ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 1 Category: Clinical Vignette

Program: Ascension Macomb Hospital
Program Director: Deborah Jo Levan, DO
Presenter: Rani Kattoula
Additional Authors: Issam Turk

Unusual Case of Pleuritic Chest Pain: Pancreaticopleural Fistula with Co-Infection

Pancreatico-pleural fistulas are a rare complication of chronic pancreatitis seldomly reported in the literature as they are often obscured in early imaging and may not be suspected in patients without history of pancreatic disease. This case presents a 53 year old woman with no known history of pancreatitis that presented with left sided pleuritic chest pain. Initial CT demonstrated a left sided pleural effusion with lesion in the pancreatic tail with possible loculated contiguous pseudocysts, and masses in the right adrenal gland. After a rapid response was called for hypoxia, interventional radiology proceeded with immediate thoracentesis that demonstrated dark fluid resembling bile. A post-drainage MRI revealed a decrease in peripancreatic fluid collection size which raised suspicion for fistulization. Fluid analysis also demonstrated concurrent E. Coli and Atopobium Rimae co-infection and patient was started on antibiotics. After pigtail catheter placement, IR proceeded with a fistulogram which confirmed the pancreaticopleural fistula. Imaging and cytology eventually ruled out malignancy. Given the history, this had likely started as an infected pseudocyst related to undiagnosed acute versus chronic pancreatitis which eventually caused the fistula. Indeed, this is a very rare case with a series of multiple complications as it brings into question of malignancy versus infection for the origin, when both were plausible. This case may educate the clinician to broaden the differential for such atypical presentations and possibly siren and bring question to the current management in a rather under-explored complication.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 2 Category: Clinical Vignette

Program: Ascension Macomb Hospital
Program Director: Deborah Jo Levan, DO
Presenter: Aye Thet
Additional Authors: Priyanka Pandey, DO. Cassie Konja, DO. Tarik Hadid, MD

Beta-HCG Secretion by Pulmonary Adenocarcinoma in Male

Paraneoplastic secretion of beta human chorionic gonadotropin (B-HCG) in primary non-small cell lung cancer(NSCLC) - specifically adenocarcinoma has been rarely reported. Although paraneoplastic syndromes occur in approximately 10-20% of lung cancer, they are more commonly associated with small cell lung cancer(SCLC) which share a neuroendocrine lineage. B-HCG is a specific tumor marker found on trophoblastic tumors of the placenta and gestational tumors, rarely seen in association with lung malignancies. Some studies involving SCLC have shown serum B-HCG immunoreactivity could be a marker of more resistant tumor and of poor prognosis. In our literature search there are only three reported cases of B-HCG secreting NSCLC. Here we report a 48yr old male patient with a history of multiple sclerosis, Graves disease, and remote smoking history who presents with severe unrelenting lumbar back pain and sciatica. Imaging revealed multiple lytic bone lesions of the cervical, thoracic and lumbar spine region with tumor extension and compression of L3 vertebra. Multiple necrotic mediastinal lymph nodes were also noted. Malignancy workup revealed isolated elevation of serum B-HCG without any evidence of testicular mass on ultrasound. Patient underwent emergent lumbar decompression and L2-L4 laminectomy. Pathology report of biopsied L3 tumor mass revealed metastatic poorly differentiated adenocarcinoma consistent with lung primary. Patient is currently undergoing treatment with systemic chemotherapy and radiation. In conclusion, identifying and reporting this rare but possible expression of B-HCG in primary lung adenocarcinoma may help in establishing its role as a prognostic indicator and possible marker in monitoring treatment.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 3 Category: Clinical Vignette

Program: Ascension Providence Hospital - Southfield
Program Director: Robert Bloom, MD, FACP
Presenter: Mohammad Al Darawsha
Additional Authors: Rushdah Malik MD

The First Case Reported in Literature of Brevundimonas Vesicularis Infection in an AIDS Patient

Introduction

Infections with Brevundimonas vesicularis is extremely rare with less than 50 cases were reported in the medical literature. We did not find a single case of infection with Brevundimonas vesicularis being reported in the setting of an HIV/AIDS patient.

Case Presentation

A 49 year old African American female with known history of HIV/AIDS, presented with 1 week history of fever and generalized abdominal pain. On exam; she was febrile, lethargic with generalized abdominal tenderness. A small skin tender ulcer at the right gluteal area was noted without discharge. Two sets of blood culture were withdrawn and grew Brevundimonas vesicularis. Looking for the source of infection beside the skin; urine culture , chest x-ray and a CAT scan of the abdomen and pelvis were done but were unremarkable. We started our patient on IV Cefepime 1g q6hr. Patient became afebrile and improved clinically in 24 hours. Subsequent antibiotics sensitivities confirmed that bacteria was sensitive to Cefepime, Ciprofloxacin, resistant to Cefazolin, Ceftriaxone and Tobramycin. Blood cultures 2 days post antibiotics initiation were were negative for any growth. CD4 count was 54cells/mm3 upon admission and antiretroviral therapy was restarted.

Discussion

Infections with Brevundimonas vesicularis is very uncommon and management for such infection in HIV/AIDS patient was lacking. Our concerns are that such antibiotic resistant organism can be acquired as a nosocomial infection and treatment can be challenging if ever it became more prevalent. Our patient had successful uncomplicated 14 days course of IV Cefepime which is an example of how to manage such challenging infection.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 4 Category: Clinical Vignette

Program: Ascension Providence Hospital - Southfield
Program Director: Robert Bloom, MD, FACP
Presenter: Jacob Alex
Additional Authors: Alessandra Rader, Elise Landa, Arjun Trivedi, Nabeel Shabo, Steven McGraw, Leo Parsons II

Extraordinary CPK Levels in a Rare Case of Coxsackie B Induced Necrotizing Myopathy Complicated by Rhabdomyolysis

Coxsackie B infections can have varying clinical presentations, the vast majority being asymptomatic. Necrotizing myopathy and rhabdomyolysis with remarkably high CPK levels is a rare complication of Coxsackie B infections, associated with high morbidity and mortality. The following is a case of Coxsackie B4 virus causing rhabdomyolysis, necrotizing myopathy and acute renal failure.

Patient is a 28 yo AA male presenting with complaints of severe muscle weakness, body aches and decreased urine output. He stated for 3 days he had been unable to walk and needed his brother to carry him to the bathroom. He also reported flu-like symptoms several weeks prior to admission. Initial lab work showed he had a CPK level estimated at 5,366,100. He was in renal failure with severe metabolic derangements necessitating emergent hemodialysis. Despite daily dialysis CPK remained over 500,000 for several days. Work-up for autoimmune, drugs/toxins, and compartment syndrome were negative. He was positive for Coxsackie B4 with initial titers at 1:160. Muscle biopsy of the right calf revealed necrotizing myopathy consistent with viral myopathy. Over the 20-day hospitalization he continued to have dialysis and symptomatic treatment for the viral illness with some resolution of symptoms. He remained on dialysis and was transferred to LTAC for continued care.

Viral myopathies are an infrequent but dangerous cause of rhabdomyolysis. It is important to take a comprehensive history to identify viral prodromal symptoms which could necessitate broader serological testing for unusual viral species.

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Resident/Fellow Poster # 5 Category: Clinical Vignette

Program: Ascension Providence Hospital - Southfield
Program Director: Robert Bloom, MD, FACP
Presenter: Bashar Brikho
Additional Authors: Salam Brikho, MD; Sreejata Raychaudhuri, MD; Ziyad Iskenderian, MD

A Peculiar Alliance: Hodgkin's Lymphoma and Guttate Psoriasis

Nodular Sclerosing Hodgkin Lymphoma although rare, is the most common subtype and accounts for 80% of Classical Hodgkin lymphoma. While there is wide spectrum of clinical manifestations, atypical cutaneous involvement has been seldom reported and predisposition to Guttate Psoriasis has not been reported in literature.

A 23-year-old African American male with no known past medical history presented with a chief complaint of a lump on the right neck of twelve month duration and diffuse rash associated with diffuse joint pain of four month duration along with systemic symptoms & >20% weight loss. Physical examination was remarkable for lymphadenopathy of the right supraclavicular and inguinal lymph nodes along with non-pruritic, scaly hyperpigmented/erythematous papules and plaques with follicular prominence of the mid-chest and upper back. Follow up CT with contrast showed right supraclavicular, mediastinal, retroperitoneal, mesenteric & inguinal lymphadenopathy. Biopsy of the lymph node showed nodular sclerosing classical Hodgkin lymphoma. Punch & shave biopsy of the rash revealed intracorneal pustular dermatitis consistent with guttate psoriasis.

Although generalized pruritus is the most common cutaneous manifestation associated with Hodgkin's Lymphoma, new onset psoriatic lesions could reflect an atypical manifestation of the disease and may serve as a warning sign prompting further investigation. Patients with adolescent and adult-onset psoriatic rash with associated clinical findings such as lymphadenopathy or B-symptoms should be further evaluated for Hodgkin's Lymphoma with complete history and physical examination with focus on full lymph-node assessment in addition to hematologic and blood chemistry studies.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 6 Category: Clinical Vignette

Program: Ascension Providence Hospital - Southfield
Program Director: Robert Bloom, MD, FACP
Presenter: Misha Masumy
Additional Authors: Bashar Brikho, MD; Steven Miles, MD

A Multivalvular Attack by a Hungry Haemophilus

Infective endocarditis is a rare but potentially devastating infection of heart valves usually caused by staphylococcus and streptococcus bacteria. H. parainfluenzae accounts for 0.5% of cases of endocarditis and may present insidiously. However, it is unusual for it to affect multiple valves.

A 36 y.o. male presented to the ED complaining of intermittent fever and chills, palpitations, a loss of taste and smell, and shortness of breath. He tested negative for COVID-19 twice. His initial ER workup suggested a viral upper respiratory infection and he was sent home with supportive care. Nearly a month later, the patient returned with worsening shortness of breath, fevers and a new onset dry cough. The patient soon developed sepsis requiring ICU admission. An echocardiogram revealed multiple vegetations involving the tricuspid and aortic valves. He also had a remote history of opiate and cocaine use without IV use as well as poor dentition. The patient developed acute heart and multiorgan failure requiring urgent cardiac surgery to replace his aortic valve and repair the tricuspid valve despite positive blood cultures. Eventually, H. Parainfluenzae was identified in blood cultures.

Although Staphylococcus and Streptococcus species are the most common culprits of endocarditis, it is important to consider H. Parainfluenzae in a patient with a lengthy upper respiratory illness and evaluate early for a new onset cardiac murmur. An endocarditis with a subacute presentation can still cause widespread valvular destruction requiring urgent surgical intervention.

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Resident/Fellow Poster # 7 Category: Clinical Vignette

Program: Ascension Providence Hospital - Southfield
Program Director: Robert Bloom, MD, FACP
Presenter: Avery Mendelson
Additional Authors: Raphael J. Kiel MD, Ammar Y. Ali MD

Toxoplasmosis Aseptic Meningitis in a Patient Taking Tofacitinib (Xeljanz)

A proliferation of disease modifying agents has transformed treatment guidelines of autoimmune disease. One such novel medication is Tofacitinib, a Janus Kinase inhibitor. This case describes a likely infectious complication of this disease modifying anti-rheumatic drug.

Our patient is a 55-year-old female with a history of psoriatic arthritis taking Tofacitinib. The patient on admission had a temperature of 102.4°F in addition to severe headache, light sensitivity and neck pain. A CT scan of the head was unremarkable, so a lumbar puncture was performed in the emergency department. The cerebral spinal fluid (CSF) was colorless, protein and glucose levels were in the normal ranges, and there was no laboratory evidence of infection. Despite the unremarkable CSF, the patient had persistent symptoms and high fevers. Due to her medication induced immunocompromised state, further evaluation for aseptic meningitis was ordered. CSF analysis for, Enterovirus, and HSV were negative. Analysis for fungal etiologies; Cryptococcus and Histoplasmosis was negative. The patient acknowledged a history of woodland camping as well as having cats in the home. A Lyme serology was found to be unremarkable, but toxoplasmosis IgM was elevated at >4.0 AI and there was a slight elevation in toxoplasmosis IgG, 10 IUnits/ml. Sulfamethoxazole-Trimethoprim with weight based dosing was initiated and Tofacitnib was discontinued. As an outpatient she was found to have further elevation in her toxoplasma IgG, to 55 IUnits/ml consistent with an acute toxoplasmosis infection. It was suspected that she developed this opportunistic infection de to use of her disease modifying medication, Tofacitinib.

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Resident/Fellow Poster # 8 Category: Clinical Vignette

Program: Ascension Providence Hospital - Southfield
Program Director: Robert Bloom, MD, FACP
Presenter: Abhiroop Verma
Additional Authors: Leo Reap, DO; Adam Forman, MD

Thinking Outside the Bottle: Non-Alcoholic Wernicke's Encephalopathy

Wernicke's encephalopathy (WE) is a neuropsychiatric emergency resulting from severe thiamine deficiency. Chronic alcohol abuse is traditionally the leading cause however is not exclusive. Non-alcoholic causes contribute to approx 23% of cases but are vastly under-reported.

We present a case of a 66-year-old non-alcoholic man with a history of HPV-related squamous cell carcinoma of the oropharynx who was hospitalised for intractable nausea and vomiting during treatment for his radiotherapy. Following completion of radiotherapy, the patient developed significant encephalopathy, characterized by memory disturbances, disorientation, and confabulation. His exam revealed a new-onset horizontal nystagmus prompting suspicion for WE. A diagnosis of Wernicke's encephalopathy was made in view of the clinical evidence and he was started on IV thiamine with gradual improvement over the subsequent weeks.

Wernicke's encephalopathy has a mortality of 10-15% which is estimated to be under-reported. If timely intervention is not initiated, permanent neurological damage can occur. WE can be difficult to diagnose due to its subtle clinical presentation. Additionally, a large number of diagnostic mimics often confound the diagnosis, exacerbated further that the classical clinical triad is only seen in approximately 10% of cases. Given the high morbidity but ease in treatment of this disorder, it is of paramount importance that a low threshold for suspicion be considered. This case highlights that clinicians should be cognizant of the non-alcoholic causes of WE as the diagnosis can easily be missed in specific patient populations.

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Resident/Fellow Poster # 9 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Hiba Al Jammala
Additional Authors: Kootaybah Al Sheikhly MD, Donaghue Jason MD

Cavitary Lesion in Legionella Pneumonia Serotype 1 in an Immunocompetent Host

BACKGROUND: Legionella bacteria are aerobic, gram-negative intracellular bacillus, mostly known to cause pneumonia in individuals with risk factors such as immunocompromised state, tobacco use, chronic organ failure, or age older than 50 years. Legionella typically produces focal parenchymal opacities and lobar consolidation. We report a rare case of a cavitary lesion due to legionella serotype 1 infection in an immunocompetent patient.

Case presentation: The patient is a 27 years old female patient with past medical history of hypertension, developmental delay, diabetes, epilepsy, ADHD presented after having a seizure. She had a cough, fever, chills, nausea and diarrhea for two days prior to presentation. At the time of presentation the patient had severe sepsis. Imaging revealed a consolidative lesion in the Left upper lobe and left lower lobe. The patient was admitted to the ICU, and the urine legionella antigen was positive. She received a 14 day course of azithromycin, and 5 days of levofloxacin without clinical improvement. Repeated imaging showed progression of infiltration which extended to involve both lungs. On day 14 of admission, she developed a cavitary lesion in the left upper lobe, in addition to diffuse pulmonary infiltrates. At that time the patient had developed multiorgan failure and expired despite optimal medical management.

Conclusion: Legionella Pneumonia commonly presents as unilobar consolidation, patchy infiltrate, and occasionally bilateral involvement with pleural effusion. Cavitation and lung abscess are seen in 10% of cases. Cavitary lesions in an immunocompetent host are extremely rare.

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Resident/Fellow Poster # 10 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Rahmah Aldoulah
Additional Authors: Daniel Lebovic, MD

Primary Autoimmune Myelofibrosis with Severe Anemia. A Steroid-Reponsive Cause of Bone Marrow Fibrosis

Introduction: Autoimmune myelofibrosis (AIMF) is an underrecognized cause of nonmalignant bone marrow fibrosis which occurs in the presence or absence of a defined systemic autoimmune disease. Patients with AIMF present with cytopenias and autoantibodies, and have a distinctive nonclonal myelofibrosis on bone marrow examination. AIMF is distinguished from primary myelofibrosis (PMF) by the absence of splenomegaly, eosinophilia, or basophilia, and the absence of abnormal myeloid, erythroid, or megakaryocytic morphology.

Case: A 57-year-old female with past medical history of hypothyroidism, hypertension presented with increasing fatigue. Physical exam was normal and did not reveal hepatomegaly or splenomegaly. Laboratory evaluation revealed severe anemia of hemoglobin (5.6 mg/dL), WBC and platelets within normal limits, erythropoietin (943 munit/mL), LDH (245 unit/L) and ANA was negative. She received blood transfusion and subsequently became transfusion dependent. Evaluation by GI was unremarkable. Hematology/oncology was consulted, and tests for mutations in the Janus kinase-2 (JAK-2), thrombopoietin receptor (MPL) and calreticulin (CALR) genes were all negative. Bone marrow biopsy revealed fibrosis with reduced megakaryocytogenesis, erythropoiesis, granulocytogenesis.

Patient was initially misdiagnosed with PMF. Severe anemia as the presenting manifestation of what was ultimately diagnosed as AIMF. She responded well to glucocorticoids. Symptoms resolved completely following steroid treatment. After withdrawal of the treatment her symptoms recurred.

Discussion: Our case sheds light on AIMF which contributes to cytopenias in a subset of patients. Distinguishing between PMF and AIMF is of utmost importance because the prognosis and therapeutic options are different, as the latter responds to steroid treatment.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 11 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Khalid Alfares
Additional Authors: Khalid Alfares, MD; Eric Sandrock, DO; William Dillon, DO
Ascension St. John Hospital, Detroit, Michigan

Hypertensive Emergency Secondary to Renal Artery Stenosis Due to Antiphospholipid Syndrome

Introduction:
Secondary causes of hypertension result in "treatment-resistant" hypertension. Renovascular disease is among the most common causes. Renal involvement in primary antiphospholipid syndrome is characterized pathologically by noninflammatory occlusion of a broad spectrum of renal blood vessels, ranging from glomerular capillaries to the main renal artery and vein.

Case:
64-year-old Caucasian female with a past medical history of DVT and panic attacks, presented after several hours of acute onset severe shortness of breath. On presentation: BP was 240/140, blood work revealed an elevated creatinine, chest x-ray showed severe cardiomegaly, suspected COPD, and basilar linear changes consistent with atelectasis. CTA abdomen/chest/pelvis showed complete occlusion of the right renal artery at the origin. Hematology/oncology was consulted, and a hypercoagulability work-up was performed. The patient was diagnosed with antiphospholipid syndrome and was started on Coumadin, with a heparin bridge, as well as, aspirin. Patient was also started on lisinopril and amlodipine for blood pressure control. At discharge the patient’s blood pressure was well controlled and her renal function normalized.

Discussion:
Our case highlights renal artery occlusion in antiphospholipid syndrome, leading to hypertensive emergency, as a potentially correctable cause of secondary hypertension.

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Resident/Fellow Poster # 12 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Muneer Al-Husseini
Additional Authors: Al-Husseini, Muneer MD, Gandhi, Nikhil DO, Kafri, Zyad MD, Kamath, Raghavendra MD

Left Flank Pain in a Recently Recovered COVID-19 Patient , a Case Report

Introduction: Hypercoagulability is reported in patients with COVID-19 with an estimated incidence of 25% in ICU patients. Hypercoagulability related thromboembolism should be considered in the differential in the presentation of patients with previous COVID-19 infection.

Case Description: A 32-year-old male with a history of AFIB, and COVID-19 infection two months ago presented with left flank pain. He denied fever or urinary symptoms. On exam, he was afebrile, with CVA tenderness present. COVID-19 testing was negative, and labs revealed mild leukocytosis, elevated fibrinogen, and normal d-dimer. UA showed moderate blood without white cells. CTA abdomen revealed a mass-like area, possibly focal pyelonephritis, versus infarct in the upper pole of the left kidney. We started heparin, as he had no other findings supportive of pyelonephritis. He failed to improve. Repeated CT abdomen showed evidence of an abscess. Consideration was for renal necrosis from arterial embolism or sepsis-related to pyelonephritis. The patient was started on Vancomycin and Cefepime. He underwent drainage of the abscess with culture growing MRSA. TEE was normal. The patient's clinical condition improved and was discharged on oral antibiotics, and anticoagulants.

Conclusions: It is unclear if the renal infarction can be entirely attributable to hypercoagulability related to COVID-19 infection. It is, however, important to consider hypercoagulability related sequelae in COVID-19 patients, even after recovery from the disease, and assessment of the need for continued anticoagulation based on developing guidelines in the treatment of COVID-19 patients.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 13 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Mohamad Ayas
Additional Authors: Eliza Akagi Fukushima MD, Virginia Zacharias MD, Paul F Mazzara MD, Mamta Sharma MD

Malignant Psoas Syndrome: A Rare Case of Endometrial Carcinoma with Psoas Muscle Metastasis Mimicking a Psoas Abscess

Introduction: Malignant psoas syndrome (MPS) is a rare entity described as malignant involvement of the psoas muscle with ipsilateral lumbar plexopathy and painful hip flexion and can mimic psoas abscess. Psoas muscle involvement is considered to result from direct metastasis or extra-nodal extension from regional lymph nodes. The pain is distressing without effective treatment. We describe a case of MPS with literature review.

Case: A 73-year-old female with a history of chronic back pain, spinal stenosis and laminectomy, presented with progressive lower extremity weakness and numbness for 2 weeks. Vital signs were normal. Laboratory data showed a white blood count of 35 k/mcl, with normal sedimentation rate. Examination showed 3/5 strength in the right hip flexor, and diminished bilateral lower extremity sensation. Computed tomography (CT) of the chest/abdomen/pelvis showed bilateral lung nodules, right psoas muscle expansion concerning for abscess and pelvic mass. Endometrial biopsy showed adenocarcinoma. CT-guided biopsy of the psoas muscle was consistent with metastatic carcinoma of endometrial origin. Patient elected to enroll in hospice and refused radiation.

Methods: We searched PubMed for cases of MPS using appropriate keywords.
Results: On literature review, 42 cases of MPS were identified. Female genital tract malignancies, 31% (13/42) were the most common, followed by gastrointestinal (19%) and urinary tract (19%,) malignancies. Median survival duration was 5.5-10.7 months after diagnosis.

Conclusion: MPS can mimic psoas abscess. Increased recognition and early detection may allow patients to receive possible therapeutic options and improve their quality of life in end-stage cancer.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 14 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Mujtaba Cherri
Additional Authors: Swisher Jordan MD, Gandhi Nikhil MD, Rozzell Donald MD

The Great Escape: A Drug-Induced Junctional Rhythm

Carbamazepine is a widely used antiepileptic drug given for the treatment of both partial and generalized seizures as well as mood stabilization. It can induce both negative chronotropic and dromotropic effects on the cardiac conduction system resulting in significant complications. We report a case of cardiac syncope due to symptomatic junctional bradycardia secondary to unintentional Tegretol overdose.

This is a 63-year-old male with a history of seizure disorder and schizophrenia who presented with lightheadedness and dizziness with loss of consciousness. He takes both Tegretol and Seroquel for seizure disorder and schizophrenia. He stated he ran out of his Seroquel and was taking multiple doses of his Tegretol for approximately 3 days. He began to experience chest tightness with dizziness and lightheadedness leading to him losing consciousness. On presentation, heart rate was in the 40s and ECG showed bradycardia with junctional escape rhythm. Serum carbamazepine concentration was ordered and came back elevated at 12.2 and it was then subsequently held with patient being placed on cardiac telemetry. Thyroid function tests came back normal as well as an echocardiogram. Repeat carbamazepine concentration the next two days gradually became normal with repeat ECG showing resolution of junctional escape rhythm and no events noted on cardiac telemetry.

Even though sinus tachycardia is one of the most frequently observed cardiac side effects of carbamazepine overdose, atrioventricular blocks with associated junctional escape rhythms have been reported and need to be considered in the differential diagnosis. Medication reconciliation should be always considered in patients presenting with cardiac arrhythmias.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 15 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Jacob Compton
Additional Authors: Benjamin Huber, DO, Farah Tanveer, MD

Occam's Razor Except in Human Immunodeficiency Virus (HIV): A Case of Sepsis Resulting From Salmonella Eustacian Valve Endocardi

INTRODUCTION

HIV impacts the diagnostic work-up of patients presenting with sepsis as multiple individual infectious etiologies can be present the same time thus deviating from the classic dogma that all symptoms result from single etiology.

CASE PRESENTATION

A 37-year-old Caucasian female with history of untreated HIV who presents with worsening dyspnea for weeks that was initially present with exertion but now present at rest with associated cough with minimal sputum production and weight loss. Patient also endorses a swollen, warm and painful right lower extremity with purulent drainage. Patient was septic and hypoxic with x-ray and computed tomography consistent with PCP. Blood cultures were obtained and demonstrated bacteremia with Salmonella and echocardiogram was obtained demonstrating eustachian valve endocarditis. Abscess wound culture demonstrated MRSA. Patient was sent home on prophylactic dose Bactrim, HIV therapy and ciprofloxacin given her penicillin allergy and refusal of intravenous antibiotics.

DISCUSSION

Patient's with HIV can have multiple sources of infection simultaneously. Bacteremia with organisms that do not correlate with initial source of sepsis should prompt further diagnostics such as Echocardiogram. Bacterial translocation from gram negative enteric organisms should always be considered. Eustachian Valve endocarditis should be treated the same as native valve endocarditis with four to six weeks of intravenous antibiotics.

CONCLUSION

Immunosuppressed patients should be assessed for sources of infection with a broad differential and all cultures should be compared to the likely pathogen for our suspected source in order to assess whether alternative sources and further diagnostic studies are needed.

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Resident/Fellow Poster # 16 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Nikhil Gandhi
Additional Authors: Mujtaba Cherri MD, Stephan Craig, MD, Keith Bellovich DO

Destruction of the Ferrous Wheel: An Acquired Methemoglobinemia

Introduction:
Rasburicase, a recombinant urate-oxidase enzyme, is frequently used in tumor lysis syndrome (TLS).1 Although well tolerated, it may cause severe oxidative hemolytic anemia and methemoglobinemia in patients with glucose-6-phosphate dehydrogenase (G6PD) deficiency.

Case Report:
We present a 67-year-old male with a past medical history of chronic myeloid leukemia (CML) who presented to the hospital after being seen in clinic for abnormal labs. The patient was treated with hydroxyurea while initial diagnosis of CML was being established. The patient was diagnosed and evaluated for hematopoietic stem cell transplant but no match was available. The patient completed 14 cycles of decitabine and had good response. Due to the COVID-19 pandemic, his treatment was delayed and he developed a worsening leukocytosis, thrombocytopenia and kidney dysfunction. G6PD deficiency screening was drawn however did not result. He was then restarted on decitabine and developed TLS. Allopurinol was contraindicated so the choice to administer rasburicase was made. He subsequently developed shortness of breath, malaise, dark urine, nausea, and body aches. Physical exam revealed marked jaundice and labs were consistent with an acute hemolytic anemia. The patient was treated with multiple red blood cell transfusions and intravenous fluids. Fortunately, he fully recovered.

Conclusion:
Patients from particular ethnicities, in which G6PD deficiency is prevalent, should be screened prior to administration of rasburicase. This case highlights the need to be familiar with this complication and its management.3

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Resident/Fellow Poster # 17 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Harish Gidda
Additional Authors: Dr. David Rodriguez, Dr Jordan Swisher PGY II

Coronary Artery Ectasia

Coronary artery ectasia (CAE) is a rare disease defined as dilation > 1.5 times its normal diameter. It is often not diagnosed until patients develop stable angina or MI and is most strongly associated with atherosclerosis, Kawasaki disease, and connective tissue diseases. Here we present a case of a healthy, athletic young male with none of the aforementioned risk factors.

33 y/o male with no significant past medical history presented with three days of progressively worsening non-radiating chest tightness that was relieved with nitroglycerin. His troponins were elevated at 0.85 and 1.16. EKG was significant for a junctional escape rhythm but no ST-T wave changes. He was started on a heparin drip for concerns of NSTEMI. Echo with EF of 60-65% with basal to mid inferior wall hypokinesis. Coronary catheterization revealed large ectatic RCA with complete thrombotic occlusion of PLB1 and ostial PLB2 with thrombus present in the proximal RCA as well. No stents were placed and medical management was pursued with dual antiplatelet therapy and 24 hour integrilin drip. Twenty four hours later, the patient was asymptomatic, back in normal sinus rhythm and discharged home with DAPT, statin and beta blocker.

This patient had classic findings of CAE, with single vessel involvement of the right RCA leading to an NSTEMI. However, he did not have any of the classic risk factors associated with CAE. Due to its rarity, evidence based treatment is lacking.

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Resident/Fellow Poster # 18 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Madhav Kapila
Additional Authors: Elizabeth Bankstahl, MD

Suspected Metastatic Adrenocortical Carcinoma

Introduction

Adrenocortical Carcinomas are rare cancers that have an incidence of about 1 in a million. They are often aggressive tumors that may produce functional hormones. The presenting symptoms will be dependent on which hormones are produced. These tumors generally develop in early childhood or middle age.

Case Presentation

A 59-year-old male with a history of hypertension presented due to complaints of generalized fatigue, lower extremity edema and abdominal pain. He stated this had been going on for several months and he had been evaluated at other hospitals. On examination, the patient had significant abdominal ascites and pitting edema throughout his lower extremities. A CT scan showed extensive intraperitoneal and intrathoracic metastatic disease. There was also a soft tissue mass that obscured the adrenal gland and part of the right kidney.

Lab results during this admission were significant for a newly elevated testosterone level >1500, elevated androstenedione 12.568, elevated AM cortisol 50, elevated DHEA sulfate at 2661.5, and low ACTH, <3. Paracentesis was performed and cytology showed signs of metastatic malignant neoplasm with neuroendocrine features. The patient deteriorated, and the decision was made to go hospice prior to any biopsy being obtained.

Case Discussion

This illustrates a potential case of metastatic adrenal carcinoma. Unfortunately, many patients present late in the disease course after the cancer has spread. Prognosis is dependent upon the stage of the cancer. The majority of cases are sporadic. However, some are components of Li-Fraumeni syndrome, Beckwith-Wiedemann syndrome, or MEN1. Better understanding of adrenal carcinoma is needed.

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Resident/Fellow Poster # 19 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Thomas Loss
Additional Authors: Bishoy Abraham, MD, William Ventimiglia, MD

Acute Necrotizing Pancreatitis Complicated by Sepsis and Adult Respiratory Distress Syndrome as a Result of a Dime Ingestion

Introduction

Foreign body ingestion is common in children but unusual in adults. Necrotizing pancreatitis (NP) is a major cause of morbidity and mortality in acute pancreatitis. We present a rare case of NP and adult respiratory distress syndrome (ARDS) complicating dime ingestion in adult patient.

Case Presentation

A 72-year-old Caucasian female with no significant past medical history presented with acute epigastric abdominal pain and unremitting vomiting. Laboratory work was remarkable for highly elevated lipase, conjugated hyperbilirubinemia, and transaminitis. CT abdomen demonstrated pancreatitis, duodenitis, biliary dilation, and evidence of round radio-opaque foreign body in the pylorus. A dime was successfully removed via upper endoscopy. However, the hospital course was complicated by NP as evident in repeat CT and sepsis. In addition, the patient developed respiratory distress and was diagnosed by ARDS. The patient ultimately succumbed to death.

Discussion

In acute pancreatitis, disease severity can vary from a mild uncomplicated course to a severe life-threatening course with subsequent systemic complications. Approximately 15 percent of these patients develop NP involving necrosis of pancreatic parenchyma, peripancreatic tissue, or both. Approximately one-third of patients with pancreatic necrosis develop infected necrosis. Acute lung injury causing ARDS is a well-known complication of NP and sepsis.

Conclusion

Ingestion of a foreign body may have served as a nidus to this patient’s pancreatitis. It is a concern primarily encountered in pediatric cases; however, ingestion of a foreign body should not be ruled out in the adult population until thorough history and appropriate diagnostic workup obtained.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 20 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Beshoy Nazeer
Additional Authors: Beshoy Nazeer, M.D., MSc; Jessica Misich, M.D.; Safa Maki, M.D., MPH; Antonious Attallah, M.D., FACC Ascension St John Hospital,

Achy Breaky Stent: Persistent Angina Due to Coronary Stent Fracture

Introduction:
Coronary Stent Fracture is where stents placed in coronary artery disease become damaged and break. This is usually asymptomatic , but may lead to sudden cardiac death.

Case:
70-year-old male with history of CAD, diabetes mellitus, peripheral atrial disease, hypertension, lung cancer, and hyperlipidemia presented with left sided facial droop and dysarthria. Patient had symptom resolution and was diagnosed with transient ischemic attack. The patient was scheduled for a diagnostic cardiac catheterization to evaluate for ongoing anginal symptoms. He underwent cardiac catheterization that showed reduced flow and possible stent thrombosis in the mid LAD. This was followed by intravascular ultrasound (IVUS), revealing a fractured stent. Patient underwent subsequent cardiac catheterization with multimodal imaging, including optical coherence tomography (OCT), followed by laser atherectomy and balloon angioplasty. Repeat OCT and IVUS showed improved flow, after which point 3 new DES stents were placed. Patient was discharged the next day without any anginal or TIA symptoms.

Discussion:
Coronary stent fracture is a rare condition with unknown true incidence rate. This rate is likely underestimated due to the potentially asymptomatic nature of the condition. It may not easily be detected on standard angiography, or may present with stent thrombosis and could lead to sudden cardiac death. The use of multimodal imaging will likely increase the incidence of reported cases. Improved imaging modalities such as IVUS and OCT may have beneficial utility, as they require the use of less contrast, and likely reduce the risk of contrast induced nephropathy during cardiac catheterization.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 21 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Sara Samaan
Additional Authors: Leonard Johnson MD, FACP

Cryptococcemia Secondary to Corticosteroid Use in Metastatic Non-Small Cell Lung Carcinoma

Introduction: Cryptococcosis is typically seen in immunocompromised patients, with cryptococcemia being associated with higher risk of mortality. We present a fatal case of cryptococcemia in the setting of corticosteroid use for the treatment of brain metastasis in lung cancer.

Case: A 66-year-old female with non-small cell lung carcinoma with metastases to the brain, liver, and adrenal glands, and chronic dexamethasone use, presented with dyspnea, anorexia, and failure to thrive. Her dexamethasone dose was increased one week prior due to enlargement of metastatic lesions and vasogenic edema noted on CT of the head. On physical exam, she was afebrile and hemodynamically stable, but appeared lethargic, cachectic, and had right upper quadrant tenderness. Initial labs were remarkable for WBC 33 000, lactic acid 8.7, ALT 1021, and AST 2458. Chest x-ray revealed bilateral pleural effusions greater on the left. Blood cultures were drawn, and the patient was started on vancomycin and ampicillin-sulbactum for empiric coverage. The patient was then switched to ceftriaxone due to suspicion for an intraabdominal source of sepsis with rising liver enzymes. However, she continued to deteriorate and became more lethargic. On day 5, blood cultures grew Cryptococcus neoformans. Due to the patient's poor prognosis, the decision was made to pursue hospice care and the patient expired shortly afterwards.

Discussion: In addition to AIDS and transplant recipients, patients on chronic corticosteroids are at risk for disseminated cryptococcal infections. Clinicians should consider this in the differential diagnosis of patients on chronic corticosteroids and sepsis.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 22 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Heidi Stoute
Additional Authors: Dominic Brink, MD, Donald Rozzell MD, FACP Ascension St. John Hospital

Primary Pulmonary Angiosarcoma: A Rare Malignancy with a Poor Prognosis

Introduction: Angiosarcoma is a rare malignant neoplasm that accounts for 1 in 10,000 cancer diagnoses. Angiosarcomas are associated with a poor prognosis due to tumor size, histological grade, positive margin status, deep location and metastasis at time of diagnosis. Most cases occur in the skin, liver, spleen and breast.

Case presentation: A 49-year-old female with past medical history of recently diagnosed lung cancer and tobacco use presented with dyspnea for one day during chemotherapy. In the emergency department, she was tachycardic and tachypneic with diminished left-sided breath sounds. Initial labs were significant for anemia, leukocytosis and hyponatremia. A chest X-ray showed a large left pleural effusion. Chest CT showed multiloculated left pleural effusion, progressive pleural thickening and bilateral pulmonary masses with near complete left lung collapse. A pigtail catheter drained 250cc of bloody output with no evidence of malignancy on cytology. Initial suspicion was for primary lung carcinoma, but pathology was consistent with angiosarcoma. Throughout the patient's hospitalization, she became more dyspneic and required multiple blood transfusions. Gemcitabine was administered, but repeated chest X-ray showed complete opacity of the left chest with developing right lung masses. Chemotherapy was stopped, and the patient was discharged home with hospice, and died the following day.

Discussion: This case serves to highlight that angiosarcomas are rare tumors with poor prognosis due to their aggressive nature. While additional research is needed to find more effective treatments for angiosarcoma, the rarity of this condition makes it difficult to study.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 23 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Jordan Swisher
Additional Authors: Dr. David Rodriguez, Dr Mujtaba Cherri PGY II

Once, Twice, Three Times a Dissection...

Spontaneous coronary artery dissection (SCAD) is a rare disease typically occurring in young females without cardiovascular risk factors or in the peripartum period. Symptomatology is similar to other causes of ACS; making SCAD difficult to diagnose, especially in populations where arteriosclerotic disease is more prevalent.

68 year old female with past medical history of hypertension, diabetes, pulmonary embolism on eliquis, and repair of abdominal aortic aneurysm presents with complaints of typical substernal chest pressure with radiation to the right arm. Initial EKG was negative ST or T wave abnormalities, Troponins were unremarkable, and the patient was placed in the observation unit. A nuclear stress test was significant for reversible anterior wall defect; leading to hospitalization and cardiac cath. She was found to have SCAD of the mid to distal LAD with significant intraluminal hematoma in the left main. After several days of intensive medical therapy with IV heparin and nitro she continued to have significant chest pain and elevation in her troponins.

Patient underwent a second cardiac catheterization and was found to have worsening dissection now extending into LAD and left circumflex. Patient went for triple vessel CABG and eventually was discharged home in stable condition.

This case demonstrates a patient with SCAD who did not fit the typical demographic. She also had multivessel involvement, which failed medical therapy resulting in a CABG. Given the high morbidity and mortality of SCAD, it is important to include SCAD in the differential of chest pain as early recognition can be lifesaving.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 24 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Neil Umles
Additional Authors: Nikhil Gandhi, DO; Safa Maki, MD, MPH

Calciphylaxis Causing Systemic Emboli Mimicking Vasculitis

Introduction: Calciphylaxis, calcific uremic arteriolopathy (CUA), is a life threatening syndrome with poor prognosis that occurs in up to 4% of end stage renal disease (ESRD) patients and rarely in earlier stages of chronic kidney disease (CKD). It is characterized by microvessel occlusion in the subcutaneous adipose tissue and dermis resulting in painful ischemic lesions.

Case: A 72-year-old Caucasian female with stage IV CKD and uncontrolled diabetes presented with multiple, painful ulcerations on digits, splinter hemorrhages and necrotic lesions on bilateral shins. Few weeks prior she developed ischemic optic neuritis and giant arteritis was ruled out with normal ESR. Endocarditis was suspected but transesophageal echocardiogram and blood cultures were negative. Hypercoagulability and vasculitis work-up was performed and was negative for scleroderma, sarcoidosis, systemic lupus erythematosus, rheumatoid arthritis, cryoglobulinemia, ANCA-vasculitis and antiphospholipid syndrome. Her creatinine was at baseline but she had elevated phosphate level of 10.5 mg/dL and parathyroid hormone of 721 pg/mL and normal calcium level. Plain radiograph of bilateral hands, lower extremity arterial duplex and retroperitoneal ultrasound demonstrated heavily calcified arteries further raising the clinical suspicion of calciphylaxis. She was started on empiric systemic steroids and a phosphate binder with symptomatic improvement. Skin biopsy confirmed the diagnosis by showing multifocal calcifications in subcutaneous adipose tissue without evidence of vasculitis.

Discussion: CUA is often overlooked or misdiagnosed due its nonspecific presentation and extreme rarity in patients without ESRD. Unfortunately, it has a six-month mortality over 50% making rapid diagnosis essential to limit further progression of this disease.

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Resident/Fellow Poster # 25 Category: Clinical Vignette

Program: Ascension St. John Hospital - Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Wei Zhao
Additional Authors: Zhao, Wei, M.D. Ph.D., Abraham, Bishoy, M.D., Moudgil, Shyam, M.D., Donaghue, Jason, M.D. Ascension St John Hospital, Grosse Poi

Rituximab-Associated Posterior Reversible Encephalopathy Syndrome

Introduction: Posterior Reversible Encephalopathy Syndrome (PRES) is a neurological disorder that frequently manifests as seizure. Patients taking immunosuppressants are at risks for developing PRES related to the direct cytotoxicity of immunosuppressants to the blood-brain barrier. We present a case of Rituximab associated PRES.

Case: A 25-year-old female with poorly controlled class IV lupus nephritis presented with status epilepticus for 15 minutes, which was successfully terminated with 10 mg of Versed. Associated symptoms included tongue biting, urinary and fecal incontinence, and postictal confusion. She was hospitalized 2 weeks prior due to active lupus nephritis, with kidney biopsy showing diffuse proliferative glomerulonephritis with crescent formation and arteritis. 1000 mg of Rituximab was initiated at that time as part of induction therapy. CT of the brain, performed for seizure evaluation, revealed multiple foci of vasogenic edema in the cerebral hemispheres. The Fluid-attenuated inversion recovery showed multiple hyperintense signals predominantly in the bilateral occipital lobes. These MRI patterns were consistent with PRES in the clinical context of recently introduced Rituximab and active lupus nephritis. Rituximab was withheld. Her seizure was managed with levetiracetam.

Discussion: Rituximab has been reported to be involved in the development of PRES in patients treated for lupus nephritis flare. PRES occurs hours to days after Rituximab infusion. The risks and benefits of Rituximab use as part of induction therapy should be individualized for each patient with lupus nephritis flare. Ritiuximab achieves a higher response rate, but this must be balanced with the associated risk of PRES.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 26 Category: Clinical Vignette

Program: Beaumont Hospital – Dearborn
Program Director: Ruaa Elteriefi, MD, FACP
Presenter: Nourelhuda Abbas Hamed
Additional Authors: Majd Faraj,BS, Asadullah Mahmood, MD, Falgun C.Patel,MD

Wernicke Encephalopathy and Bariatric Surgery: An Overlooked Link

Introduction:
Without proper nutritional supplementation postoperatively, Bariatric surgery can lead to Wernicke Encephalopathy, a devastating neurological complication caused by thiamine (B1) deficiency. It may resemble Guillian- Barre syndrome (GBS) or stroke. Here we present a case of a patient developing Wernicke encephalopathy after sleeve gastrectomy who presented with ophthalmoplegia, ataxia, and mimicking GBS symptoms. It was evident that thiamine Supplementation ultimately resolved the symptoms.

Case description:
A morbidly obese 34-year-female status-post sleeve gastrectomy two months prior to presentation presents with diplopia, dizziness, auditory symptoms and ataxia. The post-surgical course involved recurrent nausea and vomiting requiring hospitalization. Physical examination revealed wide-based gait in addition to the ocular finding of mild left ptosis, restricted abduction, adduction, infraduction, and nystagmus. Initial CT and CTA head were unremarkable. Lumbar Puncture to rule out the Miller Fisher variant of GBS was unremarkable. MRI/ MRV of head and orbit revealed T2 flair hyperintensity around cerebral aqueduct. Lab work was negative for HIV, syphilis, and Acetylcholine antibodies. TSI and TSH levels were normal. B1 level was very deficient (19 nmol/L). Her symptoms improved significantly within days after B1 replacement.

Discussion:
Wernicke encephalopathy is a triad of mental confusion, ataxia, and ophthalmoplegia. Promptly diagnosed, it responds well to B1 replacement. Left untreated, it can lead to permanent damage and death. It can mimic other neurologic diagnoses with worse prognosis requiring extensive workup. Therefore, B1 deficiency should be considered in post-bariatric surgery patients with above symptoms and B1 should be replaced before proceeding with extensive workup.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 27 Category: Clinical Vignette

Program: Beaumont Hospital – Dearborn
Program Director: Ruaa Elteriefi, MD, FACP
Presenter: Hana Manzoor
Additional Authors: Hana Manzoor, MD; Arpan Patel, MD; James Richard Spears, MD

Vaping to a Path of Sudden Cardiac Arrest ... Twice?

Introduction:
The rise in electronic-cigarette (EC) has recently risen detrimental effects on acute lung injury. It is speculated that EC is safer than traditional cigarettes (TC) in regard to cardiovascular effects. We present a case of an EC smoker with no known cardiovascular history, who experienced two cardiac arrests within 24 hours.

Case
A 28-year-old male presented to the emergency department after a witnessed unresponsive event while being engaged in sexual activity. He was defibrillated at the scene by the paramedics due to ventricular fibrillation (VF). He was a former cigarette smoker for ten years until recently he transitioned to EC with tetrahydrocannabinol (THC), using the device just prior to his arrest. Lab work showed hypokalemia and elevated cardiac enzymes which normalized. Within 24 hours, he underwent another episode of VF and was again defibrillated. Cardiac catheterization demonstrated non-ischemic cardiomyopathy and normal coronary arteries with improved ejection fraction from 30% to 55%. An implantable cardioverter-defibrillator was implanted upon discharge.

Discussion:
The cardiovascular effects of atheroma formation and arrhythmogenic risk have been noted with EC use due to its prominent effect of nicotine. However, other components of EC like particulates, flavors and THC, have not shown an association with adverse cardiovascular effects. Recent studies have shown arterial stiffness and hemodynamic changes in EC smokers, but it is unknown whether this has a long-term implication due to the lack of prospective studies. The establishment of safety and efficacy for EC’s is needed for highlighting hazardous effects on cardiovascular health.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 28 Category: Clinical Vignette

Program: Beaumont Hospital – Dearborn
Program Director: Ruaa Elteriefi, MD, FACP
Presenter: Omar Nasser Rahal
Additional Authors: Luxhman Gunaseelan, Fereshteh Bafrani, Harman Fervaha, Mustapha Mallah

A Novel Cobiotic Containing a Prebiotic and an Antioxidant Improves Symptoms of Psoriasis and Psoriatic Arthritis: A Case Study

Introduction

The gut microbiome plays an important role in the regulation of immunologic processes. Gastrointestinal (GI) dysbiosis may be associated with immunologic inflammatory conditions such as psoriasis and psoriatic arthritis. A cobiotic consisting of purified inulin, sugar-free blueberry pomace extract, and an oat preparation of purified beta-glucan was developed for twice a day consumption as a smoothie drink to help in repairing GI dysbiosis thus providing a novel and safe target for therapy. We report a case of severe plaque psoriasis that improves with cobiotic supplements.

Case Presentation:

A 56-year-old male with a 13-year history of severe plaque psoriasis and psoriatic arthritis presents for silvery plaques with visible erythema and bleeding on the lower back in addition to extensor and flexor surfaces of bilateral elbows and lower limbs (PSAI score: 23.9). PsARC assessment revealed 24 tender joints and 16 swollen joints. The patient global assessment score was 4, and the physician's global assessment score was 4. Following consumption of Biomebliss cobiotic supplement over the next 3 months, there was a 58% improvement in PASI score (23.9 to 10.1) and noteworthy improvement in PsARC, global assessment scores, and DLQI scores.

Clinical Significance:

Psoriasis is currently managed with numerous topical emollients and systemic immune modifying agents. Topical corticosteroids can be inconvenient and time-consuming. Systemic agents such as methotrexate are associated with adverse effects such as nausea, stomatitis, hepatotoxicity, and immunocompromise. A safe supplement can improve psoriasis symptoms and can have significant improvement in health and a positive impact on the quality of life.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 29 Category: Clinical Vignette

Program: Beaumont Hospital – Dearborn
Program Director: Ruaa Elteriefi, MD, FACP
Presenter: Aminah Naveed
Additional Authors: Mallah Mustapha,MD , Faisal Musa,MD

Methotrexate Withdrawal and Complete Remission of High-Grade B-Cell Lymphoma in Rheumatoid Arthritis: A Perplexing Solution

Introduction:
Lymphoproliferative disorders are interestingly known to be a complication of both rheumatoid arthritis (RA)and methotrexate (MTX) therapy. This case describes a rare clinical and radiographic response to withdrawal of MTX therapy for the treatment of high-grade B-cell lymphoma.

Case Presentation:
A 71-year-old man with a past medical history significant for RA presented with recurrent right-sided neck swelling and tenderness with waxing and waning lymphadenopathy (LAD) for the past few months. Physical exam revealed bilateral cervical and supraclavicular LAD 1-2 cm that was firm, mobile, and non-tender. Laboratory findings revealed an elevated LDH level of 365 U/L. CT of the neck with IV contrast showed enlarged cervical lymph node (LN) chain with findings concerning for metastatic adenopathy. Repeat imaging showed interval progression with widespread LAD. Based on PET CT findings Deauville score for lymphoma staging was 4 with immunohistochemistry showing B-cell lineage and high proliferative index. LN biopsy showed EBV positive lymphoproliferative disorder. MTX therapy was withdrawn and the patient went into complete remission on subsequent laboratory tests and imaging studies.

Clinical Significance and Discussion:
This demonstrates a rare case of complete remission of high-grade B-cell lymphoma in response to withdrawal of MTX therapy. Immunosuppression and autoimmunity can both cause malignant B cell proliferation, although via opposing pathways. There are a few documented cases of complete remission with MTX withdrawal in the literature, however the mechanism remains unclear and warrants further study.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 30 Category: Clinical Vignette

Program: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Sara Aguinaga
Additional Authors: Oana Anton

Methemoglobinemia: A Rare Diagnosis Not to be Missed

Methemoglobinemia has hereditary causes, but most cases are acquired secondary to exogenous substances causing increased methemoglobin formation. Rasburicase's common use in oncology patients has rarely been associated with methemoglobinemia and hemolytic anemia, but lack of awareness of this potentially life-threatening condition can lead to delayed/missed diagnosis.

An 80-year old African-American male with a past medical history of gout and follicular dendritic sarcoma presented to the hospital for fatigue and a nonhealing wound of his left fifth finger. Patient was found to have acute kidney injury and subsequently developed sepsis for which he required broad spectrum antibiotics and amputation of his left fifth digit. A CT scan ordered as part of his septic workup revealed diffuse lymphadenopathy and biopsy revealed reoccurrence of his follicular dendritic cell lymphoma. PET scan demonstrated extensive disease. Patient had rising LDH and uric acid for which he received a single dose of rasburicase. The next day patient was found to be profoundly hypoxic on routine vital signs, although he was asymptomatic. Patient had no improvement with supplemental oxygen. ABG did not show hypoxemia but upon careful review, revealed methemoglobinemia. Laboratory studies revealed worsening anemia and a peripheral blood smear revealed frequent blister/bite cells consistent with hemolytic anemia from methemoglobinemia. Methemoglobin improved to within normal range over the next several days with discontinuation of the offending agent. Clinicians should balance the risks against benefits of rasburicase administration, especially in patients at higher risk such as those with G6PD deficiency.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 31 Category: Clinical Vignette

Program: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Ankit Arora
Additional Authors: Aciel Ahmed Shaheen, Ahmed Edhi, Mihaela Batke, Mitchell Cappell

An Unusual Cause of Chronic Abdominal Pain and Elevated Calprotectin

Introduction

Abdominal pain is a common presenting complaint in out-patient setting, with a broad array of etiologic factors. Here, we present a rare case of chronic abdominal pain caused by a retained foreign body.

Case description

A 63-year-old man with past-medical-history of COPD presented 1 year ago to the out-patient clinic with a 1.5-year history of generalized crampy abdominal pain associated with irregular bowel movements and intermittent diarrhea. Fecal calprotectin was elevated at 233 microgram/mg. Colonoscopy 6 months prior was unremarkable. CT enterography and video capsule endoscopy were unremarkable. He was treated with antispasmodics and neuromodulators with partial response. Subsequent review of medical-records revealed an incidental finding of a linear radiopaque foreign-body on an interval abdominal done for nephrolithiasis; this was present on enterography but not reported. The foreign body was reconfirmed on follow-up scans. Elective colonoscopy for foreign-body removal was delayed due to the COVID-19 pandemic. The patient was then admitted with acute on chronic abdominal pain. Flexible sigmoidoscopy revealed a very tortuous colon with a 5 cm toothpick with both ends embedded in the distal sigmoid inter-diverticular mucosa. This was removed using a rat-tooth forceps and a snare. Patient reported prompt and complete resolution of abdominal pain at 2 weeks follow-up.

Discussion and conclusions

This case report highlights the importance of careful review of medical-records in pursuing an etiologic diagnosis for chronic abdominal pain. The presence of a foreign body should be considered in the differential-diagnosis of mildly elevated fecal calprotectin in patients with chronic abdominal pain.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 32 Category: Clinical Vignette

Program: Beaumont Hospital - Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Manju Girish Chandran
Additional Authors: Dr. Giovi Grasso Knight, Dr. Ankit Arora, Dr.Claire Tighe, Dr. Mathew Schloop, Dr. Muhammed Shatila

E-Cigarette and Vaping Associated Lung Injury (EVALI) Presenting as Spontaneous Pneumothorax and Pneumomediastinum

Introduction

E-cigarette and Vaping Associated Lung Injury (EVALI) is being increasingly recognized in young adults and severe disease/deaths from the same have been reported. Being a relatively novel diagnosis, complications of EVALI are not well known at this time. Here, we report a rare case of spontaneous pneumothorax and pneumomediastinum in a patient with EVALI.

Case Description

A 19- year old female with no significant past medical history presented with chest pain and exertional dyspnea of 3 days duration. Social history was significant for ongoing vaping of both tetrahydrocanabinol and nicotine containing products. On admission she required 4L of supplemental oxygen. Examination revealed bilateral coarse crackles. WBC count elevated at 24.8 bil/L. CXR and CT chest showed bilateral ground glass opacities. Infectious workup was negative. She was started on steroids and empiric antibiotics for CAP. As clinical status improved, she was weaned down to 2L oxygen. A follow up CT on day 4 showed striking new areas of opacities, pneumothorax and extensive pneumomediastinum. She remained hemodynamically stable on supplemental oxygen. She was discharged home on day 7 of hospitalization on 2L NC and steroid taper. During her follow up, she was improving clinically with decreasing oxygen needs. Repeat CXR showed significant improvement in pneumomediastinum and pulmonary opacities.

Discussion

Our case highlights unique complications of EVALI. Given potential for life-threatening complications, early and close follow up is recommended. Since symptoms alone could be misleading, we recommend repeat imaging to ensure resolution/improvement. Timing or modality of imaging should be based on expertise.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 33 Category: Clinical Vignette

Program: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Sumesh Khanal
Additional Authors: Joel T. Fishbain, MD

Salmonella Bacteremia: Why Look at the Aorta?

Salmonella bacteremia is an unusual complication of non-typhoidal salmonella (NTS) infection. Extra-intestinal (vascular) complications of NTS bacteremia may develop in patients over the age of 50. Herein, we present a case of NTS aortitis.

An 87 y.o. male with a past medical history of hypertension and diabetes presented with fever, chills with rigors associated with confusion and epigastric abdominal pain. He reported nausea but no diarrhea. He was afebrile with a normal WBC count on admission, but blood cultures turned positive for Gram-negative bacilli. Ceftriaxone was empirically initiated, and he felt better with resolution of the confusion. Salmonella enteritidis was later identified. A CT angiogram of his chest, abdomen and pelvis was performed. Extensive atherosclerotic disease of suprarenal abdominal aorta with aortic wall ulcerations and increased soft tissue attenuation in the surrounding retroperitoneal fat was reported. These findings confirmed acute aortitis in the presence of NTS bacteremia. Vascular surgery recommended a conservative approach due to his co-morbidities. Intravenous ceftriaxone was continued for 6 weeks and life-long suppressive oral antibiotic therapy was recommended. An abdominal duplex study was done on day 11 of the admission and did not reveal any evidence of dilatation or aneurysm formation.

NTS bacteremia in adults is a significant finding given the higher percentage of extra-intestinal complication rates (compared to children). Further evaluation is indicated in older adults who present with this condition. The presence or absence of diarrhea is irrelevant. Mortality rates of acute aortitis without surgical intervention remain very high.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 34 Category: Clinical Vignette

Program: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Katherine Salisbury
Additional Authors: Dr. Joel Fishbain, Dr. Basil Dudar

I Drank Well Water in Portugal and Look What it Did to My Heart

Introduction: Campylobacter jejuni infections most often present as an acute infectious diarrhea (enteric fever). Sequelae following infection are well described and include reactive arthritis and Guillain-Barre syndrome. Herein, we report a case of a patient who acquired C. jejuni infection complicated by acute myocarditis.

Case: A 40-year-old male patient presented to our facility with days of profuse watery stools without blood. He reported fevers, chills, rigors and drenching sweats. He developed crushing chest pain and was referred to our Emergency Room by Urgent Care. His history was remarkable for a recent trip to Portugal whereby he admitted to drinking well water. He was noted to be febrile with a temperature of 102.7°F. His WBC count and renal function were normal. His EKG showed J point elevation and troponins were elevated. A cardiac catheterization was normal except for an ejection fraction of 50% with apical hypokinesis. Stool cultures grew C. jejuni and he received 7 days of azithromycin with resolution of his gastrointestinal symptoms, fever and chest pain. He was discharged home and was doing well in follow up with no evidence of additional sequelae.

Conclusion: Traveler's associated diarrhea is a common problem when individuals violate the simplest of prevention practices. Enterotoxigenic E. coli are the most common pathogens but salmonella, shigella and campylobacter remain important agents. Post-infectious sequelae are well described, albeit uncommon entities related to infectious diarrhea. Myocarditis is a rare entity by itself and only rarely associated with infectious diarrhea from C. jejuni.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 35 Category: Clinical Vignette

Program: Central Michigan University – Saginaw
Program Director: Nicholas Haddad MD, FACP
Presenter: Sindhura Ananthaneni
Additional Authors: Batoul Harrisa, Navya sree vipparla,Rajeev Sudhakar,Kogulan Pandey;M.D

Rare Bacteremia Leading to Aggressive Mitral Valve Endocarditis

S. lugdunensis bacteremia was found to be associated with endocarditis in up to 50% of patients leading to the destruction of valves, resulting in a high mortality rate for native valve endocarditis is 64%, and as high as 89% for patients who do not undergo valve replacement.

70-year-old male with past medical history of bladder cancer getting yearly cystoscopic evaluation and last one was done a month ago presented with fever. Patient had a toothache and visited the dentist a week ago and had an extraction of his tooth. On presentation he was febrile and tachycardic,Blood PCR was positive for staphylococcus species and cultures grew staphylococcus lugdunensis persistently which was sensitive to oxacillin. Patient was initially started on IV vancomycin and was narrowed down to cefazolin IV. TTE revealed1.0cm (L) x 0.9cm (W), mobile vegetation on the atrial aspect of the anterior leaflet; the appearance is consistent with vegetation with severe mitral regurgitation (MR)(Figure1). He finished his 4 weeks of antibiotics course and repeat cultures were negative following treatment. He subsequently had elective open-heart mitral valve replacement using a 29mm Mosaic porcine tissue valve(bioprosthesis). On gross examination during surgery, mitral valve anterior leaflet and posterior leaflets were infected and perforation perforation within the posterior leaflet vegetations was identified. Blood cultures remained persistently negative and patient recovered well following the procedure.

Given the aggressive nature and its high mortality rate, it is essential to properly diagnose and quickly intervene with medication and surgery when indicated.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 36 Category: Clinical Vignette

Program: Central Michigan University – Saginaw
Program Director: Nicholas Haddad MD, FACP
Presenter: Steve Balian
Additional Authors: Mohamed A Mohamed, MD, Rimsha Siddique, MD Mohd S. Kanjwal, MD

Burn the Vape and You Burn Your Lungs

Introduction

E-Cigarette or Vaping induced lung injury (EVALI) is a rapidly emerging and growing phenomenon which has led to significant complications and even death. Here we present a case of acute respiratory distress syndrome (ARDS) from vaping.

Case Description

A 53-year old Caucasian female with a history of anxiety and hypertension presented to the ICU with acute hypoxic respiratory failure with significant dependence on Bilevel positive airway pressure (BiPAP) ventilation and moderate to severe ARDS. The onset of dyspnea was sudden and further assessment revealed a two-year history of vaping. Labs revealed mild leukocytosis with no signs of sepsis. CXR and CTA revealed bilateral ground glass opacities. Blood and sputum cultures as well as a typical workup were negative. High dose corticosteroids were initiated, and oxygenation improved dramatically, thus intubation was averted. Oral prednisone taper and strict counselling on vaping cessation was provided. A repeat CXR after three weeks showed complete resolution of the diffuse alveolar opacities.

Discussion

EVALI is a subtype of acute lung injury where the following criteria must be met: 1) Use of e-cigarette or related product 2) lung opacities on CXR/CTA 3) exclusion of other lung infections; all three were met in our case. To aid in diagnosis, bronchoscopy with bronchoalveolar lavage (BAL) fluid cytology may detect Vitamin-E Acetate, a culprit found in several studies, which was also a compound found in the e-cigarette the patient had used. When evaluating patients who are smokers, a high index of suspicion should be raised for EVALI.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 37 Category: Clinical Vignette

Program: Central Michigan University – Saginaw
Program Director: Nicholas Haddad MD, FACP
Presenter: Dushyant Dahiya
Additional Authors: Navya Sree Vipparla MD, Sreevastav Teja Kalangi MD, Juwairiah Mohammad B.S., Nicholas Haddad MD, FACP, FIDSA, CIC.

Deception at its Finest: A Case of Aseptic Skin Necrosis

Necrotic skin ulcer, usually pyogenic, sometimes inflammatory in nature, occurs due to cell death and loss of surface tissue. Extravasation injury, typically iatrogenic, is tissue damage caused by efflux of solutions from a blood vessel into surrounding tissue during intravenous infusions.

A 24-year-old non-verbal female with cerebral palsy, spastic quadriplegia and epilepsy, was brought to the hospital because of pain. She had progressive redness and swelling of left forearm for 5 days. Heart rate was 160/min, temperature 99.6F despite Tylenol use. A 4x3 cm swelling associated with warmth, redness and central necrosis was noted on the dorsum of her left forearm (Fig.1). CBC, BMP, procalcitonin, CRP and lactate were normal. Ultrasound venous doppler ruled out underlying thrombus. She was started on cefazolin empirically for concerns of infection. Blood, urine cultures showed no growth. Further inquiry revealed she had received potassium infusion from an IV access at the same site previously, suggesting extravasation of K+ causing necrosis. Antibiotics were discontinued, plastic surgery was consulted and conservative management with wound care was recommended. She was discharged, with notable improvement upon follow up.

Prompt diagnosis of extravasation injury should be considered when alternative diagnoses are excluded to promote antimicrobial stewardship and prevent antimicrobial overuse. In our case, K+ infusion caused cell death due to direct tissue injury. The dosage, volume and physiochemical properties of infiltrating agent determine the degree of damage which evolves over weeks and commonly seen on dorsum of forearm. Delayed treatment results in surgical debridement, skin grafting, or amputation.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 38 Category: Clinical Vignette

Program: Central Michigan University – Saginaw
Program Director: Nicholas Haddad MD, FACP
Presenter: Pruthvi Goparaju
Additional Authors: Swe,Khine Mon Jamal,Shakeel Kichloo,Asim

An Unusual Presentation of Hypercalcemia Causing Bradycardia

Hypercalcemia is very rarely associated with conduction system abnormalities and bradycardia and only a few cases have been reported so far. In this report, we present a rare case of bradycardia caused by hypercalcemia of malignancy.

A 64-year-old Caucasian female presented with symptoms of light-headedness and weakness with heart rate of 30-40bpm and the patient was admitted for symptomatic bradycardia. No aggressive interventions were considered as patient's blood pressures were stable. She was not on medications which can cause bradycardia, normal thyroid levels, no signs of acute MI, no structural heart disease or sleep apnea. The only other lab abnormality which caught attention was elevated calcium levels of 13.8. Aggressive fluid hydration and calcitonin 200IU was started for treatment of hypercalcemia. Over the next 24 hours calcium levels gradually dropped and normalized. Bradycardia corrected along with calcium levels and she reverted back to normal sinus rhythm. Regarding etiology of hypercalcemia, PTH and Vitamin D levels were low and calcitriol levels were elevated at 80.9(normal:20-45). Recent CT scan showed retroperitoneal lymphadenopathy and diagnosis of Hodgkin's lymphoma was made after lymph node biopsy and chemotherapy was started. Eventually, bisphosphonate therapy was started for recurrent hypercalcemia.

After ruling out common causes of bradycardia and normalization of heart rate with correction of calcium levels, bradycardia was attributed to hypercalcemia. The patient has a calcitriol secreting lymphoma, and although it's a rare presentation and the mechanism is not clearly understood, hypercalcemia of malignancy is associated with bradycardia. Possible hypothesis includes AV nodal calcification and dysfunction.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 39 Category: Clinical Vignette

Program: Central Michigan University – Saginaw
Program Director: Nicholas Haddad MD, FACP
Presenter: Abdur Jamil
Additional Authors: Shakeel Jamal,MD, Pavani Prathivada, MBBS, Vivek Variar, MD

The Sudden Aroma of an Extra-Adrenal Pheochromocytoma

Paraganglioma are rare neuroendocrine tumors arising extra-adrenal autonomic paraganglia consisting of small neuroendocrine cells (derived from neural crest) which are capable of secreting catecholamines. They are very closely related to pheochromocytomas.

An 81-year-old African-American Female with a past medical history of insulin dependent diabetes mellitus type II, second-degree heart block with pacemaker, presented with hypertensive emergency and NSTEMI. She complained of persistent vomiting and lightheadedness. CT (Computed Tomography) Abdomen revealed 12.7x8.3 cm left solid retroperitoneal mass. Perigastric EUS (Endoscopic Ultrasound) guided FNA (Fine needle aspiration) was performed prior to hormonal assessment and surgical removal. On direct tumor manipulation, systolic blood pressure was elevated in the 300's. The surgery was pre-maturely aborted and blood pressure was stabilized with intravenous infusion of nicardipine. Biopsy with cellular morphology and immunohistochemistry revealed pheochromocytoma. The abnormally elevated plasma and urine metanephrines/catecholamines were consistent with the pathological diagnosis. Extremely tight systolic blood pressure control of less than 120 was achieved with prazosin, as phenoxybenzamine has poor absorbability via naso-gastric (NG) tube. Given that she is a high-risk surgical candidate, pre-operative nuclear medicine imaging tests are planned for investigation of metastatic disease.

The early detection of secondary causes of hypertension in elderly patients is absolutely critical as they present with unusual symptomatology and unrecognized complications. Radiological findings of retroperitoneal masses should raise a high index of suspicion for pheochromocytoma so rapid treatment therapy is established.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 40 Category: Clinical Vignette

Program: Central Michigan University – Saginaw
Program Director: Nicholas Haddad MD, FACP
Presenter: Sreevastav teja Kalangi
Additional Authors: Navya Sree Vipparla MD, Sindhura Ananthaneni MD, Dushyant Singh Dahiya MD, Sudhakar Rajeev MD

Marijuana For the Heart: Friend or Foe

Marijuana is one of the most used drugs in North America. Despite overwhelming perception of safety, increasing number of cardiovascular events have been reported. A 30-year-old female with no medical history presented to emergency department with chest pressure and palpitations. Examination showed irregular heart rate.

Electrocardiogram showed atrial fibrillation(Afib) with rapid ventricular response(RVR), 160 beats per minute. She doesn't consume caffeine. CBC, BMP, TSH, troponins were normal. Urine drug screen positive for Marijuana. IV Diazepam and Metoprolol failed to control heart rate. She sustained ventricular fibrillation(Vfib), revived after defibrillation. IV Amiodarone converted rhythm to sinus bradycardia. 2D Echocardiogram, CT chest, Cardiac catheterization were normal. She was discharged with event monitor and sotalol.

The epidemic of marijuana raises immediate concerns. Beneficial effects include attenuation of cardiovascular risk. On the other hand, it predominantly causes acute vasodilatation, but triggers vasoconstriction in coronary, cerebral and peripheral arteries. The risk of acute myocardial infarction increases nearly fivefold within an hour of exposure especially in young men with no coronary artery disease. Effects are mediated through cannabinoid receptors type 1(CBR1) by decreasing myocardial contractility, increased oxidative stress, platelet activation, elevation of carboxyhemoglobin levels leading to decrease in oxygen supply with increased myocardial demand, vascular tone and thrombosis. Due to hyperadrenergic state following exposure, several rhythm abnormalities including Afib or Vfib have been reported.

Public awareness regarding potential complications is imperative. Since long-term effects are not well studied, legalization and decriminalization may worsen the epidemic. It is important to control usage till stronger data is available.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 41 Category: Clinical Vignette

Program: Central Michigan University – Saginaw
Program Director: Nicholas Haddad, MD, FACP
Presenter: Shweta Kambali
Additional Authors: Mohamed A Mohamed, MD; Shrinivas Kambali, MD

Reconsider Your Pain Killer; A Case of Aspirin Toxicity

Salicylate toxicity is a medical emergency that requires prompt diagnosis and treatment to prevent lethal complications. The number of salicylate poisoning has decreased in recent years due to the advent of other safer analgesics; it remains an important clinical problem as in recent years there have been nearly 30,000 cases yearly in the US with nearly 53 resulting deaths.

Case

We present a case of a 73-year-old female with past medical history significant for multiple back surgeries and chronic back pain admitted to the hospital with altered mental status after complaining of tinnitus, nausea, vomiting and lightheadedness. CT scan was negative and was found to have aspirin level of 69.7 (therapeutic <20). She also presented with hypokalemia and metabolic acidosis with respiratory alkalosis. Patient was started on Bicarbonate drip, however due to worsening mental status and epileptiform discharges found on EEG patient was taken for dialysis for Aspirin apheresis. Patient was placed temporarily on Keppra, and soon after dialysis repeat EEG had normalized and mental status improved shortly after.

Discussion

As there is no specific antidote for salicylates, treatment of poisoning focuses mainly on improving salicylate removal from body by alkalization of serum, urine and hemodialysis. It is believed the neurological symptoms from Salicylate poisoning is from direct toxicity as well as cerebral edema and neuroglycopenia. Altered mental status in the setting of salicylate poisoning is an absolute indication for hemodialysis to prevent herniation and life-threatening seizures.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 42 Category: Clinical Vignette

Program: Central Michigan University – Saginaw
Program Director: Nicholas Haddad, MD, FACP
Presenter: Muhammad Zatmar Khan
Additional Authors: Dushyant Dahiya, Asim Kichloo, Nicholas Haddad, Menelito Lilagan

Internalizing Biliary Drains: A Judicious Approach to Minimize Fluid and Electrolyte Losses

Percutaneous transhepatic biliary drainage (PTBD) is a widely used palliative procedure to manage malignant biliary obstructions. Other indications include cholangitis, pruritis, hyperbilirubinemia and establishing access for future interventions. It can be either external or internal; the latter allowing for enterohepatic circulation of bile. We present a 70 year old female with chronic kidney disease diagnosed with hepatocellular carcinoma involving the porta hepatis with placement of an external PTBD catheter. She was confused and fatigued on presentation with a 100/60 blood pressure, 98 bpm heart rate and 98.2F temperature. Laboratory investigations revealed a sodium of 127 mEq/L, potassium 6.1 mEq/L, creatinine 3.9 mEq/L (baseline 1.9), bilirubin 2.5 mg/dl, ALT 57, AST 67 and ALKP of 181 U/L. She was started on a liter of normal saline fluid bolus and maintenance at 125 cc/hr. Her drain output was greater than 1 L/day. After correction of her hyperkalemia and interventional radiology consultation, the external drainage catheter was exchanged to an external-internal drainage catheter. Cholangiogram confirmed successful placement of the catheter. This led to significant improvement of biliary output and renal parameters. She was discharged and advised to follow up with oncology. The volume of externally drained bile averages 700ml per day with a range from 200-1600ml. However, high biliary outputs are rarely observed. Our case illustrates the importance of early detection of high output from an external PTBD catheter, aggressive fluid replacement and conversion of the PTBD system to minimize complications due to fluid loss.

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Resident/Fellow Poster # 43 Category: Clinical Vignette

Program: Central Michigan University – Saginaw
Program Director: Nicholas Haddad, MD, FACP
Presenter: Navya Sree Vipparla
Additional Authors: Sindhura Ananthaneni, MD1, Khine Mon Swe MD1, Goral Panchal MD 1,2 1Internal Medicine Resident, CMU Health 2Endocrinologist

A Stitch in Time Saves Nine: Early Diagnosis Crucial to Prevent Adverse Outcomes of Secondary Hypertension

INTRODUCTION

Secondary hypertension (HTN) accounts for 5-10% of uncontrolled blood pressure (BP). Primary aldosteronism (PA) the most common endocrine cause, responsible for 1%-10% uncomplicated cases. Early diagnosis is imperative to prevent irreversible target organ damage.

CASE PRESENTATION

70-year old female with a history of HTN, hyperlipidemia, hypokalemia presented to our clinic for uncontrolled BP. Pertinent vitals: BP 158/92 mm Hg, heart rate 84/min. She was on amlodipine, carvedilol, potassium supplements, and losartan. Workup showed elevated Aldosterone/Direct Renin Ratio (ARR) of 10 (Range: 0.1-3.7) suggesting primary aldosteronism. CT abdomen with contrast showed a 1.8 cm left adrenal mass. Adrenal venous sampling (AVS) 5 min post-Adrenocorticotropic hormone (ACTH) stimulation showed ARR of 2.14, 1.24 on the left and right side respectively, a ratio of more than 4 is required for lateralization. The patient was informed that adrenalectomy may not control her HTN given the absence of definitive results on AVS. She elected medical management with spironolactone.

DISCUSSION

All patients with early-onset (< 40-50 years) or resistant HTN should be screened for secondary causes. PA, Cushing's Syndrome, and Pheochromocytoma are the most common endocrine causes. The diagnosis could be challenging, especially when HTN is an isolated manifestation. Severity, resistance, disproportionate target organ lesions, or adrenal incidentaloma with HTN or hypokalemia raises suspicion for PA. Diagnosis is established based on ARR. Management includes surgical resection of the tumor or medical with mineralocorticoid antagonists.

Clinicians should be cautious of secondary HTN, those suspected to have endocrine causes should be referred to specialists for optimal management.

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Resident/Fellow Poster # 44 Category: Research

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Ayman Abulawi
Additional Authors: Alema Khandaker, MD; Rana Ismail, PhD, MSc; Sandra Jones, MD; Jared Tucker, MD.

Is There a Difference in Outcome in Treating Patients with Vitamin D Deficiency with High Weekly Dose with D2 Versus Low Daily D?

Introduction: Vitamin D deficiency, 25-hydroxyvitamin D level [25(OH)D] below 20ng/µl, can have detrimental effects on health. Replacement therapy to increase serum 25(OH)D above 30ng/µl lacks new guidelines; this review highlights the most effective vitamin D replenishing regimen.

Methods: We searched PubMed/Cochrane library, and identified seven prospective, randomized and observational studies that discussed weekly and daily vitamin D supplementation regimens.

Results: A cohort study that compared three vitamin D3 regimens in obese and non-obese Caucasian female patients, found that weekly dosing (oral 5000IU) achieved normal 25(OH)D level faster among obese as did daily dosing (6000IU) among non-obese. At six-month, daily oral group had higher 25(OH)D levels than weekly oral and IM groups ($P<0.001$). Another study compared the safety and efficacy of high dose 50,000IU D2 daily for ten days and low dose 3000IU D3 daily for one month followed by 1000IU D3 daily for two months and found no statistical difference in achieving normalcy. Another study compared four regimens/groups: D3 2,000IU daily, D3 3000IU daily, D2 50000IU weekly, and D2 50,000IU bi-weekly. All four schedules effectively achieved normal 25(OH)D level, but D2 50,000IU bi-weekly provided fastest attainment and highest mean levels.

Conclusion: All regimens of vitamin D (D2 or D3) dosing achieved and maintained target 25(OH)D levels after 3 months of use. Yet, starting with high weekly or bi-weekly dose of 50,000IU D2 for deficient patients is faster at replenishing and restoring optimal serum 25(OH)D level in the first month, followed by oral daily maintenance dose of 2000 or 3000IU D3.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 45 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Faiza Ahmed
Additional Authors: Athar Baig, MBBS; Rohan Naik, MD; Zuhair Aejaz, MD; Rana Ismail, PhD, MSc.

A Rare Case of Heyde's Syndrome: GI Bleeding from Severe Aortic Stenosis

Introduction:
Heyde's syndrome is a rare condition of gastrointestinal bleeding seen in approximately 3% of patients with aortic stenosis, due to acquired von Willebrand factor (vWF) dysfunction. Severe aortic stenosis causes turbulent flow that uncoils and activates vWF, leading to its consumption and moderate-severe bleeding. We present a rare case of Heyde's syndrome with type 2A von Willebrand disease.

Case description:
A 57-year-old male presented to the hospital with repeated episodes of lower gastrointestinal (GI) bleeding. On admission, blood pressure was 87/60 mmHg, heart rate 130 beats/min, and hemoglobin 8.3 gm/dl, which dropped to 6.1 gm/dl overnight. A tagged red blood cell scan confirmed a GI bleed without localization. Esophagoduodenoscopy was negative for bleeding, which was followed by a colonoscopy demonstrating extensive clots in the colon but still no source due to poor prep. Coagulation studies showed aPTT/PT/INR to be normal at 24.5/10.3/0.99. vWF activity was 43, and the vWF antigen was 101, with an activity-to-antigen ratio of 0.42. Echocardiography showed severe aortic stenosis with an aortic valve area of 0.6cm2.

Discussion:
Heyde's syndrome diagnosis is dependent on GI bleeding in the setting of aortic stenosis with appropriate vWF activity, antigen, and activity-antigen ratio. Although vWF activity was low-normal in this patient, the activity-antigen ratio was well below the 0.5 – 0.7 cutoff for type 2A von Willebrand disease. It is a crucial diagnosis because treatment of aortic stenosis completely reverses the condition; a high index of suspicion with appropriate early management prevents life-threatening bleeding.

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Resident/Fellow Poster # 46 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Farah Al Haj
Additional Authors: Sulaiman Alhassan, MD; Marc Feldman, MD; Rana Ismail, PhD, MSc.

An Uncommon Case of Non-Healing Abdominal Ulcer Due to Calciphylaxis

Introduction: Calciphylaxis, calcific uremic arteriolopathy, is a rare and severe disorder characterized histologically by calcification of arterioles and capillaries in the dermis and the subcutaneous adipose tissues and is manifested by skin ischemia and necrosis. It is a lethal disease due to clotting, systemic infection and organ failure, and has a 50% estimated survival rate at six months. Calciphylaxis is mostly present in patients with End-Stage Renal Disease (ESRD) on dialysis.

Case presentation: A 38-year-old female patient with ESRD, postpartum cardiomyopathy, diabetes mellitus, and hypertension, presented with worsening of her chronic conditions. On physical exam, the patient had a chronic large non-healing left-sided abdominal wound that failed to respond to antibiotics; etiology remained unclear. A biopsy showed predominantly non-viable fibro-adipose tissue with abscess and abundant calcium depositions in the vascular walls, which is consistent with calciphylaxis. Surgical intervention was deemed unnecessary, and the patient received wound treatment with irrigation and local dressings.

Discussion: As Calciphylaxis is most commonly seen in patients with ESRD and on dialysis, the related pathogenesis remains theoretically challenging and poorly understood. Hyperparathyroidism and active vitamin-D may have some implications in this disease. Moreover, the up-regulation of factors involved in osteogenesis and bone remolding and deficiencies in inhibitors of vascular calcification present another possible mechanism. Given there is no definitive treatment, wound care and treatment of calcium, phosphate and parathyroid hormone abnormalities are generally employed.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 47 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Hira Aslam
Additional Authors: Anam Kamal, MD; Ahmed Jamal Chaudhary, MD; Sana Iqbal, MD; Paramveer Singh, MD; Rana Ismail, PhD, MSc

Solitary Cystic Mediastinal Lymphangioma: A Rare Incidental Case in an Adult Female

INTRODUCTION

Lymphangiomas are rare, congenital malformations arising from lymphatic hyperplasia. They commonly occur in children with more than 90% of cases observed in patients younger than 2 years. Cystic lymphangioma usually appears in the neck or the axillary region and only rarely does it extend into the mediastinum, accounting for 0.7-4% of all mediastinal tumors.

CASE REPORT

A 42-year-old woman presented with dyspnea and productive cough. Tachypnea, tachycardia, and wheezing were noted on physical examination. CXR and CT-thorax showed right lower medial lung opacity, and a cystic mediastinal mass, encroaching superior vena cava and approaching trachea and mainstem bronchus respectively. CT-guided biopsy revealed a benign cystic lesion lined by paucicellular cells with rare histiocytes and proteinaceous debris. A presumptive diagnosis of bronchogenic cyst was made and an anterior thoracotomy with tumor resection was planned to relieve compression symptoms. Final pathology report confirmed the diagnosis of mediastinal lymphangioma. The postoperative hospital course was satisfactory after which the patient was discharged home in stable condition.

DISCUSSION

Mediastinal lymphangiomas are extremely rare in adults, majority of which are silent tumors. Even if found incidentally as a cause of mediastinal widening on CXR, it is important to consider lymphangioma as a differential diagnosis followed by further imaging and biopsy as necessary. Failure to make early diagnosis can jeopardize clinical course as they can grow to compress nearby anatomic structures causing symptoms of respiratory difficulty, hoarseness and superior vena cava syndrome. Complete surgical resection can also be challenging once the tumor has infiltrated adjacent structures.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 48 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Anusha Bapatla
Additional Authors: Rohan Naik, MD; Abu Fazal Shaik Mohammed, MD; Rana Ismail, PhD, MSc.

Gastric Bypass Surgery: Is the Reward Worth the Risk?

Introduction: Gastric bypass is an essential intervention for obese patients, especially those with obesity-related comorbidities. Roux-en-Y gastric bypass helps achieve weight loss. The benefit of weight loss is accompanied by several nutritional deficiencies and alterations in neuro-humoral pathways.

Case Description: A 49-year-old woman presented to ED via EMS due to altered mentation. Upon arrival, capillary blood glucose was 49gm/dl. Patient was intubated for airway protection. Medical history included diabetes, and morbid obesity(BMI=44 kg/m2), for which she underwent Roux-en-Y gastric bypass surgery. Vital signs and physical examination were unremarkable. Laboratory studies showed severe hypomagnesemia, hypocalcemia, mild leukocytosis, and normocytic anemia. Urine drug screen was negative. CT-Head was normal. Continuous EEG monitoring showed no seizure-like activity. CSF analysis was unremarkable. MRI-brain revealed gyral T2 signal abnormalities in the bilateral insular cortex and cerebral gyri, which could be attributed to prolonged hypoglycemia. Over the next ten days, patient experienced a gradual progressive improvement in mental status.

Discussion: Bariatric surgery is associated with dangerous complications, and therefore should be strictly reserved for those with a clear indication. Altered mentation in a patient with previous gastric bypass surgery should prompt physicians to consider prolonged hypoglycemia with neurologic sequelae as a potential cause. Postprandial hypoglycemia is a significant complication of gastric bypass surgery. Possible mechanisms include Beta-cell hypertrophy (Nesidioblastosis). Patients with hypoglycemia post-gastric bypass should adhere to low carbohydrate diets, and occasionally require distal pancreatectomy surgery to reduce islet cell mass. Bariatric surgery-associated hypoglycemia and dumping syndrome present similarly and must be distinguished from each other.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 49 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Brinda Basida
Additional Authors: Rohan Naik, MD; Chadi Almhana, MD; Rana Ismail, PhD, MSc; Hassan Makki, MD; Hicham Krayem, MD.

Weathering the Storm: Thyroid Storm Precipitated by Radioiodine Contrast in Metastatic Thyroid Carcinoma

Introduction: Thyroid storm (TS) is a rare, life-threatening condition characterized by serious clinical manifestations of thyrotoxicosis. Precipitating factors include surgery, trauma, infection, acute iodine load, and parturition.

Case Presentation: A 61-year-old woman with medical history of COPD, pulmonary embolism on anticoagulation, thyroid carcinoma status-post thyroidectomy with recent bone metastasis, presented with fever, vomiting, and abdominal pain. Physical exam revealed tachycardia, hypoxia, disorientation with abdominal tenderness, and left infrascapular crackles. Laboratory evaluation was unremarkable. Blood cultures grew ESBL-producing E. coli. Chest radiography revealed left lower lobe pneumonia. CT-abdomen/with iodinated contrast showed stercoral colitis. Therapy with ertapenem was initiated. On day 5, patient became acutely agitated and developed dyspnea, chest pain, tachypnea, tachycardia, and mild fever. EKG displayed supraventricular tachycardia (SVT). Troponin was elevated at 0.57. IV heparin drip was started. SVT was refractory to electrical and chemical cardioversion, including amiodarone. Lactate increased to 6.1. CT-Thorax/with contrast, ruled-out pulmonary embolism but revealed progressing metastasis. Laboratory evaluation indicated severe hyperthyroidism with Burch-Wartofsky point scale of 75. Patient was diagnosed with refractory SVTs secondary to TS. Amiodarone and digoxin were discontinued, and hydrocortisone, propylthiouracil, metoprolol, and cholestyramine were started. Free T4, lactic acid reduced, and HR normalized.

Discussion: Despite thyroidectomy, administering iodinated contrast to this patient with ectopic overactive metastatic thyroid cancer precipitated TS, likely via Jod-Basedow phenomenon. High-risk patients should avoid iodinated contrast unless strongly indicated. Hyperthyroidism develops over 1-12weeks with overt TS being rare. Therapeutic approach for TS calls for acute management of underlying factors to prevent complications (tachyarrhythmias) and reduce mortality.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 50 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Avijit Das
Additional Authors: Avijit Das, MD; Rohan Naik, MD; Malitha Hettiarachchi, MD; Rana Ismail, PhD, MSc

Immune Complex (IC) Mediated Post-Infectious Glomerulonephritis (PIGN) Due to Infective Endocarditis (IE)

Introduction:
PIGN is common following streptococcal infection in children; however, the incidence of PIGN associated with staphylococcal infection in the immunocompromised, elderly, is rising.

Case Description:
A 51-year-old male with Heroin dependence and chronic active hepatitis-C was diagnosed with IE involving aortic tricuspid valves after presenting with chest pain, dyspnea, and fever for 2-3 days. Methicillin-sensitive Staphylococcus aureus bacteremia led to multiple septic arthritis and visceral abscesses due to septic emboli. He received IV Nafcillin and Rifampin. On day 7, peripheral edema and new-onset hypertension developed. Urinalysis(UA) was normal on admission, later showed red, cloudy, 3+blood, 2+protein, 0-2granular casts, and trace eosinophils. Urine culture showed no growth. C3 decreased to 54, C4 was 26, and CH50 was<11. Creatinine rose from 0.70 to 4.98. Possible nephrotoxins were stopped. Diagnosis of PIGN was made given the nephritic picture, the timing of Acute kidney injury(AKI), hypocomplementemia, and improvement of renal function without discontinuation of Nafcillin. Patient improved and was transferred to longterm care with 6-weeks IV antibiotics.

Discussion:
The formation of circulating ICs against bacterial antigens and renal deposition is the primary pathogenesis. AKI(79%), hematuria(97%) are common. Hypocomplementemia(56%) affecting C3 more than C4, and ANCA(28%) may be detected. Immediate use of antibiotics +/-immunosuppressive therapy is the mainstay of treatment. The majority recover renal function, with some progressing to end-stage-renal-disease, or even death(21%). This case highlights the importance of diagnosis by clinical features, UA, and hypocomplementemia, along with appropriate supportive care without the need for a kidney biopsy in septic and critically ill patients.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 51 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Maryam Haider
Additional Authors: Ashley Kaatz, DO; Paramveer Singh, MD; Rana Ismail, PhD, MSc; Wasif Hafeez, MD

Herpes Simplex Virus Esophagitis in the Setting of Acute Use of Corticosteroids

Introduction:
Herpes simplex (HSV) esophagitis is usually identified in patients with significant immunosuppressive conditions such as AIDS. Short course of immunosuppressive therapy is an uncommon risk factor for this condition. We present a case of acute gastro-intestinal bleeding (GIB) secondary to HSV type 1-induced esophageal ulcers.

Case Description:
A 63-year-old female developed acute hypoxic hypercapnic respiratory failure. Past medical history was significant for COPD for which patient was taking short acting bronchodilator inhalers. Patient was intubated and started on mechanical ventilation. Intravenous solumedrol 40mg Q6 was started. Hospital course was complicated by sepsis of unknown source. Empiric broad-spectrum antibiotic therapy was started. On the eleventh hospital day, patient experienced multiple episodes of coffee-ground emesis. There was abdominal tenderness on physical exam. Significant labs were lipase 1911 U/L and lymphopenia (ALC=300/mm3). Endoscopy revealed severe erosive esophagitis and multiple punched-out ulcerations of the esophagus. Empiric treatment with valacyclovir 500mg OD was started. Patient required PEG tube insertion for dysphagia. Complete resolution of esophagitis was noted then. Immunohistochemical staining for HSV was strongly positive in the cells with inclusions.

Discussion:
Short course of intravenous corticosteroids is an uncommon cause of HSV-1 esophagitis. Corticosteroid-induced lymphopenia impedes underlying cellular immunity, which might explain the reactivation of latent herpes and esophageal ulcer formation. Given the rarity of the disease, evidence of treatment is available from case reports only. We found complete resolution of esophageal ulcers after patient received valacyclovir therapy for ten days.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 52 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Ali Hajj Ahmad
Additional Authors: Roshini Moses, MD: Aparna Lakshminarasimhan, MD; Sulaiman Alhassan, MD.

Severe Barotrauma Secondary to Traumatic Intubation Resulting in Compartment Syndrome

Abstract Title Severe Barotrauma Secondary to Traumatic Intubation Resulting in Compartment Syndrome

Introduction:
Pulmonary barotrauma caused by mechanical ventilation is a serious lung injury resulting from pressure change between the alveolar and the interstitial pressure. It can result in pneumothorax, and or subcutaneous emphysema.

Case description:
An 88-year-old female presented to ED with a chief complaint of shortness of breath and wheezing, and a history of COPD. She soon developed hypoxemic hypercapnic respiratory failure secondary to COPD exacerbation. She was thus intubated & mechanically ventilated. She was transferred to the intensive care unit for further care. She improved clinically & was extubated two hours later. She subsequently developed dyspnea, facial swelling, and was noted to have stridor on examination. Chest x-ray revealed subcutaneous emphysema. Computed Tomography of the thorax and the neck showed a questionable tracheal tear at the level of the right thyroid gland. Otolaryngology was consulted, and a tentative plan for a laryngoscopy or a bronchoscopy with a possible tracheostomy was made. However, the patient's clinical condition worsened. She developed kidney failure and compartment syndrome with an intraabdominal pressure of 27cm H2O. The patient’s family opted for comfort measures. She was transferred to Hospice Service, where she was terminally weaned. She expired shortly after.

Discussion:
Close surveillance of patients after extubation is an important aspect to prevent barotrauma in the lungs. Recognition of signs and symptoms of pulmonary barotrauma is of utmost importance to prevent complications as seen in our patient.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 53 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Kinza Ijaz
Additional Authors: Rohan Naik MD, Lackey Lawrence MD

The Highs and Lows of Cannabis – Cannabis Induced Symptomatic Sinus Bradycardia

While a substantial amount of neuropsychiatric complications of Tetrahydrocannabinol, THC have been observed, only a few cardiac effects have been recorded. This case report presents a patient with chronic cannabis use and persistent Sinus Bradycardia – an adverse effect caused by THC.

A 26 year old male with a medical history of cannabinoid-induced hyperemesis syndrome presented to the emergency department (ED) after being found unconscious in the cold shower. The patient returned to his baseline mentation in the ED, however he mentioned experiencing similar syncopal episodes almost everyday in different settings. The patient was hypothermic at 34.6 degrees Celsius and bradycardic at 46 bpm. Physical exam revealed a lethargic gentleman in no distress, with bradycardia. Other than urine toxicology which was positive for Cannabinoids, all lab work was within normal limits, including Troponin and TSH. A12-Lead EKG revealed sinus bradycardia of 44 bpm. Transthoracic Echocardiogram and an Exercise Stress Test were both normal. Telemetry only showed sinus bradycardia. The patient reported using marijuana “multiple times, everyday”, and denied an athletic lifestyle.

The dose-dependent cardiovascular effects noted with Cannabis are mediated via CB1 receptors in the central, peripheral, and autonomic nervous system. Acutely, it causes dose-dependent sympathetic effects like Tachycardia. As tolerance develops to chronic THC exposure, decrease in sympathetic and increase in parasympathetic activity is seen, causing Bradycardia and diminished circulatory response to valsalva maneuvers. These physiologic changes result in dizziness, or even syncope. Hence, patients with similar chief complaints must be asked regarding Cannabis use, and physicians should provide adequate counseling.

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Resident/Fellow Poster # 54 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Anam Kamal
Additional Authors: Marc Feldman, MD, FACP

Thrombotic Microangiopathy in Malignant Hypertension and TTP: Two Different Entities with a Deceivingly Similar Presentation

INTRODUCTION

Malignant hypertension can cause microangiopathic hemolytic anemia (MAHA). MAHA is the term used for non-immune hemolysis that produces schistocytes on peripheral smear, similar to thrombocytopenic purpura (TTP). Because the smear and clinical presentation mimic TTP, clinicians may experience a dilemma of whether or not to initiate urgent plasma exchange (PEX).

CASE PRESENTATION

A 31-year-old female presented with dyspnea and chest pain. Tachycardia, tachypnea and severe hypertension were noted on physical exam. Labs were significant for anemia, thrombocytopenia, increased LDH, low haptoglobin and acute kidney failure. Peripheral smear showed schistocytes. Hematology was consulted for a suspicion of TTP but because her PLASMIC score was 4 and she had a systemic disorder (severe hypertension), a decision was made to hold off PEX. ADAMTS13 assay came 2-3 days later and was 50. She improved with blood pressure control, transfusion, hemodialysis and was discharged home in a stable condition.

DISCUSSION

After confirmation of MAHA and thrombocytopenia on peripheral smear, systemic disorders must be ruled out first as an etiology. But because "pentad" of MAHA: thrombocytopenia, fever, acute renal failure, and severe neurologic findings is rare in TTP, there may be an overlap in clinical features. Use of PLASMIC score can help in determining the probability of ADAMTS13 activity <10% (hence the probability of the diagnosis of TTP) in a patient with MAHA and thrombocytopenia. It is imperative to distinguish the two and initiate care accordingly, as TTP is a hematological emergency requiring urgent PEX whereas MAHA requires treatment of underlying cause.

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Resident/Fellow Poster # 55 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Alema Khandaker
Additional Authors: Malitha Hettiarachchi, MD; Paramveer Singh, MD; Rana Ismail, PhD, MSc.

A Rare Presentation of Neurosarcoidosis Exhibiting Panhypopituitarism

Introduction:
Sarcoidosis is a systemic granulomatous disease that can affect any organ system in the body, including the brain. Neurosarcoidosis is a rare presentation and accounts for only 5 % of sarcoidosis cases. Even rarer is Neurosarcoidosis with hypothalamic-pituitary system involvement. Contrast-Enhanced MRI is the initial diagnostic test of choice with a definitive diagnosis requiring the presence of noncaseating granulomas on tissue biopsy from the central nervous system.

Case Description:
A 49-year-old female presented with generalized weakness, polyuria, and signs of hypovolemia. Her PMH indicated active treatment for panhypopituitarism, including secondary hypothyroidism, adrenal insufficiency, and diabetes insipidus for more than a year. She was on hormone replacement therapy and had repeated admissions following missing doses of medications. The patient did a CT-thorax two years ago, which showed multiple pulmonary nodules suggestive of sarcoidosis. Brain MRI showed borderline thickened pituitary infundibulum with faint nodular enhancement superiorly, which likely represented Neurosarcoidosis- given the patient's history of sarcoidosis. The patient was discharged on hormone replacement therapy and was advised to follow-up for tissue biopsy.

Discussion:
Neurosarcoidosis is challenging diagnostically and treatment-wise. A study on 54 Neurosarcoidosis cases reported that 67% of patients had tissue biopsy showing noncaseating granuloma. Most patients were treated initially with high doses of steroids, followed by maintenance immunosuppressant. Studies that measure the treatment outcome of Neurosarcoidosis are limited. One longitudinal study that followed-up 48 Neurosarcoidosis cases who were aggressively treated with steroids and other immune-suppressants showed favorable outcomes that warrant further research on the diagnosis and treatment of Neurosarcoidosis.

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Resident/Fellow Poster # 56 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Vinod Pilli
Additional Authors: Paramveer Singh, MD; Joel Appel, DO; Rana Ismail, PhD, MSc.

Your Eyes See What Your Mind Knows! Leser-Trélat Sign in a Metastatic Squamous Cell Carcinoma of the Lung!

Introduction:
Leser–Trélat Sign (LTS) has been described as a paraneoplastic syndrome characterized by sudden onset of multiple seborrheic keratoses. LTS is associated with gastrointestinal malignancies, transitional cell carcinoma of the bladder, and adenocarcinoma of the lung. We report LTS in a patient diagnosed with Squamous cell carcinoma of the lung (SCCL). Only one case was reported in 1977, showing the rare association of LTS with SCCL.

Case Description:
A 70-year old female presented with intermittent difficulty in breathing associated with acute on chronic posterior chest wall right-side low back pain. She also complained of unintentional 15-pound weight loss over six months. On review of systems, she complained of generalized itching and generalized “skin rash.” On physical examination, multiple pink to dark brown colored scaly stuck-on skin lesions were noted across the anterior abdomen wall. Also, bone over vertebrae and the thoracic wall was tender to palpation. Further imaging revealed multiple osteolytic and osteoblastic bony lesions of 11th rib, T11, and L4 vertebrae. Histopathology of left 11th rib biopsy was consistent with metastatic squamous cell carcinoma of the lung primary. Patient received symptomatic palliative care and radiation therapy with symptom resolution.

Discussion:
Although uncommon, LTS can be associated with SCCL. It is a paraneoplastic cutaneous manifestation which provides a clue to underlying malignancy in acute onset. Few nonmalignant conditions like insulin resistance can manifest as eruptive seborrheic keratosis, which mimics this sign. A high level of suspicion and scrutiny in examination from clinicians will lead to a successful diagnosis.

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Resident/Fellow Poster # 57 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Ali Sbihi
Additional Authors: Paramveer Singh, MD; Rana Ismail, PhD, MSc; Malitha Hettiarachchi, MD; Joel Appel, DO

An HIV-Associated Plasmablastic Lymphoma with Spontaneous Tumor Lysis Syndrome

Background:
Plasmablastic lymphoma (PBL) is a rare and aggressive B cell Non-Hodgkin Lymphoma (NHL) associated with immunocompromised states such as HIV. We present a case of PBL in an HIV patient presenting as spontaneous tumor lysis syndrome and discuss the clinical challenges hence encountered.

Case Presentation:
A 49-year-old African American man with HIV on Anti-Retroviral therapy was admitted with acute epigastric pain, nausea, and vomiting. On physical examination, he had epigastric tenderness. CT abdomen with contrast revealed 7.0*5.0*5.0 cm soft tissue mass in the lesser sac; invading the splenic artery. Histopathology findings showed features consistent with PBL (diffuse monomorphic lymphoid cells of plasmablastic morphology positive for CD38, CD138, MUM1 immunostains, and negative for CD20 and CD79a). In situ hybridization for EBV viral RNA (EBER) was negative. Five days after discharge, the patient was re-admitted with profound hypotension (78/51mmHg) and creatinine of 4.11 mg/dl. Further workup was consistent with tumor lysis syndrome (TLS) (Uric Acid= 14.1 mg/dl, Phosphorous= 11.6 mg/dl, Potassium=6.2 mMol/L). Patient had 3/4 laboratory and grade II clinical Cairo-Bishop criteria. He received IV fluid resuscitation, high dose corticosteroids, rasburicase, and other supportive measures. Despite aggressive treatment, he expired one week after presentation and two weeks after PBL diagnosis was made.

Discussion:
First described in 1997, PBL is a sporadic and aggressive HIV-associated lymphoma. PBL poses a diagnostic challenge; as it classically lacks almost all B cell markers. Spontaneous TLS can be the first manifestation of PBL. Clinicians should screen for the laboratory evidence of TLS when PBL is suspected.

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Resident/Fellow Poster # 58 Category: Clinical Vignette

Program: DMC Sinai Grace
Program Director: Mohamed Siddique, MD, FACP
Presenter: Josephine Waindim
Additional Authors: Param Singh, MD; Ahmed Jamal Chaudhary, MD, FACP; Sana Iqbal, MD; Rana Ismail, PhD, MSc.

Pressing Gas with Brakes! Challenges in the Treatment of Neuroleptic Malignant Syndrome

Introduction:
Neuroleptic malignant syndrome (NMS) is a rare, fatal condition that is notoriously associated with antipsychotic polypharmacy therapy. It is characterized by fever and destabilized autonomic nervous system as manifested by delirium and muscle stiffness. There is a decline in NMS mortality since the introduction of dantrolene and bromocriptine. Given its low incidence, guidelines for optimal medical treatment are missing. We discuss a case of NMS and address the challenges incurred in management in the absence of adequate literature.

Case Description:
A 59-year-old female brought from nursing home to ED due to altered mental status and fever(40.1°C). She was profusely sweating, with heart rate 108, rigidity, and tremors. Lab work showed leukocytosis (14.3) and elevated creatine phosphokinase (2673). Further examination revealed she was on a high dose of olanzapine(10mg) and haloperidol(1mg BID) for schizoaffective disorder. Besides supportive treatment, she was started on dantrolene(60mg BID) and bromocriptine(10mg TID). Symptoms progressively improved, and bromocriptine and dantrolene were discontinued six days later, resulting in recurrence of rigidity. Dantrolene was reintroduced and increased to 60mg TID. Patient showed significant improvement in symptoms, and a slow taper was initiated and well-tolerated; she got discharged on bromocriptine and dantrolene to follow-up with neurology.

Discussion:
In addition to symptomatic treatments and discontinuing antidopaminergic medications, direct and central skeletal muscle relaxants are recommended. The strategy to taper off these medications is not standardized. We suggest a regimen of very slow taper over a faster taper. Antipsychotic medications may be reintroduced after a “medication break” at a lower dose.

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Resident/Fellow Poster # 59 Category: Clinical Vignette

Program: Henry Ford Allegiance Health
Program Director: Vivek Kak, MD, FACP
Presenter: Hassan Liaqat
Additional Authors: Narine Shirvanian, Mohammad Ammad Ud Din, Ali Amin

Levamisole Induced Vasculitis

Introduction

Levamisole induced vasculitis is a relatively uncommon entity. Most cases in the US are secondary to cocaine use that is contaminated with levamisole, which is added intentionally to synergize the stimulant effects of cocaine.

Case Report

55-year-old female presented with complaints of joint pain and skin ulcers on bilateral earlobes and elbows. Due to concerns of vasculitis, evaluation included positive ANCA, pancytopenia and skin biopsy suggestive of vasculitis. Her urine toxicology was positive for cocaine. Patient was treated with steroids but relapsed later after re-exposure to cocaine.

Discussion

Levamisole has been used as an antiparasitic and an immunosuppressant in the past. Its use is currently banned in the US due to its serious adverse effects but is commonly encountered as an adulterant in cocaine. A specific dose or time frame from exposure has not been identified. Initial symptoms may be nonspecific like arthralgias or fatigue. Vasculitis is usually preceded by pancytopenia and has a characteristic pattern of tender purpura with predilection to involve the ears and nose. Levamisole induced vasculitis is usually a diagnosis of exclusion but p-ANCA and c-ANCA along with a skin biopsy may aid in diagnosis. Treatment primarily revolves around cessation of offending agents and recurrence is common with re-exposure.

Conclusion

Levamisole induced vasculitis should be considered in a patient with a history of cocaine use with arthralgias, pancytopenia and necrotic skin ulcers with either p- ANCA or c-ANCA. Once diagnosed, treatment is primarily with avoidance of the offending agent

ACP Michigan Chapter Scientific Meeting 2020
Resident/Fellow Poster # 60 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Yahia Al Turk
Additional Authors: Stephanie Tancer, MD; Jian Li, MD,PhD

Renal Granulomatosis as an Atypical Cause of Acute Kidney Injury

Acute interstitial nephritis (AIN) classically presents as acute kidney injury (AKI). Drugs are the most common cause of AIN; however, infections and systemic diseases (eg, systemic lupus erythematosus, sarcoidosis, or IgG4-related AIN) are other less frequently encountered causes. We describe the case of a 28-year-old man who was transferred to Henry Ford Hospital for evaluation of fever of unknown origin (FUO) and stage 1 AKI. He indicated that he had not used any new medications or illicit drugs during the year before presentation. Extensive testing was done for infectious and autoimmune etiologies, and all results were unremarkable. CT chest/abdomen/pelvis showed mild axillary and pelvic lymphadenopathy not amenable to biopsy. Days after his admission, the patient had worsening serum Creatinine. He underwent kidney biopsy that revealed tubulointerstitial non-necrotizing granulomatous inflammation. Tests for infectious organisms and IgG4 stains were negative. Patient was started on Prednisone and his clinical symptoms improved significantly. After other etiologies were ruled out, renal sarcoidosis was thought to be the cause of his AKI.

This case illustrates renal granulomatosis as an atypical cause of FUO and AKI. Renal granulomatosis has multiple etiologies. Detailed medical and drug histories must be obtained during initial evaluation. Also, workup for infectious agents and investigations for autoimmune illnesses are recommended if no offending agent is detected. Renal sarcoidosis is reported in the literature to be the most common cause of renal granulomatosis. However, diagnosis cannot be made until other etiologies are ruled out, particularly when other findings suggestive of sarcoidosis are lacking.

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Resident/Fellow Poster # 61 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Ahmad Aljamal
Additional Authors: Taha Ashraf, MD; Amanda Godfrey, MD

A Typical Presentation of Atypical Pneumonia During Coronavirus Disease 2019

Introduction: With the surge of atypical pneumonia encountered during the coronavirus disease 2019 (COVID-19) pandemic, maintaining a differential diagnosis for atypical pneumonia is essential, especially in the immunocompromised patient.

Case: A 75-year-old male with a history of type 1 diabetes, status post renal transplant in 2002, on tacrolimus, mycophenolate, and prednisone, who presented with acute onset shortness of breath and fever. He was hypoxic and ultimately intubated. Chest imaging revealed multifocal infiltrates. Labs showed lymphopenia with elevated LDH, CRP, ferritin, and procalcitonin. Legionella, influenza, and three COVID-19 tests were negative. He was treated with high-dose prednisone, and empirically for bacterial and pneumocystis pneumonia (PCP) with ceftriaxone, doxycycline, clindamycin, and primaquine (trimethoprim-sulfamethoxazole allergy). He improved and was extubated the next day but remained hypoxic. Further testing revealed elevated beta-D-glucan, and sputum PCR was positive for PCP. Trimethoprim-sulfamethoxazole oral challenge showed no allergic reaction. The therapeutic dose was initiated and corticosteroids continued, leading to the eventual resolution of pneumonia.

Discussion: COVID-19 can present similarly to PCP with lymphopenia, elevated LDH, and multifocal infiltrates on imaging. Conversely, procalcitonin elevation typically occurs in bacterial and fungal pneumonia rather than viral pneumonia and can be a helpful tool for differentiating atypical pneumonia. Trimethoprim-sulfamethoxazole is first-line treatment for PCP. In severe or intractable infection, desensitization to trimethoprim-sulfamethoxazole is recommended for patients with non-anaphylactic drug allergies.
Conclusion: This case highlights the importance of considering alternative diagnoses in certain subsets of patients and gives notice to the occurrence of cognitive errors like anchoring and confirmation bias during a pandemic.

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Resident/Fellow Poster # 62 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Khaled Almadhoun
Additional Authors: Muhammad Ali Shahid DO, Maher Musleh DO

Atypical Etiology of Cavitary Lesion

Methicillin-resistant Staphylococcus Aureus (MRSA) is commonly a nosocomial cause of pneumonia. Community acquired MRSA has emerged as an important cause of pneumonia in individuals. Necrotizing pneumonia has been associated with Panton-Valentine leukocidin toxin producing MRSA in healthy individuals. We present a healthy male with a cough and pleuritic chest pain secondary to a cavitary lung lesion.

A 42-year-old healthy male presented with blood tinged sputum and pleuritic chest pain preceded by flu-like symptoms. He was septic on presentation. Imaging revealed a right lower lobe cavitary lesion measuring 3.3 cm, and antibiotics were started. Tuberculosis was negative. Sputum cultures grew MRSA. A right sided pleural effusion with cavitary lesion was present on repeat imaging. He underwent a thoracentesis showing an exudative effusion and a catheter placed. He improved after fluid drainage and discharged to complete 4 weeks of antibiotics.

The differential for cavitary lung lesions is wide and initial recognition is essential. Therapy begins with antibiotics. Worsening symptoms warrant a para-pneumonic effusion workup, treated with chest tube placement. Video assisted thoracoscopic surgery (VATS) or fibrinolytic therapy can be used. Our patient had a complicated para-pneumonic effusion secondary to MRSA pneumonia, treated with antibiotics and chest tube placement. Necrotizing pneumonia associated with MRSA producing PVL has been implicated in cavitary lung lesions with worsening outcomes.
Non-TB cavitary lung lesions present with multiple etiologies. Treatment includes antibiotic use tailored to the specific organism. If unsuccessful, catheter and chest tube placement is necessary. In severe cases, VATS or fibrinolytic therapy is used.

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Resident/Fellow Poster # 63 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Sally Askar
Additional Authors: Nicholas Coriasso, DO; Junior Uduman, MD

Case of Collapsing Focal Segmental Glomerulosclerosis in a COVID-19 Infection

Case Description: 72-year-old African American male with history of hypertension presents with acute onset altered mentation and generalized weakness. Patient developed acute hypoxic respiratory failure and acute kidney injury, and was diagnosed with COVID-19 infection. Admission laboratory work demonstrated elevated creatinine 9.36 mg/dL (baseline 1.19) with elevated BUN 123 mg/dL and proteinuria with urine albumin:creatinine ratio 2335.1 mg/g and protein:creatinine ratio 4240 mg/g. Patient became oliguric and required hemodialysis. Kidney biopsy on day 8 showed collapsing glomerulopathy with 28% global sclerosis, acute tubulointerstitial nephritis and acute tubular injury. Patient was treated with high-dose prednisone 0.5 mg/kg twice daily and hemodialysis.

Discussion:
This is one of the first known cases of collapsing glomerulopathy (CGP) in COVID-19 infections in North America. CGP is commonly seen in patients of African ancestry. The disease is rapidly progressive, and commonly described as acute renal failure in setting of nephrotic-range proteinuria. It is typically associated with HIV, but can be seen in patients with APOL1-risk variants, which predisposes patients to increased risk of renal disease and progression of ESRD, as well as hepatitis C, parvovirus, cytomegalovirus, obesity and heroin use. Pathogenesis of CGP is under extensive research, and has been theorized to be secondary to podocyte injury resulting in glomerulosclerosis. The mechanism of renal injury in COVID-19 infections is not clear, but has been attributed to cytokine release syndrome (CRS) or 'cytokine storm', resulting in cytokine-mediated tubular damage, intrarenal inflammation, increased vascular permeability and volume depletion. Further investigation is warranted in determining mechanisms of renal injury in COVID-19-related collapsing glomerulopathy.

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Resident/Fellow Poster # 64 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Julia Bachler
Additional Authors: Christopher Giles DO, Cori Russell MD

It's Important to Know the Side Effects!: Sumatriptan Induced Coronary Vasospasm

Coronary vasospasm is a known, but rare complication of sumatriptan treatment for migraine. Sumatriptan works via serotonin-1B/1D receptors located throughout the coronary and cerebral arteries. [3,4] With serotonin's vasoactive activity, sumatriptan can cause unintended vascular complications.

A 48 year-old male patient with migraines, asthma, hypertension, peripheral artery disease, and known coronary artery disease (CAD) with stenting presented to the emergency department for severe headache. The headache was described as a left sided, retro-orbital stabbing pain with eye watering, photophobia and phonophobia. The headache did not improve with acetaminophen, metoclopramide, ketorolac, dexamethasone, and intravenous fluids. He was given 6mg of subcutaneous sumatriptan. Shortly after administration, he experienced transient chest pain and diaphoresis. Electrocardiogram (ECG) revealed T-wave inversions in leads I, II, III, aVF, and V4-V6. Troponin I level was 98 ng/L, with a peak of 241 ng/L. Shortly after, symptoms resolved, and hours later, ECG changes resolved. He was initially treated for non-ST-elevation myocardial infarction (NSTEMI) and was admitted to telemetry. After admission, given the transient nature of his symptoms and the direct relation to sumatriptan administration, NSTEMI treatment was discontinued. Rosuvastatin, lisinopril, and ezetimibe were added to his home aspirin, clopidogrel, and metoprolol succinate, and he was instructed to avoid triptans. [1]

We illustrate a case of sumatriptan induced transient myocardial ischemia with ECG changes in a patient with known CAD. Literature review demonstrates that while rare, this risk exists, thus exhibiting the need for conscientious headache medication prescribing, even with protocolized medication regimens.

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Resident/Fellow Poster # 65 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Layan El-Khatib
Additional Authors: Raya Bani Kenana, Sarah Gorgis, Ryan Gindi

A Curious Case of Right Atrial Mass

Right atrial (RA) masses are rare. The most common RA mass is a myxoma, 15-20% of which arise in the RA. Right heart thrombi are rare; however they can occur in the setting of severe right ventricular (RV) dysfunction, atrial fibrillation, antiphospholipid syndrome, central venous lines, pacemaker wires or history of surgical repair of ASD. 25 year-old female with a history of mild asthma, and OCP use presented to the ED with hemoptysis. In the ED, vitals were stable, labs were significant for WBC 16.3 and hemoglobin 11.3. CXR was negative for acute process, CTA-PE showed mild bilateral lymphadenopathy and non cavitary pulmonary nodules suggestive of septic emboli or metastasis. She was admitted for concern of IE and was started on IV antibiotics. TTE revealed EF of 65% and a RA mass near the tricuspid valve described as a mobile echodense ring with a lucent center. TEE further described a 55mmx16mm mass attached to the RA appendage and wall prolapsing in and out of the RV. Cardiac MRI (CMR) concluded that the mass is most likely a thrombus extending from the RA to the hepatic IVC. Antibiotics were discontinued, and she was started on anticoagulation. Cardiothoracic surgery excised the RA mass. Pathology revealed organizing thrombus. The patient was discharged on Apixaban and referred to hematology for hypercoagulable workup.

Management of atrial thrombi is unclear. Thrombolysis should be considered, cardiac surgery is recommended for large thrombi, or failure/contraindications of thrombolysis. Long-term anticoagulation should be considered in all patients.

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Resident/Fellow Poster # 66 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Meghan Gwinn
Additional Authors: Syed Waqar MD, Stanley Linder DO, Amulya Rajagopal MD, Dragos Galusca MD, Sandeep Soman MD

Pandemic Kidneys: COVID-19 Leading to Altered Renal Function

COVID-19's impact on the human body is pervasive. We describe a case of a young healthy male who presented with COVID-19 and kidney dysfunction.

A 25-year-old man with no known medical history presented with acute respiratory distress syndrome from COVID-19 requiring intubation and hemodynamic instability requiring multiple vasopressors, including vasopressin. The patient had an acute kidney injury with osmotic diuresis (serum sodium:132, urine sodium:141, and urine osmolarity:364). Urinalysis demonstrated glucosuria and rhabdomyolysis. Vasopressin was increased and subsequently, urine output decreased. His hyponatremia attributed to renal salt wasting was managed with isotonic fluid replacement. Stress steroids were initiated. Vasopressin was discontinued and urine output increased substantially (serum sodium:137, urine sodium:<10, urine potassium:4.7, and urine osmolarity:111). The patient's sodium self-overcorrected, with subsequent refractory hypernatremia. He continued to have a large free water clearance. CT head showed partially empty sella. He received multiple DDAVP doses and free water correction for his hypernatremia. His condition worsened and care was eventually withdrawn.

This patient's kidney dysfunction is multifactorial. Autopsies of COVID-19 patients have demonstrated proximal tubule injury damage, demonstrated above as glucosuria and osmotic diuresis. It is possible that COVID-19 septic shock caused pituitary infarct leading to decreased ACTH production, but ADH still being released from the posterior pituitary. This played a role in causing renal salt wasting osmotic diuresis until stress dose steroids were started. The patient's storage of ADH eventually became depleted and he went on to develop transient central diabetes insipidus requiring DDAVP. Additionally, myoglobin toxicity likely contributed to multifaceted renal impairment.

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Resident/Fellow Poster # 67 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Rawan Hammoudeh
Additional Authors: Taha Ashraf, Danial Hrabec, Kinni Harish, Namita Jayaprakash

A Case Series of 3 Patients with Pneumomediastinum: An Underappreciated Phenomenon of COVID-19

SARS-CoV2 is the novel coronavirus responsible for COVID-19 that was declared a worldwide pandemic on March 11th, 2020 by the World Health Organization. SARS-CoV2 shares 82% of its genome with SARS-CoV which was responsible for the 2003 outbreak of SARS. At that time, spontaneous and secondary pneumomediastinum, unrelated to intubation and positive pressure ventilation, were reported with rates ranging up to 12%. Herein, we present three cases of pneumomediastinum in patients with COVID-19.

Our cases include a 70 year old male, a 22 year old female and a 91 year old male, all admitted for acute hypoxic respiratory failure, and all tested positive for SARS-CoV2. During hospital stay, all 3 patients were found to have signs of pneumomediastinum on chest imaging. Two of these cases occurred spontaneously after recovery from the initial hypoxic respiratory failure insult associated with COVID-19. While one of the cases we report occurred in the setting of mechanical ventilation, we note that cases of documented secondary pneumomediastinum from barotrauma in ARDS are rare. Our experience of identifying a series of pneumomediastinum diagnoses in COVID-19 patients suggests it may be an underrecognized feature. The increase in mortality observed in previous studies suggests this finding is prognostically significant and an important radiological diagnosis. The mechanism in COVID-19 has not yet been elucidated, however, it is plausible that the brisk inflammatory response seen with this disease may be responsible.

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Resident/Fellow Poster # 68 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Rim Ishak
Additional Authors: Abigail Entz, Sanam Husain, Eric Scher

Combined Hepatocellular Carcinoma and Neuroendocrine Carcinoma Presenting with Hypercalcemia

Malignancy-associated hypercalcemia (MAHC) occurs in 20-30% of cancer patients and is a common cause of hypercalcemia among hospitalized patients. Its pathophysiology is generally based on bone metastases or the production of parathyroid hormone-related peptide (PTHrP) by tumor cells. Here, we present a rare case of combined hepatocellular carcinoma (HCC) and neuroendocrine carcinoma (NEC) presenting with hypercalcemia.

A 67-year-old male was referred to our hospital for evaluation of hypercalcemia. Computerized tomography (CT) scan of chest/abdomen/pelvis showed a cirrhotic liver and a 6.5 cm hypodense mass within the left hepatic lobe. His parathyroid hormone (PTH) was low at 8 pg/ml (15-65 pg/ml) and PTHrP was high at 105 pg/ml (14-27 pg/ml). Repeat imaging with MRI showed a 17 x 8 cm area of signal abnormality with 2 more focal anomalies within, suspicious for malignancy which may be infiltrative. Microscopic evaluation showed two distinct patterns. A typical moderately differentiated HCC and a second malignant focus composed of hyperchromatic small to intermediate sized cells with apoptosis, atypical mitoses, vaguely palisading tumor cells around foci of necrosis. This second focus stained positively with CD56 and CAM 5.2 was suggestive of neuroendocrine differentiation and epithelial lineage. His workup was negative for another primary malignancy. His PTHrP increased to 335 pg/ml. He received supportive care and expired 3 weeks from initial presentation.

Primary HCC and NEC generally tend to have a poorer prognosis than conventional HCC. To our knowledge, this case is the second report of primary mixed HCC and NEC associated with MAHC caused by the production of PTHrP.

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Resident/Fellow Poster # 69 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Sunjay Modi
Additional Authors: Alex Horbal DO, Jasmine Fares Alsukhon MD, Haejin Kim MD

Persistent Hypogammaglobulinemia Despite Replacement Therapy in CVID Secondary to Protein Losing Enteropathy

We present a rare case of a 40-year-old male with PMH of B cell Lymphoma s/p R-CHOP and radiation in remission, recent diagnosis of Common Variable Immunodeficiency (CVID) and recurrent C. difficile colitis admitted to the ICU for left hip abscess and Acinetobacter pneumonia causing septic shock. Patient was found to have lack of lack of normal IgG levels after recent IVIG infusion due to protein loosing enteropathy and protein loss from chronic wounds. CVID should be suspected in individuals with reduced levels of serum IgG in combination with low levels of IgA and/or IgM, reduced response to immunizations and an absence of any other immunodeficiency state. Our patient was tested for an immunoglobulin deficiency as patient had multiple courses of failure of antibiotics for joint infections and was found to have low IgG, IgM, and IgA level prior to hospitalization. It was thought the immunoglobulin deficiency was a secondary hypogammaglobulinemia due to Rituximab, but there was strong clinical suspicion for true CVID given the severity of his infections. When this patient's persistent hypogammaglobulinemia during his hospitalization was discovered even after IgG infusions, reversible causes were looked into such as nephrotic syndrome. It is likely that patient's acute drop in IgG 14 days after IgG infusions may have been due to protein loosing enteropathy secondary to recurrent C. difficile diarrhea and protein loss from significant serosanginous drainage from chronic wounds.

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Resident/Fellow Poster # 70 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Mustafa Mohammed
Additional Authors: Omar Sallam MD, Ahmed Elbanna DO

Interesting Presentation of Recurrent Statin-Induced Necrotizing Myopathy

Introduction: It is well known that statins can be associated with myopathy, myalgias and elevation in CPK. These aforementioned events resolve on discontinuation of statins. One unique presentation is autoimmune myopathy that persists despite discontinuation of statins and requires immunosuppression.

Case Presentation: 67-year-old male with past medical history of hyperlipidemia on atorvastatin. He presents with diffuse weakness and muscle pain. Patient had CPK of 35,000 which improved with intravenous fluids and steroids. Statin was discontinued. Patient with similar presentation 1 month later and muscle biopsy showed necrotizing myopathy. Patient was treated with intravenous solumedrol and was discharge on oral steroids. Few weeks later, patient had similar presentation and tested positive for HMG-CoA reductase antibody. Patient treated with intravenous immunoglobulin and intravenous steroids. Upon discharge patient received 3 months of weekly intravenous steroids and monthly intravenous immunoglobulin. Patient presented 1 year later with similar presentation and was treated with intravenous solumedrol and intravenous fluids and discharged on prednisone taper. Patient with recurrence of symptoms 2 months later. At that time patient was treated with intravenous fluids and intravenous steroids again. Patient was started on a long prednisone taper and started on Rituximab. Patient with continued improvement in symptoms but did not return back to baseline strength.

Discussion: It is important to recognize complex disease processes. Despite having stopped the statin, patient continued to have recurrent episodes of rhabdomyolysis. With the proper follow up and understanding of the disease, patient could have had much less complications, hospitalizations and strain on his life.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 71 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Amulya Rajagopal
Additional Authors: Meghan Gwinn MD, Aeman Hana DO, Georgi Fram MD, Abigail Entz MD, Cori Russell MD, Sandeep Soman MD

Pleural Effusion: Think Outside the Thorax

Introduction: Pleural effusions, from migration of fluid from the peritoneal cavity to the thorax, are a rare complication of peritoneal dialysis (PD). The incidence is less than 2% in all PD patients. We describe a case of persistent nausea and emesis from COVID-19 leading to hydrothorax in a PD patient.

Case Presentation: A 73-year-old female with a 2-year history of ESRD on PD and recent COVID-19 diagnosis presented with increasing shortness of breath, nausea, and emesis. A chest x-ray revealed a new large right pleural effusion. Thoracentesis removed 800cc of transudative fluid. She continued to have worsening dyspnea with PD sessions. A repeat thoracentesis removed 1500cc from her right lung field with similar fluid studies. Pleural glucose was 349mg/dL, while serum was 101mg/dL. The patient was treated conservatively with temporary transition to hemodialysis. The non-physiologic glucose concentration in the pleural fluid suggested a trans-diaphragmatic leakage of peritoneal dialysate. CT imaging did not reveal any diaphragmatic fistulas.

Discussion: A broad differential is necessary when dealing with transudative pleural effusions. Patients with a pleuro-peritoneal leak present with dyspnea and reduced dialysate drainage. Diagnosis is made by imaging and thoracentesis fluid studies showing a high glucose gradient (>100mg/dL) and low protein. Fluid icodextran concentration can support the diagnosis. Peritoneal scintigraphy and contrast CT peritoneography can rule out diaphragmatic communications. This complication usually occurs within 1 year after starting PD. Conservative treatment involves temporary transition to hemodialysis to allow closure of pleuro-peritoneal leaks. Chemical pleurodesis or surgical correction of fistulas can be utilized if conservative measures are ineffective.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 72 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Khalil Saleh
Additional Authors: Amulya Rajagopal MD, Georgi Fram MD, James McCord MD

COVID-19 Complicated by Myopericarditis, Mycotic Aneurysm and Persistent MRSA Bacteremia

Introduction:
Mycotic aneurysms are a rare, life-threatening diagnosis, with a high mortality rate. Here we present a case of mycotic aneurysm which presented as a complication of COVID-19.

Case Presentation:
A 73-year-old female with metabolic syndrome and coronary artery disease presented to the hospital for worsening dyspnea and palpitations. She was admitted for acute respiratory failure after recent diagnosis of COVID-19. Workup with ECG showed atrial fibrillation and diffuse ST elevation without reciprocal changes. BNP, troponins, and inflammatory markers were elevated. Bedside echocardiogram revealed a large pericardial effusion with concerns for tamponade. Patient was diagnosed with myopericarditis and underwent pericardiocentesis.

Discussion:
The hospital course was complicated by persistent fevers, tachycardia, hypotension, elevated WBCs, and persistent positive blood cultures for MRSA. Trans-thoracic and trans-esophageal echocardiogram were negative for endocarditis. CT chest-abdomen-pelvis revealed a large rapidly expanding pseudo-aneurysm of the thoracic aorta, the likely source of MRSA bacteremia. Later, pericardial fluid was sent for culture and grew MRSA. After the source was identified the patient was not deemed a candidate for surgical intervention and died due to cardiac arrest.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 73 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Ali Shahid
Additional Authors: Hafsa Abdulla. Geneva Tatem

Thyroid Storm: The Last Storm You'll Ever Face

Thyroid Storm is the most extreme case of thyrotoxicosis and has the potential to affect every organ system in the body. It is typically precipitated by an acute inciting event in the setting of underlying hyperthyroidism, such as acute illness, trauma, or surgery. We present a 33-year old female who presented with symptoms and lab findings consistent with thyroid storm.

Our patient is an 33 year old female who initially presented to the ED with non-bloody vomiting, watery diarrhea, nausea, and diffuse abdominal pain, along with worsening anxiety and diaphoresis. Her initial vitals were significant for tachycardic to 146 bpm, tachypnea, hypertensive, but afebrile. Her initial labs were significant for TSH<0.01, FT4 3.54, FT3 7.8. Initial VBG showed pH 7.16, pCO2 23.8, HCO3 8, with Anion Gap 18 with normal glucose and lactate levels. She was initially started on Propanolol and Prophythiouracil, but PTU was eventually switched to Methimazole. Her Thyrotropin Receptor Autoantibody was increased at 91 and her Thyroid Peroxidase Antibody was increased at 307. She was discharged on Propanolol and Methimazole upon improvement. Her repeat labs 3 months later showed marked improvement with treatment.

The diagnosis of thyroid storm is typically a clinical one, with overt symptoms of thyrotoxicosis dominating a patient's presentation, including life-threatening tachycardia, hyperpyrexia, and altered mentation along with biochemical evidence of hyperthyroidism. Initial therapy begins with a beta-blocker and either PTU or Methimazole to prevent T4 to T3 conversion. Glucocorticoids and Cholestyramine may also be used o reduce enterohepatic recycling of thyroid hormones.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 74 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Batool Shukr
Additional Authors: Rafa Khansa, Reem Kashlan, Sean Drake

Superior Mesenteric Artery Syndrome: Impressive CT Images

Superior mesenteric artery (SMA) syndrome is a rare cause of gastrointestinal obstruction in which an acute or substantial amount of weight loss causes a reduction in the mesenteric fat pad, and thus decreases the aortomesenteric artery angle, leading to duodenal compression and obstruction. We report a case of a 24-year-old female with a history of cocaine and heroin abuse with a body mass index (BMI) of 16. She presented with acute onset intractable abdominal pain and bilious emesis following significant weight loss (>20% of total body weight) in the symptom-free months prior to admission. CT abdomen demonstrated considerable narrowing of the aortomesenteric artery angle to 18° as well as significant distention of the stomach and proximal duodenum down to the pelvis, concerning for SMA syndrome. EGD demonstrated extrinsic compression of the third portion of the duodenum, consistent with SMA syndrome. The patient was treated conservatively with nutritional support through a gastrojejunostomy feeding tube. She responded well to treatment with an increase in BMI of 9.3% one month following hospital discharge. This case emphasizes the insidious onset of symptoms in SMA syndrome, presumably due to appreciable gastric distention compensating for the gradual duodenal obstruction. Increased awareness of this syndrome, its presentation, and the associated precipitating factors will optimize testing, diagnosis and management.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 75 Category: Clinical Vignette

Program: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Gulmohar Singh
Additional Authors: Omar Sallam MD, Amulya Rajagopal MD, Hussayn Alrayes DO, Michael Lazar MD

Listeria Monocytogenes Presenting as Meningoencephalitis in an Immunocompetent Patient

Introduction: Listeria monocytogenes is the third most frequent cause of bacterial meningitis. Early diagnosis and treatment is critical to decrease neurological complications.

Case Presentation: A 52-year-old male with a past medical history of alcohol abuse was transferred to our hospital for altered mental status. Investigatory work up included a lumbar puncture showing WBC of 260/cu mm with lymphocytic predominance, elevated protein of 100 mg/dL, glucose of 50 mg/dL and negative culture. Other extensive infectious and autoimmune work up was negative. Brain MRI revealed small punctate areas of acute ischemia within the bilateral corona radiata. He was initially started on empiric antibiotics with vancomycin, ceftriaxone, and acyclovir. No clinical improvement was noticed. Repeat brain MRI revealed new periventricular white matter lesions and evolutionary change in pre-existing lesions. EEG revealed generalized rhythmic delta activity with triphasic morphology and background slowing concerning for partially treated meningitis. Blood cultures returned positive for Listeria monocytogenes. He was diagnosed with listeria meningoencephalitis. His antibiotics were optimized to ampicillin and trimethoprim/sulfamethoxazole for a total duration of 6 weeks.

Discussion: Listeria monocytogenes rarely causes meningitis and meningoencephalitis in immunocompetent individuals. Generally, it affects immunocompromised patients, elderly patients and pregnant women. CNS manifestations can range from altered mental status to coma while physical examination for many patients can be negative for meningeal signs. CSF analysis typically shows lymphocytic predominance, elevated protein and low glucose. CSF cultures are only positive in one third of patients. This case illustrates a unique presentation of Listeria monocytogenes meningoencephalitis in an immunocompetent individual.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 76 Category: Clinical Vignette

Program: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Khaled Jamoor
Additional Authors: Joseph Abbo MD, Nikhil Ambulgekar MD

Spontaneous Coronary Artery Dissection, the Underrecognized cause of Acute Coronary Syndrome in Younger Females

Spontaneous coronary artery dissection (SCAD) is an increasingly recognized cause of acute myocardial infarction (AMI) in women. SCAD has been reported to account for nearly 0.5-1 % of AMI in the general population. It is more common in pre or postmenopausal women and it is not usually associated with the traditional atherosclerotic risk factors.

Here we present a case of a 45-year-old woman who presented with her second acute ST elevation myocardial infarction within 4 years. She was treated after her first event as vasospastic angina. Cardiac catheterization revealed diffuse narrowing of two coronary arteries that didn't improve with nitroglycerine concerning for SCAD. Further work up revealed family history of vascular abnormalities and connective tissue disorders.

SCAD has been reported to be responsible for 25 % of AMI in women ≤ 50 years old. Arterial vascular disease and connective tissue abnormalities have been reported in the majority of cases. The typical angiographic changes were reported to be seen in less than half of the patients. Thus, SCAD should be suspected in young females presenting with AMI, especially if other vascular or connective tissue disorders are present. Management is usually conservative as coronary stent placement is challenging and has not been well studied.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 77 Category: Clinical Vignette

Program: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Han Lam
Additional Authors: Ashish Verma M.D., Gloria Hong M.D., Jason Rosner M.D., Misha Masumy

Pembrolizumab (Keytruda) Associated Diabetic Ketoacidosis in a Previously Nondiabetic Patient

Immune checkpoint inhibitors have been shown to be an essential part of cancer treatments, however there have been reported immune related adverse events. Type 1 diabetes was reported in only 0.1% of the patients in clinical trials of Pembrolizumab, a programmed cell death 1 (PD-1) inhibitor. We present a case of pembrolizumab associated DKA in a previously nondiabetic.

Patient is a 75yo male with a history of carcinoma in situ of the bladder, prostate cancer, carcinoma of unknown primary (had been on Atezolizumab, Taxotere), CKD presents to the hospital with fatigue, weakness and diarrhea. Of note, the patient was recently started on carboplatin/taxotere/keytruda 1 month prior. Initial labs were indicative of DKA with elevated anion gap metabolic acidosis, beta-hydroxybutyrate 10.22, glucose 1,884, pH 7.12. Workup during hospitalization revealed low levels of C-peptide; however, islet-cell antibodies, insulin antibodies, glutamic acid decarboxylase antibodies were all within normal limits. Hemoglobin A1c of 7.9 and lipase were noted to be elevated at 162IU/L.

Pembrolizumab blocks and prevents binding of tumor cells to PD-1 on lymphocytes allowing T-cell mediated destruction. However, because of non specificity, non-cancerous cells are also affected. In animals, Pembrolizumab has been shown to act on beta islet cells of the pancreas and cause subsequent destruction of insulin producing cells. The temporal relationship of pembrolizumab and low A1c in our patient suggests a direct correlation. Cases such as this stress the importance of monitoring patients for signs and symptoms of diabetes when starting immunotherapy such as pembrolizumab.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 78 Category: Clinical Vignette

Program: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Niren Naidoo
Additional Authors: Frank Adamini, MD; Jixian Wu, MD; Syed Ali Muttaqi Husain, MD

Lymphadenopathy: Specifically Non-Specific

Introduction

Lymphadenopathy is a non-specific physical examination finding that may be localized or systemic, and may relate infectious, inflammatory or malignancy related conditions. Although invasive, lymph node biopsy plays a particularly important role in diagnosis and clinical course.

Case Presentation

A 50-year-old female with past medical history of lupus and recent cardiac arrest presented to the hospital after fevers and serosanguenous drainage from her recently placed AICD site. The AICD was removed and she was started on broad-spectrum antibiotics. Wound cultures grew positive for Escherichia coli however blood cultures were negative. She continued have episodic pyrexia up to 103ºF with progressive bilateral axillary and inguinal lymphadenopathy. CT imaging showed no infectious etiology. Numerous prolonged antibiotic regimens were tried with no improvement in symptoms. Lymph node biopsy was later performed with findings suggestive of lupus lymphadenitis. Following initiation of steroids, her symptoms rapidly improved.

Discussion

Lymph node biopsy is the gold standard for lymphadenopathy of unknown etiology in a symptomatic patient. While invasive and time consuming, this may lead the clinician toward a timely diagnosis and treatment. This case demonstrates the importance of both a thorough physical examination and early directed biopsy in order to avoid a prolonged hospital course. Additionally, while there was high suspicion of infection, the differential diagnosis should always be reevaluated when treatment modalities fail; this patient was diagnosed with lupus flare without the classic lupus findings. It is critical that clinicians avoid anchoring onto diagnoses in order to provide appropriate care and avoid unnecessary healthcare expenses.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 79 Category: Clinical Vignette

Program: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Rita Rehana
Additional Authors: Jay Patel, MD; Najia Huda, MD

How Anchoring Can Sink The Ship

Anchoring bias is a type of heuristic that uses an initial source of information as an "anchor" for basis of decision making. Many types of bias are used in medical decision making, which prompted concerns regarding their influence on diagnostic inaccuracies. Studies have identified "anchoring" conducted in medical literature, clinical vignettes and real life scenarios. These aversions to ambiguities can lead to medical errors, inappropriate use of resources, and patient harm.

A 29 year old male with history of headaches, presented to the ED for suspected overdose. He stated taking an unknown amount of prescribed clonazepam, sumatriptan and ibuprofen. Physical exam was positive for confusion, bradycardia and hypertension. Urine drug screen was positive for amphetamine, benzodiazepine and cannabinoids. On hospital day 1, code blue was called and he was intubated for respiratory distress. Upon reexamination, the patient's pupils were dilated and fixed. CT head demonstrated a 10 cm hyperdense frontal lobe mass with uncal herniation. After contacting the mother, she reported personality changes, odd behaviors, memory loss, worsened headaches and gait disturbances over multiple years. He was transferred to a tertiary hospital for escalation of care and neurosurgical intervention where he ultimately died. Had we spent more time obtaining all the facts, we could've obtained a CT head and arrived at a diagnosis before the patient herniated. Inability to recognize cognitive bias, runs the risk of diagnostic inaccuracies, unnecessary prescribed medications and underestimation of testing. More importantly, addressing anchoring allows the opportunity to decrease patient harm and guide future occurrences.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 80 Category: Clinical Vignette

Program: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Lovepreet Singh
Additional Authors: Jordan Siu DO, Arslan Abbasi MD, Ramanpreet Bajwa MS3

Covid Induced Acute Hepatitis

We present a patient with PMHx of GERD, Hashimotos, obesity, HTN, neuropathy presented with chief complaint of shortness of breath, saturating 92%on room air, chest x-ray finding was patchy bilateral interstitial and alveolar airspace opacities, remaining vitals were stable. Pt did visit an urgent care center a few days prior to coming to the hospital and was tested for COVID-19 which was positive. On arrival her labs were significant for ALT/AST 588/321, NA 133, Ferritin 712, CRP 6.3, LDH 284, WBC 3.4, absolute lymphocytes 0.60, D-dimer 1.27. She was admitted for acute hypoxic respiratory failure secondary to covid-19 infection. GI was consulted for elevated liver enzymes. Pt had no prior history of hepatitis, blood transfusions, recent travel, diarrhea, alcohol abuse, IV drug use or family history of liver disease. Our patient presented with liver enzymes elevation without any recent medication changes or over the counter supplemental use. Extensive work-up was initiated for elevated transaminases which included negative acute hepatitis panel, ANA, autoimmune liver panel, portal and hepatic veins were patent. Given patients continued rise in liver enzymes it was decided that she receive liver biopsy as we did not have a clear explanation to why her enzymes were still climbing. During her hospitalization she was placed on high dose steroids for her acute COVID infection. Pathology report resulted in 4 days, reported as follows The lobular parenchyma demonstrates mild lobular inflammation with occasional hepatocyte drop-out and mild sinusoidal congestion; without steatosis, granuloma or necrosis. These findings may be due to the patient's SARS-CoV-2 infection.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 81 Category: Clinical Vignette

Program: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Vamshi Vadlapatla
Additional Authors: Dr. Siu, Dr. Singh, Dr. Patel, Dr. Saiyed-Javed

SARS-COV-2 Causing Collapsing FSGS

SARS-COV-2 is the causative virus for covid-19 which is predominantly thought to cause respiratory illness ranging from a mild cough to ARDS and multisystem organ failure. It is suspected to have atypical manifestations; we describe such a case in which a confirmed covid-19 patient developed collapsing FSGS.

A 72-year-old African American female with a medical history of essential hypertension, hyperlipidemia, coronary artery disease and stage 2 CKD, not on any nephrotoxic drugs develop acute oliguric renal failure after being diagnosed with covid-19. At the time of presentation, she was noted to have a Creatinine of 10.44 and a GFR of 4, baseline 0.9 and 74 respectively. She was oliguric with nephrotic range proteinuria and progressively worsening renal function which eventually required hemodialysis. Extensive evaluation, including autoimmune, renal ultrasound, hepatitis panel, SPEP revealed no clear etiology for her acute renal failure, subsequently a renal biopsy was performed, which showed evidence of collapsing FSGS.

Much is yet to be discovered about SARS-COV-2 and clinicians should be vigilant for phenotypically diverse presentations of covid-19 to aid in the optimal management of such patients. There is a growing body of evidence to suggest that covid-19 has a wide spectrum of disease activity not limited to the respiratory system and further research is needed to know about the true disease spectrum of covid-19. We propose that covid-19 should be considered in the differential for the patient with acute renal failure, nephrotic range proteinuria and collapsing FSGS, albeit seemingly rare, possibly occurring in genetically susceptible individuals.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 82 Category: Clinical Vignette

Program: Hurley Medical Center/MSU – Flint
Program Director: Ghassan Bachuwa, MD, FACP
Presenter: Murtaza Hussain
Additional Authors: Smit S. Deliwala MD, Anoosha Ponnapalli MD, Mamoon M. Elbedawi MD FACG, Ghassan Bachuwa MD MS MHSA FACP AGSF

Angiotensin-Converting Enzyme (ACE) Inhibitors and Pancreatitis - A Rare Idiosyncratic Drug Reaction

Acute pancreatitis (AP) is commonly encountered with an incidence of 70 per 100,000 people and is one of the most common discharge diagnoses. Most cases are caused by alcohol use and gallstones, but occasionally medications can induce the disease in 5%. Identifying the etiology of AP is of utmost importance. Our patient was initially admitted for asthma exacerbation, and lisinopril dose was increased after remaining on a steady dose for 15 years from 5mg to 20mg. She presented with new-onset pancreatitis in four months, followed by two more episodes within eight weeks that included another dose increase from 20mg to 40mg. The most recent admission included the discovery of a pseudocyst. All etiologies were excluded, including discontinuation of hydrochlorothiazide and statin therapy, and we attributed her recurrent episodes of pancreatitis to sequential increases in lisinopril doses after a thorough chart review and search of the literature. This case represents a valuable point not reported in previous cases. The literature strongly supports the association between angiotensin-converting enzyme inhibitors (ACEi) and a timeline between intake and AP development can occur within hours to years. Despite this, its dose-dependent effects to induce AP has never been reported, while increasing doses have been reported to lead to increased adverse effects. To our knowledge, this case uniquely represents the dose-dependent effects of ACEi on pancreatitis development. We realize the incidence of drug-induced pancreatitis is a diagnosis of exclusion, historically requiring confirmatory re-challenge, although, upon suspicion, we discontinued the medication.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 83 Category: Clinical Vignette

Program: Huron Valley Medical Center – DMC
Program Director: Jeet N. Pillay, MD, FACP
Presenter: Satinderjit Nijjar
Additional Authors: Hadi Abou-Rass, DO PGY-III; Tate Bonifer, MD PGY-III; Shyam Mahesh, MD

Nivolumab Made Me Sweet

Nivolumab is a fully human immunoglobulin G4 (IgG4) monoclonal antibody against programmed cell death-1 receptor, which disrupts T-cell activation and proliferation. It is used in treating advanced cancers and was initially approved for melanoma. While it enhances cancer therapy, it is associated with events such as hyperglycemia and can induce fulminant diabetes mellitus (DM) type 1 resulting in diabetic ketoacidosis (DKA).

A 72-year-old woman with history of malignant melanoma was on chemotherapy presented with lethargy, loss of appetite, polyuria, weight loss, hallucinations, and altered mental status for one week. Upon initial evaluation, she was thin, restless, with labored breathing and dry mucous membranes. Labs were significant for metabolic acidosis with an anion gap of 28, glucose of 644, and beta-hydroxybutyrate above 140 which are consistent with DKA.

Patient had no prior history of DM. A serum glutamic acid decarboxylase antibody (GAD) assay was obtained and was normal. GAD is a major pancreatic islet antibody and an important serological marker for predisposition to DM type 1. Her hemoglobin A1c level was 9.1%. We determined the patient had DKA, which we treated aggressively with intravenous insulin therapy and fluid resuscitation.

Upon further review, we discovered the patient was recently started on nivolumab for melanoma treatment. Her outpatient labs revealed her serum glucose levels were steadily increasing over three weeks prior to hospitalization.

In conclusion, this case highlights the importance of reviewing the patient’s medication list. Unfortunately, we diagnosed our patient with fulminant DKA as a result of her being treated with nivolumab.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 84 Category: Clinical Vignette

Program: Huron Valley Medical Center – DMC
Program Director: Jeet N. Pillay, MD, FACP
Presenter: Eric Snowden
Additional Authors: Jasmin Patel, DO. Batoul Dagher, DO. James Gordon, MD.

Liver Abscesses and Fusobacterium Bacteremia

Fusobacterium species is well characterized as the causative pathogen in Lemierre's syndrome, a septic thrombophlebitis of the internal jugular vein. However, its potential for visceral abscess formation remains underrecognized. We present a unique case of a 62-year-old woman who presented to the emergency department with fever, chills, and a productive cough. It was initially thought the patient had multifocal pneumonia; however, CT thorax revealed no pneumonia but incidentally showed multiple large hypoattenuating masses throughout the right lobe of the liver, which was radiologically suspicious for metastatic malignant disease. The patient underwent a CT guided liver biopsy that showed no malignant cells and a culture that grew no organisms. Blood cultures grew acridine orange stain bacilli that speciated to fusobacterium. Lemierre syndrome was not the source as the patient did not have a recent oropharyngeal infection or dental work, and there was no evidence of septic thrombosis of the internal jugular vein by ultrasound. After the patient was treated with six weeks of parental antibiotics, she underwent a colonoscopy to evaluate for a potential portal of entry for the fusobacterium species. The colonoscopy did not show any polyps but did reveal diverticular disease. It is believed that the fusobacterium invaded the portal vein through the gastrointestinal mucosa from underlying diverticular disease and spread hematogenously to the liver, causing abscesses. This case highlights the importance of further investigation of underlying colonic mucosal injury or malignant process in patients with fusobacterium species bacteremia with hepatic abscesses not caused by an oropharyngeal source.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 85 Category: Clinical Vignette

Program: Huron Valley Medical Center – DMC
Program Director: Jeet N. Pillay, MD, FACP
Presenter: Erica St. Lawrence
Additional Authors: Satinderjit Nijjar M.D., Tate Bonifer M.D., Brandon Genson D.O.

New Kid on the Block, Kratom, as a Potential Cause of Acute Renal Failure

Mitragyna speciosa also known as “Kratom” is an herbal supplement derived from a tropical tree indigenous to South East Asia. The use of Kratom has been increasing in popularity in the US due to its opioid-like analgesic and sedative effects. Although not scientifically proven, Kratom has also gained popularity as a supplement to mitigate the effects of opioid withdrawal. However, it is not currently regulated in the United States and many serious adverse effects are still unknown.

A 35-year-old male with no significant past medical history presented after experiencing acute onset right lower extremity numbness and confusion. A day prior to presentation, the patient admitted to consuming a significantly larger quantity than normal of the herbal supplement Kratom. He was found to have bilateral acute cerebellar infarcts on MRI, a CK level of 31,270, acute oliguric renal failure, and transaminitis. Additionally, he complained of right upper quadrant pain and an abdominal ultrasound revealed gallbladder wall thickening concerning for cholecystitis. His creatinine increased to a maximum of 9.21 necessitating hemodialysis. The patient continued to clinically improve with aggressive IV fluids, antibiotics, hemodialysis and supportive care. He was advised to stop taking Kratom indefinitely and discharged with arrangements to continue hemodialysis as an outpatient. This case illustrates the severe and varied side effects of Kratom consumption including acute renal failure, rhabdomyolysis and acute cholecystitis. It also highlights the need for increased research on the possible dose- dependent side effects of Kratom.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 86 Category: Clinical Vignette

Program: Huron Valley Medical Center – DMC
Program Director: Jeet N. Pillay, MD, FACP
Presenter: Meri Tarockoff
Additional Authors: Batoul Dagher DO, Abeer Berry DO, Katherine Swords DO

Potentially Fatal Acute Coronary Event: Spontaneous Coronary Artery Dissection (SCAD)

Spontaneous coronary artery dissection (SCAD) is a rare complication frequently affecting young women in the peripartum or postpartum period. SCAD may present from mild ischemic symptoms to ST elevation myocardial infarction, ventricular fibrillation, cardiogenic shock and even sudden death. Risk factors and predisposing conditions include pregnancy, intense exercise, oral contraceptive usage, smoking, and fibromuscular dysplasia.

A healthy 36-year-old Arab American male with history of tobacco dependence and family history significant for premature coronary artery disease, presented with chest pain radiating to the left arm and diaphoresis. Initial work-up revealed elevated troponin levels and EKG changes indicative of a non-ST elevation myocardial infarction. He was started on IV heparin and given morphine for pain control. The chest pain continued relentlessly and the troponins continued to rise. Subsequently, he underwent an emergent coronary angiography which depicted dye and contrast in the distal segment of the third obtuse marginal artery suggestive of SCAD. The vessel had no flow limiting features with TIMI score 3. The condition was treated conservatively with dual antiplatelet therapy, aspirin, atorvastatin, metoprolol and isosorbide mononitrate.
This case illustrates that although SCAD frequently affects young women in the peripartum/postpartum period, it may also affect males sporadically. Our patient lacked common cardiovascular risk factors but admitted to intense exercise and smoking prior to the event. Imaging modalities, including CT angiography and aortic duplex, were completed and found to be negative for fibromuscular dysplasia. The condition was managed conservatively with medication and monitoring. Ultimately, the blockages healed within weeks following the diagnosis.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 87 Category: Clinical Vignette

Program: McLaren Macomb
Program Director: Christopher Provanzano, MD
Presenter: Dhuha Alwan
Additional Authors: Michael Scarchilli DO, Salman Fateh DO, Elizabeth Brooks DO

Intraosseous Rhabdomyosarcoma: A Rare Malignancy with a Delayed Diagnosis Due to the COVID-19 Pandemic

Rhabdomyosarcoma (RMS) is a rare type of cancer that forms in soft tissue; specifically skeletal muscle or sometimes in hollow organs such as the bladder or uterus, it accounts for 3-4% of childhood cancers.

A 21-year-old female presented to the emergency department with several months of progressive low back pain and unintentional weight loss. She had previous negative X-rays of the lower back and hips, and was diagnosed with sacroiliac joint arthritis. Physical therapy and pain medications were not helpful in alleviating the pain. The patient was scheduled for an MRI of the back and hip which was delayed due to the COVID-19 pandemic.

Due to worsening pain the patient presented to our emergency department. CT lumber spine showed a large destructive osseous lesion involving the right hemipelvis. CT chest showed bilateral pulmonary nodules consistent with metastatic disease and a cystic lesion in the neck.

The patient was admitted to the hospital for further workup including MRI pelvis which showed a large soft tissue mass with extensive bony involvement and destruction of the right hemipelvis. Needle core biopsy showed extensive necrosis with primitive small blue cells. The tumor staining was positive for CD99, desmin, myogenin, MyoD, and CD56 most consistent with intraosseous rhabdomyosarcoma.

This case illustrates the potential for delayed diagnosis of RMS due to its rarity and potentially unremarkable appearance on plain film; this combined with the COVID-19 pandemic which lead to further workup delays resulted in a delayed diagnosis for our patient. Ultimately, our patient underwent palliative chemotherapy with improvement in pain.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 88 Category: Clinical Vignette

Program: McLaren Macomb
Program Director: Christopher Provenzano, MD
Presenter: Hima Doppalapudi
Additional Authors: Edward Chi, D.O. PGY3* Anila Rao, D.O. PGY 2* Michael Christofis, D.O. PGY4** Sanjay Vora, D.O.* *Internal Medicine, McLaren Mac

Time is of the Essence: Necrotizing Fasciitis

Necrotizing fasciitis is a rapidly spreading soft-tissue infection, leading to devastating consequences if not caught early. Clinical manifestations include soft-tissue edema with crepitus, erythema, pain, and sepsis. However, an atypical presentation may result in a delayed or missed diagnosis.

An 84-year-old gentleman, with a history of multiple myeloma, presented to the emergency department with acutely worsening back pain, radiating to lower extremities and acute on chronic diarrhea. The patient had tenderness to palpation around L4-L5 with CT demonstrating diffuse myelomatous involvement of the spine. Incidentally, the CT indicated suspected proctitis. Overnight, the patient became acutely hypotensive. He had significant erythema with ecchymosis on the proximal left lower extremity and scrotum. There was diffuse edema with crepitus extending down to the proximal thigh. Fluid boluses and broad-spectrum antibiotics were initiated. During the short interval in preparation for emergent debridement, the edema and ecchymosis progressed to the distal left lower extremity and left lower quadrant of the abdomen while involving the whole perineal region. Intraoperatively, the patient was found to have necrotizing fasciitis of the left lower abdomen, left lower extremity, and the whole perineum with extensive myonecrosis. Cultures revealed Clostridium species bacteremia.
This case emphasizes the need to maintain a high index of suspicion for infection, especially in immunocompromised patients, despite the lack of overt signs or symptoms. It is an atypical presentation of proctitis masked by concurrent bone pain, which contributed to the resulting fulminant infection. Early recognition and aggressive intervention are paramount in the treatment of necrotizing fasciitis.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 89 Category: Clinical Vignette

Program: McLaren Macomb
Program Director: Christopher Provenzano, MD
Presenter: Jeanette Girard
Additional Authors: Howard Kerwin DO, Cameron Willoughby DO, John Kazmierski DO

Mitral Valve Prolapse as a Cause of Sudden Cardiac Death

Mitral Valve Prolapse as a Cause of Sudden Cardiac Death
Jeanette Girard, DO, PGY 2 Internal Medicine, Mclaren Macomb Hospital, Mount Clemens, MI.

A small subset of patients with sudden cardiac death (SCD) are known to have only mitral valve prolapse (MVP) as their only abnormality despite an extensive cardiac evaluation. Studies have shown a correlation between MVP and increased risk of arrhythmia and SCD though a causal relationship has yet to be identified.

A 35-year-old woman with known MVP presented to the emergency department following cardiopulmonary arrest in her home. She underwent cardiopulmonary resuscitation by her husband and a neighbor supplied an AED with the return of spontaneous circulation. In the emergency department, the patient had multiple episodes of a polymorphic ventricular tachycardia that required overdrive transcutaneous pacing. The patient was evaluated and determined to be a candidate for therapeutic hypothermia. Following return to normothermia, the patient was evaluated with echocardiography and a cardiac MRI which confirmed the presence of grade 1 myxomatous MVP and new mild anteroseptal hypokinesis. No accessory pathways or QT prolonging abnormalities were found on cardiac MRI. The patient underwent AICD placement and was subsequently discharged home with outpatient follow up including future cardiac catheterization.

This case illustrates the importance of MVP as a possible cause for malignant arrhythmias associated with SCD and the need to consider a thorough evaluation by cardiology following a new diagnosis of MVP to risk stratify patients for future SCD.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 90 Category: Clinical Vignette

Program: McLaren Macomb
Program Director: Christopher Provenzano, MD
Presenter: Akhlema Haidar
Additional Authors: Alexandra Davies DO, Afzal Hussain DO, Samuel Gregerson OMSIII, Dheeraj Thammineni MD, Johnathon Markus MD

Wilkie's Weight Loss Wonder

Wilkie's syndrome, or superior mesenteric artery (SMA) syndrome, is a rare cause of partial or complete duodenal obstruction resulting in vague abdominal symptoms. The pathogenic mechanism is an acute compression of the third portion of the duodenum as it passes between the aorta and the superior mesenteric artery.

A 24-year-old Caucasian female, with a history of a 20 pound weight loss, presented with epigastric pain relieved by emesis and sitting upright. CT of the abdomen and pelvis with IV contrast indicated significantly dilated stomach and duodenum due to compression of the duodenum with an aortomesenteric angle of six degrees. Patient was unable to tolerate multiple attempts at nasogastric tube placement, therefore a decision was made to perform an esophagogastroduodenoscopy for decompression. Approximately 2 liters of chyme was removed during EGD. After a multidisciplinary review of the case, the patient was transferred to a tertiary care center where a gastrostomy-jejunostomy tube was placed. The patient initiated tube feedings and at one month follow-up, the patient continued to gain weight with improvement of symptoms.

Diagnosis of SMA syndrome can be difficult due to the nonspecific symptoms that often overlap with other obstructive processes. Varying etiologies such as weight loss, trauma, and anatomic abnormalities can further obscure diagnosis . SMA syndrome can be identified through imaging modalities such as barium studies and CT. Maintaining a high clinical index of suspicion can lead to earlier diagnosis, allowing for more conservative treatments to be effective. Definitive management includes procedures such as gastrojejunostomy, duodenojejunostomy, and Strong's procedure.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 91 Category: Clinical Vignette

Program: McLaren Macomb
Program Director: Christopher Provenzano, MD
Presenter: Hind Neamah
Additional Authors: Hima Doppalapudi MD, Erika Singer, DO, Jonathan Markus MD, F.A.C.G.

Does H63D Heterozygosity Contribute to Drug-Induced Liver Injury?

Introduction:
The interaction between H63D mutation and drug induced liver injury (DILI) is unknown.

Case Presentation:
A 26-year old transgender woman on feminizing hormonal replacement therapy (HRT) presented with progressive abdominal pain associated with bilious vomiting without modifying factors. Examination was positive for jaundice, scleral icterus and tender right upper quadrant without hepatosplenomegaly, murphy sign, or lymphadenopathy. The patient had stable vital signs and negative imaging studies. Results showed elevated aspartate amino transferase (AST) 827, alanine amino transferase (ALT) 2010, alkaline phosphatase (ALP) 227, total bilirubin 6.80, prothrombin time 12.8, ferritin 2128.7, iron saturation 67%, and Epstein Barr virus immunoglobulin M titers of 1.3 (normal range 0.9-1.2). Acetaminophen level, viral and autoimmune panels, and 24-hour urine copper excretion were negative. HRT was discontinued, liver enzymes trended down, and the patient was discharged home. During outpatient evaluation, results were AST 219, ALT 510, ALP 122, total bilirubin 1.7, and the patient was positive for heterozygous H63D mutation.

Discussion:
H63D mutation is a significant disease modifier. It predisposes to heart failure,1 hypertension,2 liver cancer in cirrhotics,3 and other co-morbidities.1,2,4,5 There is paucity of literature addressing the relationship between H63D mutation and acute liver injury. We propose that the oxidative stress of iron overload on the hepatocytes coupled by the HRT contributed to acute liver injury in this case. Our case report is among a few that reported a similar pattern.6,7 Further research is required to explain the relationship between H63D allele and DILI.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 92 Category: Clinical Vignette

Program: McLaren Macomb
Program Director: Christopher Provenzano, MD
Presenter: Ronak Shah
Additional Authors: Dr. Frank A. Knechtl, DO (Attending Physician)

Hepatocellular Carcinoma with Lean-NASH Cirrhosis: Can it Really Happen?

Hepatocellular carcinoma (HCC) is the third most common cause of cancer-associated mortality worldwide. I present a case of an asymptomatic 54 yr old male with no prior risk factors, found to have a right liver lobe mass on routine abdominal ultrasound which on further investigation turned out to be primary HCC.

The ultrasound demonstrated a well-defined 8 cm vascular lesion with subsequent PET-CT showing a metabolically active lesion in segment VIII with extension into the 4A segment. CT guided biopsy of the liver revealed features of a moderately differentiated hepatocellular carcinoma and large areas of necrosis. Initially, the patient underwent portal vein embolization and TACE to help shrink the tumor burden. After 1 month, patient completed successful right hepatectomy and a caudate lobe lobectomy. However, 3 months post-hepatectomy, a routine surveillance of MRI chest/abdomen/pelvis showed new lesions in the remaining left lobe of the liver. There were no distant organ metastases and AFP level remained normal. Patient and his wife underwent a successful Swap Liver Transplant of right lobe graft with another Patient-Couple.

I present the above case because of the atypical nature of disease presentation and progression, it's dissociation with any risk factors and the histopathology report showing changes suggestive of NASH cirrhosis in a low-normal BMI patient. By presenting this case report, I strive to expand the knowledge of my fellow physicians regarding the concept of lean-NASH cirrhosis and its progression to HCC in an asymptomatic patient.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 93 Category: Clinical Vignette

Program: McLaren Macomb
Program Director: Christopher Provenzano, MD
Presenter: Arshia Vahabzadeh
Additional Authors: Thomas Bussineau DO, Andrew Staricco MD

DKA and Rhabdomyolysis Complicated by Legionella Pneumonia Leading to ARDS; Challenges in Treatment

A 47-year-old male with a history of insulin dependent diabetes mellitus was found down at home after an unknown period of time of up to two days. Initial labs were concerning for DKA and rhabdomyolysis. Following admission to the ICU with aggressive rehydration, normalization of glucose levels and attempted correction of electrolyte abnormalities, the patient continued to decompensate developing a decreased level of consciousness and acute respiratory distress. Chest x-ray was concerning for bilateral pneumonia. The patient was intubated and emergent dialysis was initiated for worsening hyperkalemia.

Additional diagnostic studies were performed including a urine legionella antigen. The patient was started on broad spectrum antibiotics, including levofloxacin. The patient remained anuric and exhibited worsening respiratory function despite ventilator optimization. Hypoxia continued to worsen and he suffered a cardiac arrest with ROSC. The patient was diagnosed with ARDS. A decision was made to transfer the patient to a tertiary care facility for ECMO evaluation. The patient was air lifted to an outside facility two hours later, however, expired shortly after arrival. The following day the urine legionella test resulted positive.

In this case, a patient presented with a combination of diabetic ketoacidosis, rhabdomyolysis, and legionella pneumonia leading to ARDS and subsequent death. Although legionella pneumonia does occur sporadically and can be severe, over the next few months, multiple other cases of legionella were reported in the regional area linked to an outbreak. Discussion will focus on the importance of following public health outbreaks and early criteria to initiate ECMO evaluation.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 94 Category: Clinical Vignette

Program: McLaren Oakland
Program Director: Ammar Hatahet, MD, FACP
Presenter: John Berquist
Additional Authors: Jeff Margolis, MD

Parathyroid Adenoma Presenting as Presumptive Breast Cancer Metastasis

A woman in her 7th decade of life with a history of triple positive ductal carcinoma in-situ of the breast treated with docetaxel, carboplatin, and trastuzumab for six cycles and one year of neratinib and trastuzumab presented for follow up for seven months of hypercalcemia. Her cancer treatment also included lumpectomy, radiation, a negative lymph node dissection, and letrozole during remission. Her serum calcium level was 10.8 mg/dl (8.7-10.3 mg/dl) and parathyroid hormone level was 279.2 pg/mL (12.0-72.0 pg/mL) for over six months. She developed a cough and underwent a CT Chest, which revealed an enlarged superior mediastinal lymph node measuring 3.0 x 3.5 x 4.2 cm. Presumed to be recurrence and a metastasis of the patient's breast cancer, the mass was biopsied, which revealed hypercellular parathyroid gland tissue without evidence of metastatic neoplasm.

Ductal carcinoma in-situ of the breast has a risk of lymphatic metastasis even after appropriate treatment and successful remission status. Thoracic and cervical lymph nodes are most commonly involved given their distribution and anatomy of the breast's lymphatic system. Ectopic parathyroid adenoma is a common cause of hypercalcemia and hyperparathyroidism; however, this patient's case is unique in that the adenoma was presumed to be metastasis of breast cancer and only visible on imaging. A key learning point is the need for biopsy of suspected malignancy and to consider ectopic production of parathyroid hormone in hypercalcemic states.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 95 Category: Clinical Vignette

Program: McLaren Oakland
Program Director: Ammar Hatahet, MD, FACP
Presenter: Sapna Kher
Additional Authors: Dr. Justin Bahoora, Dr. Richard Keirn, Dr. John Berquist

Angioedema Refractory to Standard Medical Management – The Use of Fresh Frozen Plasma in the Intensive Care Unit Setting

Angioedema is a localized swelling of deep skin layers or mucous membranes that mostly affects the face, periorbital area, lips, larynx, or gastrointestinal tract. Although self-limiting and transient, in some cases, angioedema can lead to fatal outcomes. One cause of fatal angioedema can occur from usage of angiotensin-converting enzyme inhibitors (ACEI). In such cases, fresh-frozen plasma (FFP) has been used off-label to help prevent deterioration of patients' conditions. We are reporting this case to widen treatment options for angioedema to help decrease the frequency of mechanical ventilation in patients with impending respiratory failure.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 96 Category: Clinical Vignette

Program: McLaren Oakland
Program Director: Ammar Hatahet, MD, FACP
Presenter: Hnin Lwin
Additional Authors: Hnin Lwin, M.D; Abdullah Bokhari, D.O.

Energy drinks and NSTEMI

Ischemic heart disease presents with a variety of symptoms from asymptomatic to chest pain at rest or following exertion. Recognizing presenting symptoms along with EKG changes and cardiac biomarkers can be crucial to prevent further damages.

A 33 yo male with no known medical history presented to the emergency department for acute chest pain that started an hour ago. Earlier that day, he drank eight monster energy drinks in order to prepare himself for the night shift His chest pain started shortly after an hour of consuming eight energy drinks. The pain was retrosternal, stabbing in nature with feelings of palpitations. The pain did not radiate. Pt had associated lightheadedness. EKG was abnormal with biphasic T waves in V1, LVH by voltage criteria. Troponin was positive at 0.060. He received Aspirin and sublingual Nitroglycerin which alleviated the pain. Pt was admitted for non-ST elevation myocardial infarction. Stress echo showed evidence for anterior myocardial ischemia. He was started on aspirin 81mg daily and nitroglycerin as needed. He was offered left heart catheterization. He was agreeable to catheterization but left against medical advice the next day.

Non-ST-elevation myocardial infarction (NSTEMI) can lead to irreversible damages to the myocardial tissue and is easily provoked in a healthy young adult by common lifestyle choices such as caffeinated drinks. Getting familiar with signs and symptoms of NSTEMI help inhibit complications associated with the disease.

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Resident/Fellow Poster # 97 Category: Clinical Vignette

Program: McLaren Oakland
Program Director: Ammar Hatahet, MD, FACP
Presenter: Riyadh Salih
Additional Authors: Salih,Riyadh MD, Zane,Maamuon MD, Alsyaied,Azim,DO, Stella, Muqaddam salim MD, fadi Alkhankan, MD

Mycoplasma Pneumoniae Induced Rash and Mucositis MRIM: A Challenging Disease Entity

Mycoplasma pneumonia is a leading cause of community-acquired pneumonia in healthy individuals >40 years. Mycoplasma pneumoniae-induced rash and mucositis (MRIM) is an extra-pulmonary manifestation of M. pneumonia infection and may present as mucosal lesions (e.g., ocular, oral, and urogenital) or as a combination of mucosal and minimal cutaneous lesions. MRIM was coined in 2016 as a rare entity that distinguishes from the spectrum of erythema multiforme (EM) major and Stevens-Johnson syndrome (SJS). We present a 24-year-old man who presented with pneumonia and classical clinical manifestations of MRIM ((Diffuse oral mucositis with significant sores in lips, tongue, mucositis extends to the posterior oropharynx. Bilateral conjunctivitis, and otitis media with perforated left tympanic membrane, urogenital sores, and strongly positive M. pneumonia clinical and laboratory results. The patient was treated with antimicrobial and supportive therapy and had an uneventful recovery. This case highlights a challenging, rare presentation of MIRM in a young adult with diffuse mucositis involving oral, ocular, ear and urethral sparing skin

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 98 Category: Clinical Vignette

Program: McLaren Oakland
Program Director: Ammar Hatahet, MD, FACP
Presenter: Adeeb Sebai
Additional Authors: Adeeb Sebai, John Berquist, Dr. Jeff Mason

Pleural Effusion Due to Malnutrition in Anorexia

Anorexia and its variants are defined by persistent change of eating behavior including significant restrictive measures of caloric intake or by binging and then purging when patients have excessive concerns about body shape and weight (Gravina et al., 2018). Anorexia can result in major medical complications that can be life threatening. When bilateral pleural effusion is encountered in clinical practice, two predominant causes are heart failure and neoplasm (Ferreiro et al., 2016). We report a rare case of anorexia resulting in bilateral presentation of pleural effusion.

A 22 year old female presented to our facility after falling and fracturing her left femur. She has a known history of anorexia with eight reported hospitalizations, including for refeeding syndrome. At presentation, she was extremely cachectic with a BMI of 12.9 and appeared extremely malnourished. On the 13th day of hospital stay, she was found to have oxygen saturation of 70%. She reported her breathing to be worsening and a non-rebreather mask improved her symptoms. A chest x-ray and CTA chest were negative for pulmonary embolism but showed bilateral pulmonary effusions and consolidations. She underwent thoracentesis and suffered bilateral pneumothoraces from the procedures and ultimately needed to be intubated. Pleural fluid analysis showed transudative fluid. A prior echocardiogram showed normal ejection fraction and diastolic function. Her effusions are likely due to hypoalbuminemia and malnourishment with a goal to restore her nutritional status.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 99 Category: Research

Program: McLaren Regional Medical Center/MSU – Flint
Program Director: Parul Sud, MBBS, FACP
Presenter: Nischit Baral
Additional Authors: Abhushan Poudyal, Shashi Sigdel, Prem Raj Parajuli, Sreeram Yalamanchili, Amit Bansal

Inspiratory MuscleTtraining in Patients with Heart Failure with Preserved Ejection Fraction. A Systematic Review and Meta-Analysis

Background: Heart failure with preserved ejection fraction (HFpEF) is a growing problem in the developed world especially in the aging population with no clear evidence of effective treatment. Objective: To shed some light on the role of Inspiratory muscle training (IMT) in HFpEF.

Methods: We conducted a systematic literature search for English studies in PubMed, EMBASE and Cochrane Central Register of Controlled Trials. We searched databases using terms relating to or describing breathing exercise, inspiratory muscle training, tai chi breathing and HFpEF. RevMan 5.4 was used for data analysis and two independent investigators performed literature retrieval and data extraction.

Results: We identified 3 Randomized Controlled Trials (RCTs) and 1 Prospective study on the role of IMT and TC in HFpEF. We calculated the pooled mean difference of peak oxygen consumption, 6-min walk test (6MWT) and Minnesota Living with Heart Failure questionnaire score between the IMT and TC group and Usual care group. Our meta-analysis showed that compared with usual care IMT and TC could significantly improve peak oxygen consumption (MD=3.04, 95% CI [1.94, 4.15] P < 0.00001), improve 6-min walk time in meters (MD=83.97, 95% CI [59.18, 108.76] P< 0.00001) and decrease Minnesota Living with Heart Failure Questionnaire (MLHFQ) Score to improve Quality of Life (MD= -13.10 95% CI [-19.60, -6.60] P < 0.0001) Conclusion: IMT should be further studied as a possible treatment option for patients with stable HFpEF.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 100 Category: Clinical Vignette

Program: McLaren Regional Medical Center/MSU – Flint
Program Director: Parul Sud, MBBS, FACP
Presenter: Emad Kandah
Additional Authors: Atefeh Kalantary, Nouraldeen Manasrah, Rebecca Pratiti

The value of Screening for Bicuspid Aortic Valve in First Degree Family Members

Introduction: Bicuspid aortic valve (BAV) is a commonly diagnosed adult congenital abnormality affecting 1% of the population. BAV is a risk factor for aortic stenosis, regurgitation, infective endocarditis, thoracic aortic aneurysm (TAA), and dissection with its associated significant morbidity and mortality. BAV shows some genetic components with an autosomal dominant pattern, incomplete penetrance, and variable expressivity.

Case presentation: A 54 -year-old male with history of hypertension, diabetes, and sleep apnea presented for 2 weeks dyspnea with bilateral leg edema. Initial workup showed elevated troponin at 0.15, BNP of 720, and hyponatremia. Chest x-ray revealed lungs infiltrates with possible community-acquired pneumonia (CAP). EKG showed sinus tachycardia and septal lead's ST depression. He received diuretics and antibiotics for CAP and fluid overload. Blood culture showed staphylococcus aureus. Transthoracic echocardiogram revealed BAV though no vegetations. Transesophageal echocardiogram demonstrated the BAV, 1.4 cm mobile vegetation, an abscess on aortic annulus, severe aortic regurgitation, and 4.6 cm ascending aortic aneurysm. Heart catheterization showed a single-vessel disease. He underwent aortic valve replacement, ascending aortoplasty and CABG. He was discharged home on home health to complete antibiotics after good recovery. His son was diagnosed with BAV earlier. Consequently, by screening echocardiogram and education; our patient could have avoided complications of severe infective endocarditis.

Conclusion: 15% of first-degree relatives (FDR) of BAV patients have BAV on screening with 1-2% requiring immediate surgery for TAA. Most have cardiac intervention by fifth decade. Hence guidelines recommend screening FDR of BAV. This case illustrates the value of screening prior to complications.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 101 Category: Clinical Vignette

Program: Mercy Health – Grand Rapids
Program Director: Bryan Hull, MD, FACP
Presenter: Murtaza Ali
Additional Authors: Shahroz Adil, MD; Brian Stewart, MD

Plasmacytoid Urothelial Ca with Illeal Metastasis; A Rare Case of SBO

Plasmacytoid urothelial carcinoma (PUC) is a rare and aggressive variant of urothelial cancer, which carries a very poor prognosis. It has a predilection for contiguous intraperitoneal metastasis. It is often misdiagnosed initially as the biopsy findings are confused with plasmacytoma or lymphomas.

We report a case of a 65-year-old female patient who was initially diagnosed with urothelial bladder Carcinoma (Ca). Staging computed tomographic scan (CT) prior to the surgery did not reveal any metastasis. Patient underwent surgical resection of disease with clear margins followed by an early terminated Neoadjuvant chemotherapy due to poor tolerance. About 6 weeks after the surgical resection, the patient presented with abdominal pain and shortness of breath. She was diagnosed with small bowel obstruction (SBO) and bilateral pulmonary embolism. Small Bowel follow-through (SBFT) demonstrated partial SBO. After failed conservative therapy for SBO, the patient underwent diagnostic laparoscopy and was found to have ileal stricture measuring roughly 3 cm. The patient underwent 6cm ileal resection involving the stricture. The histopathology of the stricture revealed metastatic urothelial carcinoma with plasmacytoid features. Due to post-surgical complications, the patient necessitated further surgery, however, she declined and opted for comfort care.

We hereby present a rare tumor with metastasis to ileum leading to small bowel obstruction. To the best of our knowledge, this is the first reported case of PUC with metastasis to ileum presenting as SBO. Clinicians should always consider metastasis as a potential cause of intestinal obstruction in patients with a history of cancer.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 102 Category: Clinical Vignette

Program: Mercy Health – Grand Rapids
Program Director: Bryan Hull, MD, FACP
Presenter: Michael Davis
Additional Authors: Emily Mitchell, Nasir Khan, MD

A Case of an Ochrobactrum Anthropi Bloodstream Infection in a Neutropenic Patient with a Chronic PICC Line

Ochrobactrum anthropi is an aerobic gram-negative bacillus that is a rare cause of infection and therefore has limited data regarding its diagnosis and treatment. Several case reports have shown that patients who are immunosuppressed and have central venous catheters are more susceptible to infection. Antibiotic susceptibilities to infection have been variable; however, O. anthropi has generally been found to be susceptible to gentamicin, fluoroquinolones, trimethoprim-sulfamethoxazole, and colisitin. O. anthropi has been shown to be widely resistant to β-lactam antibiotics.

The patient is a 31-year-old female with a history of mast cell activation syndrome, Ehlers Danlos syndrome type 3, POTS, and chronic PICC line for IV hydration who presented to the hospital with a two-week history of nonspecific joint pains and a one-day history of subjective fevers, headache, and diarrhea. The patient was found to be neutropenic with an ANC of 700 cells/microL and have a temperature of 100.1F on admission. Blood cultures were obtained from her PICC line and peripherally. She was treated empirically with cefepime and her PICC line was removed. Both blood cultures grew O. anthropi as identified by MALDITOF in the aerobic bottle with susceptibilities showing resistance to piperacillin-tazobactam and being susceptible to cefepime, ciprofloxacin, gentamicin, meropenem, tobramycin, and trimethoprim-sulfamethoxazole. The patient was treated with a seven-day total course of cefepime which saw resolution of her bacteremia and neutropenia.

This case demonstrates a PICC line associated O. anthropi bloodstream infection which showed successful treatment with a short seven-day course of cefepime without complication.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 103 Category: Clinical Vignette

Program: Mercy Health – Grand Rapids
Program Director: Bryan Hull, MD, FACP
Presenter: Andrea Khlevnoy
Additional Authors: Vincent Ngo, MD, Diana Gemanaru, MD, Byoungchul Kim, MD, Brian Stewart, MD

A Rare Case of Tumefactive Multiple Sclerosis Presenting as Left Hemiparesis

Tumefactive multiple sclerosis (TMS) is a rare variant of multiple sclerosis (MS) which is diagnostic and therapeutically challenging as it can mimic features of neoplasm, infarction or abscess. This report highlights a rare case of TDL which presented with stroke like symptoms & imaging suggestive of metastatic disease.

A 45-year-old female with history of bipolar disorder, chronic migraines and polysubstance abuse presented with left sided weakness and facial droop. 2 weeks earlier she was evaluated after a motor vehicle accident where a CT head showed multifocal areas of hypodensity within the white matter bilaterally (right >left), MRI was recommended however, she left against medical advice. She was subsequently admitted for left hemiparesis & CT head demonstrating worsening vasogenic edema concerning for primary CNS neoplasm, metastasis or abscess. Work up for other etiologies such as MS mimickers, infection, stroke and neoplasm were negative. Ultimately, a MRI was completed which showed multiple supratentorial lesions involving the cerebral white matter with concentric enhancement, suggestive of atypical demyelinating process such as TMS. She was started on high dose steroids for a total of 5 days with a good response.

The incidence of TMS is estimated to be 1 per 1000 MS cases with an even rarer annual incidence of 3 per million. Patients who suffer from TMS are at risk of delayed diagnosis and treatment or are often subjected to unnecessary treatments and lengthy diagnostic workups. Thus, it is critical to remain vigilant for TMS when a young patient presents with a neurological sequela.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 104 Category: Clinical Vignette

Program: Mercy Health – Grand Rapids
Program Director: Bryan Hull, MD, FACP
Presenter: Iman Qaiser
Additional Authors: Rija Alvi, Azam Tolla, Audrey Sanders, Nicholas Schneider

Ill-Fitting Dentures Causing Copper Myeloneuropathy

A 57 year old female with a history of chronic alcohol abuse, anorexia nervosa and bipolar disorder presented for a several month history of gait ataxia with significant bilateral lower extremity paresthesias, worsened to the point of wheelchair dependence. On examination, she was diffusely hyperreflexic with lower extremity weakness more pronounced in the proximal muscles. Sensations to pinprick, temperature and vibration were decreased in both feet up to the level of both knees. Electromyogram and imaging provided no evidence of large peripheral neuropathy or disc related nerve impingement. Infectious, autoimmune and paraneoplastic causes were also ruled out with workup. Eventually, she was found to have elevated zinc and decreased copper and ceruloplasmin levels. It was then discovered that she had been using 1 tube per week of Fixodent, a denture adhesive which contains zinc. Her copper myeloneuropathy was treated with copper supplementation and replacement of denture cream with a non-zinc containing formulation.

Due to the rarity of the disease, the prevalence of copper deficiency is unknown. Gastric bypass is a well-known cause, documenting hypocupremia in 10 – 70% of patients who underwent the surgery. Hyperzincenemia is another known cause. Zinc competes with copper for absorption in the small intestine. Recently, zinc toxicity due to over use of zinc-containing denture adhesive creams in ill-fitting dentures has been noticed, resulting in copper myeloneuropathy, anemia and neutropenia. Zinc toxicity induced copper deficiency should be kept in the differential when working up paresthesias in a patient who uses dentures.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 105 Category: Clinical Vignette

Program: Michigan State University - East Lansing
Program Director: Supratik Rayamajhi, MD, FACP
Presenter: Priyal Agarwal
Additional Authors: Osama Mosalem, Thamer Almaki, Merryl Varghese, Richa Tikaria

Non- Axial Metastases of Malignant Melanoma

Background: Metastatic Melanoma is known for its aggressive nature and for its ability to metastasize. Bony metastates are lytic lesions which most commonly involve the axial skeleton. The objective of this clinical case report is to highlight unusual non- axial metastases seen with malignant melanoma, which is associated with poor prognosis.

Case Presentation: A 45-year-old Caucasian female, with no past medical history, presented to the emergency department with acute non- traumatic left hip pain and inability to bear weight on left lower extremity. Examination showed a 1.5x1cm nodular red-purple lesion in the left buccal area and a 3x3cm nodular subcutaneous lesion present on the upper back. Left lower extremity was shortened and abducted. Xray showed left inter-trochanteric fracture. Due to suspicion of fracture being pathological secondary to underlying metastatic processs, a bone scan was done. Bone scan showed multiple hot spots suggesting widespread metastatic disease with lesion involving the distal right femoral diaphysis. Melanoma with BRAF V600 mutation was confirmed on histopathology/molecular testing. Patient was started on BRAF kinase inhibitor and MEK inhibitor. The patient did not improve and died during the course of hospitalization.

Conclusion: Malignant Melanoma usually metastasizes to the regional lymph nodes, lungs, brain and axial skeleton. A non-axial pattern of metastasis in melanoma is rare and reflects the very late presentation and poor prognosis of the disease.

Keywords:
Melanoma; Skeletal metastasis; oncology; dermatology; Cancer treatment; targeted therapy; Mortality

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 106 Category: Research

Program: Michigan State University - East Lansing
Program Director: Supratik Rayamajhi, MD, FACP
Presenter: Ahmed Elshafie
Additional Authors: Abdullah Al-abcha, MD, Christopher C. Garces MD, Osama Mosalem MD, George Abela, MD(Prof. of Medicine, Division of Cardiology)

A Meta-Analysis of the Long-term Outcomes of Intravascular Ultrasound-Guided Versus Angiography-Guided Stent Implantation

Background Intravascular ultrasound (IVUS) offers a superior visual assessment of coronary plaques compared to conventional angiography. Trials have shown improved short-term outcomes in IVUS-guided versus angiography-guided stent implantation. However, there is limited literature about the long-term outcomes of its use.

Methods: We conducted a meta-analysis of randomized clinical trials (RCTs) that compared IVUS-guided vs angiography-guided stent implantation in different types of complex coronary lesions. We only included trials with follow up duration of at least 2 years. The primary outcome was major adverse cardiovascular events (MACE). Secondary outcomes included the risk of TLR, cardiac death, MI, and risk of stent thrombosis.

Results: Four RCTs with a total of 2,037 patients were included. The median-weighted follow up period was 3.8 years. One trial included patients with different types of complex coronary lesions, one trial only included long coronary lesions, another included left main lesions, and the last included only chronic total occlusions. Heterogeneity was low across the trials (0-18%). MACE was significantly lower in the IVUS group, as well as cardiac death, and target-lesion revascularization (TLR) (Figure). The risks of MI and stent thrombosis were not significantly different between the two groups (Figure).

Conclusion: IVUS-guided stent implantation has lower long-term MACE and cardiac death compared to angiography-guided implantation in patients with different types of complex coronary lesions despite similar risks of MI. Further RCTs are needed for each type of these complex lesions.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 107 Category: Research

Program: Michigan State University - East Lansing
Program Director: Supratik Rayamajhi, MD, FACP
Presenter: Christopher Garces
Additional Authors: Jairus Flores, Ahmed Elshafie, Supratik Rayamajhi

Combined Renal Denervation & Pulmonary Vein Isolation in Atrial Fibrillation Recurrence in Drug-Resistant HTN: Meta-analysis

Background:
Atrial Fibrillation (AF) is the most common cardiac arrhythmia and hypertension is the most common risk factor associated with AF. The addition of renal sympathetic nerve denervation (RSDN) to pulmonary vein isolation (PVI) in AF patients with hypertension has been reported to improve clinical outcomes.

Methods:
A systematic search was done without language restriction up until March 30, 2020. Studies on patients with AF and drug-resistant hypertension that compared RSDN with PVI vs PVI-alone were included. Risk ratio (RR) for categorical variables was used.

Results:
4 eligible studies, all randomized controlled trials, with a total of 252 patients were included. Patients were distributed equally to both arms. 144 patients had paroxysmal AF (57%) while 108 patients had persistent AF (43%). At 12 months follow-up, RSDN+PVI significantly decreased the overall risk of AF recurrence in drug-resistant hypertensive patients with RR 0.61 [95% CI 0.47 to 0.79,p=0.0002]. There was no reported decline in eGFR or renal issues observed in patients who underwent RSDN. There was no significant difference in complications between the two groups.

Conclusion:
In patients with drug-resistant hypertension, the addition of RSDN to PVI in patients with AF appears safe and decreases AF recurrence at 12 months follow-up.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 108 Category: Clinical Vignette

Program: Michigan State University - East Lansing
Program Director: Supratik Rayamajhi, MD, FACP
Presenter: Nora Hernandez Garcilazo
Additional Authors: Maham Khan MD, James Choi DO, Shaza Khan MD

Acute Pancreatitis Caused by Scombroid Poisoning

Scombroid poisoning, the most common seafood-borne illness in the USA, presents following consumption of inadequately stored fish containing high levels of histamine. It presents as an anaphylactic reaction with symptoms of bronchospasm, flushing, dyspnea, hypotension, and urticaria. Supportive treatment is the mainstay management unless complicated by respiratory distress.

61-year-old female with a medical history of untreated Hepatitis C, presented after scombroid poisoning from Mahi-Mahi. She had severe abdominal pain, generalized rash, flushing, lip swelling, and shortness of breath twenty minutes after ingesting the fish. Patient presented to urgent care and was treated with zofran, solumedrol, benadryl and pepcid. She was sent home with the resolution of symptoms. Later, she had several episodes of non-bloody emesis and severe epigastric pain, prompting her to present to the ED. CT abdomen showed diffuse peripancreatic inflammatory fat stranding, compatible with acute pancreatitis, lipase 4513, and liver function tests within normal limits. Management was conservative with pain control and IV fluids. MRCP was performed which demonstrated a distended gallbladder with cholelithiasis, without evidence of biliary obstruction or choledocholithiasis. General Surgery was consulted and recommended elective cholecystectomy at a later date. Patient’s diet was advanced, pain resolved, and the patient was discharged home.

This patient developed acute pancreatitis a few hours after having a scombroid reaction. Although this is not a widely known cause of pancreatitis, the inadvertent ingestion of toxic levels of histamine, through its potent vasodilator effect can cause obstruction of the ampulla of Vater, producing inappropriate activation of pancreatic enzymes causing pancreatitis.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 109 Category: Clinical Vignette

Program: Michigan State University - East Lansing
Program Director: Supratik Rayamajhi, MD, FACP
Presenter: Maham Khan
Additional Authors: Merryl Varghese MD, Nadine El-Ayache DO, Allison Keel DO

Ischemic Colitis After a Turkey Trot

Ischemic colitis is unusual in young otherwise healthy adults. In an acute setting it presents as a result of hypoperfusion or thrombosis. A definite diagnosis is established by tissue biopsy and histology.

26 year old male with a medical history of retinal migraines, and hypertension presented with complaints of near syncope with bloody diarrhea. The patient described that he was straining on the toilet, when he became very lightheaded, diaphoretic, nauseous and weak. He then developed bloody diarrhea. He had up to eight bowel movements, filling the toilet with blood. Labs were remarkable for Hemoglobin 16 g/dl, Calprotectin greater than 1000 mcg/g and Lactic Acid 2.1 mmol/l. Stool studies including enteric pathogens, ova and parasites were negative. CT angiogram abdomen and pelvis showed no active GI bleed or arterial abnormality. A colonoscopy was performed which showed moderately severe ischemic colitis of the sigmoid colon. Biopsies taken showed ischemic colitis, with resulting acute inflammation, negative for adenoma or neoplasm. Hypercoagulable work up was negative, but on further inquiry, the patient confirmed that he had run a Turkey Trot (5K) two days prior to the onset of sym ptoms. He received supportive treatment with IV fluids, made an uneventful recovery and was discharged for outpatient follow up.

This case demonstrates that while exercise induced ischemic colitis is rare it should be considered in young patients presenting with hematochezia following strenuous exercise. Ischemia occurs due to a catecholamine surge, resulting in vasoconstriction of splanchnic circulation and shunting of blood to skeletal muscles.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 110 Category: Clinical Vignette

Program: Michigan State University - East Lansing
Program Director: Supratik Rayamajhi, MD, FACP
Presenter: Yasser Radwan
Additional Authors: Osama Mosalem, MD; Ahmed Elshafie, MD

A Case of DVT and Bilateral PE as Initial Presentation of Metastatic Cancer

Introduction:
Patients with cancer are at high risk of developing venous thromboembolism (VTE) due to a hypercoagulable state.

Case:
A 79-year-old patient presented to the hospital with painful swelling of the left leg status post corneal surgery three weeks prior. He was hypoxic and required 2 liters of oxygen. On exam, it was noted that he was cachectic and had hepatomegaly. Imaging studies revealed VTE of the entire deep venous system of the left leg and bilateral acute pulmonary emboli. Abdominal CT scan showed a pancreatic body mass most compatible with pancreatic adenocarcinoma, and multiple metastatic masses in the liver, spleen, and spinous process. He was previously not known to have a diagnosis of cancer. CEA 1,274, CA19-9 4.2 million. Liver biopsy confirmed adenocarcinoma. Vascular surgery determined the patient was not a thrombolysis or embolectomy candidate. He was immediately started on Heparin drip for 48 hours before he was transitioned to Apixaban. The patient was discharged home once he was vitally stable and told to follow-up as an outpatient with oncology.

Discussion:
Pancreatic cancer is associated with the highest rates of VTE among cancers and is the second most common malignancy diagnosed at the same time as VTE. Immediate initiation of anticoagulation decreases the risk of mortality of VTEs. As VTEs might be the initial manifestation of underlying malignancy, patients with VTEs should be carefully, selectively, but not routinely screened for underlying malignancy via an age-appropriate approach.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 111 Category: Clinical Vignette

Program: Michigan State University - East Lansing
Program Director: Supratik Rayamajhi, MD, FACP
Presenter: Merryl Varghese
Additional Authors: Shilpa Kavuturu, Osama Mosalem, Priyal Agarwal

Acute Leukemia in Pregnancy

Background: Leukemia in pregnancy is rare, with prevalence of 1 in 75,000-100,000 pregnancies. Earlier termination of pregnancy was the only option, but now with modern medicine, chemotherapy in pregnancy is done whenever possible. We are reporting our experience with leukemia in pregnancy and how it was managed.

Case Report: 36yr old female at 36 weeks of gestation who came in for evaluation of swelling and pain on her neck. On examination was found to have significant regional lymphadenopathy in the head and neck region. Labs were significant for WBC 478.0 x 103/uL with manual differential having 96% blast cell, platelet 20.0 x 103/uL, hemoglobin 11. 0 gm/dL, with potassium 9.5 meq/L and uric acid of 17.6 mg/dL. Peripheral blood flow cytometry confirmed the diagnosis of T cell lymphoblastic leukemia. Leukopheresis was done to bring down her WBC to 210.0 x 103 / uL, She was showing signs of tumor lysis syndrome so started her on steroids and rasburicase. She underwent cesarean section for fetal distress. The placenta on exam showed presence of immature T cells, consistent with maternal leukemia. Patient was treated with cyclophosphamide, daunorubicin, vincristine and L-asparginase

Conclusion: Management of leukemia pregnant patients depends on the time of gestation, second trimester is considered the safest for chemotherapy. Initially intervention depends of the hyper leukocytosis which is done by leukopheresis especially if complication with hyper viscosity is suspected. Steroids also help in giving time to induce labor and thus deliver the baby.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 112 Category: Clinical Vignette

Program: Spectrum Health/MSU – Grand Rapids
Program Director: Talawnda Bragg, MD, FACP
Presenter: Ronak Chhaya
Additional Authors: Umair Ahmed, MD

Hemoptysis: An Increasingly Rare Cause

Introduction: Broncholiths are calcified material rarely found in the tracheobronchial tree. Associations include calcified parabronchial lymph nodes and various granulomatous and fungal diseases. They may cause erosion into the bronchial lumen, leading to hemoptysis. Most can be removed with bronchoscopy. Surgical resection is indicated for recurrent or massive hemoptysis. We present the case of a patient found to have broncholithasis.

Case Summary:
62 year old male non-smoker presented with two isolated episodes of hemoptysis. Medical history includes chronic left upper lobe calcified granuloma and remote testicular cancer treated with radiation. Family history includes lung cancer and latent tuberculosis. Patient denied travel exposures. CT angiogram of the thorax showed abnormal parenchyma in the left upper lobe consistent with alveolar hemorrhage. Bronchoscopy revealed left upper lobe oozing broncholith with airway obstruction, which could not be removed. He was managed initially with inhaled tranexamic acid with symptom cessation. Readmission was required prior to routine follow up due to recurrence of hemoptysis. Left upper lobectomy was performed, complicated by small pneumothorax. His hemoptysis subsequently resolved.

Conclusion:
Hemoptysis is a clinical presentation provoking suspicion for lung cancer or tuberculosis. A rare cause of hemoptysis is broncholithasis, which may be suspected in a patient with a history of calcified granulomatous disease. This can be evaluated for by bronchoscopy, with most patients avoiding surgical intervention.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 113 Category: Clinical Vignette

Program: Spectrum Health/MSU – Grand Rapids
Program Director: Talawnda Bragg, MD, FACP
Presenter: Joshua Donkin
Additional Authors: Vetriselvi Moorthy, MD, Jorgelina T. de Sanctis, MD

COVID 19 Infection in a Lung Transplant Recipient

COVID 19 infection is a primarily respiratory illness with a variable course tending to be more severe in patients with medical comorbidities. It is still unclear how solid organ transplantation effects the presentation, severity, and clinical sequelae of COVID 19 infection, although some initial data suggests increased risk of poor outcomes in this population. Lung transplantation may represent a unique risk factor in COVID 19 illness due to the direct damage caused to the lungs and the chronic immunosuppression the patients require following transplant. We report a case of a 63-year-old female who received right single lung transplant four years prior to presentation with SARS-CoV 2 viral pneumonia. The patient presented after three days of progressive dry cough, fever, myalgias, fatigue, and dyspnea with known COVID 19 exposure. The patient was admitted for treatment and her condition rapidly deteriorated after hospitalization requiring intubation and prolonged intensive care unit stay. Treatment course was further complicated by the development of acute respiratory distress syndrome, retroperitoneal bleed, critical illness myopathy, toxic metabolic encephalopathy, and a severe reduction in functional status requiring extensive rehabilitation following hospitalization. The patient's COVID 19 specific pharmacologic therapy included hydroxychloroquine, azithromycin, and anakinra. In the intensive care unit, the patient was treated for acute respiratory distress syndrome with lung protective ventilation, prone positioning, and stress dose steroids. The patient was eventually extubated but despite two months of rehabilitation continues to have increase oxygen requirement and decreased functional status when compared to before her COVID 19 infection.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 114 Category: Clinical Vignette

Program: Spectrum Health/MSU – Grand Rapids
Program Director: Talawnda Bragg, MD, FACP
Presenter: Rebecca Emery
Additional Authors: Anacleto B. Diaz, MD

Drug-Induced Lupus in a Patient Presenting as Presumptive COVID-19 Infection

Drug-induced lupus erythematosus (DILE) is a condition due to adverse medication reaction which could cause serious morbidity, with an estimated 15,000-30,000 cases in the United States annually. The diagnosis is often missed and requires an elevated index of suspicion in patients who take medications associated with this condition. We report a case of DILE in a patient who presented as presumed COVID-19 infection.

A 76 year old male with history of hypertension and cardiomyopathy presented with fever, cough and shortness of breath over 3 weeks. He had several emergency room visits with documented elevated ESR, CRP and d-dimer levels. Patient was diagnosed with presumptive COVID-19 but had 3 separate negative COVID-19 PCR studies. He later developed pleuritis, pericarditis and polyarthritis but no rashes. Patient had autoimmune work-up which was positive for anti-nuclear antibody but had negative anti-dsDNA, anti-Smith, anti-SSA, and anti-ribonucleoprotein antibodies. Patient took hydralazine for his hypertension and cardiomyopathy so DILE was suspected. Anti-histone antibody was strongly positive. He had significant improvement of his symptoms after discontinuation of hydralazine and tapering course of prednisone.

DILE should be suspected in patients who take associated medications presenting with lupus like symptoms. This has been challenging during this pandemic as providers often focus on presumptive COVID-19 infection especially when laboratory studies suggest inflammatory or infectious condition. Our case demonstrates the need to continue to expand differential diagnosis and have elevated index of suspicious for other potentially serious conditions such as
DILE during this pandemic.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 115 Category: Clinical Vignette

Program: Spectrum Health/MSU – Grand Rapids
Program Director: Talawnda Bragg, MD, FACP
Presenter: Connor Kerndt
Additional Authors: Mohammad Umar Ahmed, Stephen Rivard, Andrea Hadley

Thoracic Aortic Aneurysm, an Atypical Etiologic Cause of Pneumonia

Introduction:
Thoracic aortic aneurysms are full vessel dilations of the thoracic aorta and are estimated to inflict 5-10 cases per 100,000 patient years. Most aneurysms are detected incidentally, however some patients exhibit symptoms secondary to compression of nearby structures. We present an exceptional case of post-obstructive pneumonia secondary to compression of the lung by a thoracic aortic aneurysm.

Case Presentation:
A 72-year old man with history of AAA requiring aortobiliac stenting, four-vessel CABG, severe COPD, and known thoracic aortic aneurysm presented with pleuritic chest pain, shortness of breath, and productive cough. On presentation, BP was 186/94, respiratory rate was 28, and heart rate was 117.

WBC was 14.4. Chest X-ray demonstrated consolidation in the left lower lung. CT showed a thoracic aortic aneurysm of 8cm causing mediastinal shift. This was enlarged from 6cm in 2017. He was treated for post-obstructive pneumonia with IV cefepime and azithromcyin. Blood pressure was aggressively lowered to a goal of 120/80. Vascular surgery was consulted and planned for endovascular repair, as patient is a poor surgical candidate due to comorbidities.

Discussion:
This remarkable presentation reminds us that pneumonia can arise from a myriad of etiologies. Post-obstructive pneumonia, while typically caused by malignancy, can occur from compression of the lung by nearby structures such as the aorta. Patients with recurrent or prolonged pneumonia may benefit from CT to rule out obstructive etiologies. Further, this case reaffirms the importance of aortic aneurysm surveillance for risk of rupture and compression of surrounding structures.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 116 Category: Clinical Vignette

Program: Spectrum Health/MSU – Grand Rapids
Program Director: Talawnda Bragg, MD, FACP
Presenter: Jay Patel
Additional Authors: Eiad Habiba MS-IV, Connor Kerndt, D.O ; Dan Summers M.D ; TaLawnda Bragg M.D

Paraneoplastic Psychosis, Ovarian Teratoma Causing NMDA Encephalitis

Introduction:
NMDAR Encephalitis occurs when antibodies are created against NDMA receptors, most commonly secondary to an autoimmune or paraneoplastic syndrome. The antagonism of cerebral NDMA receptors disrupts normal brain activity causing acute onset psychological disturbance including mania, psychosis, or anxiety.

Case Presentation:
A 25-year-old female with previous past-medical history of depression presented with drastic mood lability causing paroxysms of laughing, agitation, and crying. Routine labs performed prior to arrival were unremarkable, however a pelvic ultrasound revealed the presence of a left adnexal mass.
Upon presentation, the patient was vitally stable but completely unresponsive to voice or sternal rub. Neurologic examination was significant for 2+ reflexes, mild tremor in the upper extremities bilaterally, and motor control of extremities when released from height. CT-scan exhibited left adnexal 7.8 cm mass. An urgent laparoscopic salpingo-oophorectomy demonstrated a high grade immature ovarian teratoma.
MRI and Lumbar puncture initially revealed no etiology for her neuropsychiatric compromise. Anti-NMDAR antibody testing of CSF was positive therefore confirming Anti-NMDAR encephalitis. Treatment with IVIG, plasma exchange, and corticosteroids over three weeks resulted in increased mentation, alertness, and neuro-psychiatric resolution.

Discussion:
This paraneoplastic syndrome has gained increased recognition and has the potential for lethal neuromotor dysfunction especially in the young population. This case warrants us to keep our suspicion high for anti-NMDAR encephalitis when an individual without a prior psychiatric history presents with acute psychosis, especially in the setting of an ovarian mass, as prognosis becomes favorable following removal.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 117 Category: Clinical Vignette

Program: St. Joseph Mercy - Ann Arbor
Program Director: Patricia McNally, MD, FACP
Presenter: Niranjana Chellappa
Additional Authors: Wade Jodeh, Rebecca Daniel, Irina Burman

No Laughing Matter

Nitrous oxide (N2O) is well known for its use in anesthesia. It has also become increasingly popular for recreational use, for its quick, transient “high”. This however, can have detrimental neurological and hematological complications. N2O interferes with methionine and folate metabolism, inhibiting myelin synthesis and disrupting hematopoiesis. This ultimately manifests as megaloblastic anemia and/or subacute degeneration of the cord. We present the cases of two patients with neurological deficits following N2O use.

The first is a 35 year old female with no significant comorbidities. She presented with acute painful paresthesias in a “stocking and glove” pattern of 5 days’ duration. There was no concern for diabetes and she only consumed alcohol sporadically. An MRI of the spine demonstrated abnormal hyperintensity in the gray matter of the cervical cord, consistent with N2O toxicity. Our patient did admit to recreational N2O use 13 days prior.

Our second patient, a 43 year old male, with well controlled diabetes, remote alcohol and polysubstance use, presented with two days of severe painful paresthesias. This involved the entire body below the neck, with dorsal column deficits on examination. He admitted to use of N2O for 10 days a few weeks prior to presentation. He declined any imaging or invasive investigations.

Lab tests in both patients revealed impressively elevated methylmalonic acid levels, whereas B12 levels were normal in patient 1 and low in patient 2. Both patients were treated with parenteral administration of vitamin B12, with gradual improvement in symptoms over the course of several weeks.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 118 Category: Clinical Vignette

Program: St. Joseph Mercy - Ann Arbor
Program Director: Patricia McNally, MD, FACP
Presenter: Aditee Dash
Additional Authors: Rajasekhar Jagarlamudi

Rare Case of Neisseria Mucosa Bacteremia in an Immunocompromised Patient

Infliximab is a Tumor Necrosis Factor-alpha inhibitor. Durvalumab is a monoclonal antibody against cytotoxic T lymphocyte associated protein 4.They lower the body's immunity. Neisseria mucosa/sicca is a commensal oral bacteria which is rarely recognised to be an infectious agent, in immunocompromised patients.

68 year old man, with history of interstitial lung disease(ILD), squamous cell carcinoma of the lung status post radiation therapy and chemotherapy, currently on immunotherapy with infliximab and durvalumab, recent diagnosis of pulmonary embolism(PE) on Eliquis, presented with progressive dyspnea over several days associated with wheezing and cough with expectoration of clots.

On physical examination patient was afebrile, tachycardic, tachypneic with laboured breathing and decreased air entry bilaterally on auscultation. Laboratory testing were significant for leukocytosis of 14,000/mcL, elevated lactate at 2.9 mEq/L. Blood cultures were drawn. Cefepime and Azithromycin were initiated.

Chest CT scan revealed chronic pulmonary embolism, worsening of interstitial lung disease with no evidence of consolidation. On the third day of admission, patient's blood cultures came back positive for Neisseria sicca/mucosa. Repeat blood cultures were negative. Due to worsening of dyspnea, secondary to progressive ILD and recent PE aggravated in the setting of bacteremia and sepsis, patient wished to be transitioned to comfort care .Further workup for bacteremia was withheld.

There are no reported case reports of non-gonococcal, non-meningococcal neisseria in patients on infliximab and/or durvalumab to our knowledge. Bacteremia caused by commensal Neisseria spp. in patients on immunotherapy, warrant aggressive treatment with antibiotics.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 119 Category: Clinical Vignette

Program: St. Joseph Mercy - Ann Arbor
Program Director: Patricia McNally, MD, FACP
Presenter: Jaya Gupta
Additional Authors: Kenneth Buchanan MD, Karan Kevin Jaggi MD, Irina Burman-Solovyeva MD FACP

More Than Meets the Eye: An Unusual Cause of Presumed Conjunctivitis

The presentation of a red eye is often assumed to be conjunctivitis. Whether viral or bacterial, conjunctivitis is usually treated primarily by the internist. However, persistent erythema of the eye should raise concern for other ocular or orbital disease processes. These include but are not limited to neoplasia.

We present a 39-year-old male with erythema of his right eye, who was initially seen in the primary care office. He was first treated for bacterial conjunctivitis with a course of ofloxacin eye drops. However, the condition progressed. On return, he was found to have a 3 mm erythematous mass on his conjunctiva, near the right lateral canthus. He was urgently referred to ophthalmology. Slit lamp examination revealed an inferotemporal nodular lesion. Since it was monocular, this increased suspicion for ocular lymphoma, and he was referred to the ocular oncology clinic. Biopsy results showed that the mass was an apocrine hidrocystoma, a benign cyst originating from the sweat glands.

Conjunctival neoplasms usually originate from squamous epithelium, melanocytes, or lymphoid tissue. They are frequently malignant, and biopsy is required to distinguish them from benign neoplasms. Even if benign, without excision, such lesions cause visual defects and tissue destruction. Currently there are no case reports in the literature of an apocrine hidrocystoma presenting on the conjunctiva. While our patient had a good outcome, it is important to note the high probability of malignancy in these neoplasms, and the risk of missing a crucial diagnosis. This case illustrates the importance of early recognition and referral.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 120 Category: Clinical Vignette

Program: St. Joseph Mercy - Ann Arbor
Program Director: Patricia McNally, MD, FACP
Presenter: Sri Apurupa Jasti
Additional Authors: Fadi Hawa, Erik J. Carson, Carolyn Carrera

Male Breast Cancer Presenting as Pancreatic Malignancy: A Rare Presentation of a Rare Malignancy

Introduction: Male breast cancer is rare (approximately 1% of all breast cancers) which usually presents as a breast mass with metastatic potential. However, diagnosis can be challenging and treatment may be delayed or inappropriate if the initial radiological findings point to a metastatic site as the primary cancer.

Case Report: A 67-year-old male with long-term marijuana use and congestive heart failure presented to the hospital with decreased appetite, weight loss and fatigue for 2 weeks. Physical examination and laboratory findings were unremarkable. Initial CT abdomen showed pancreatic mass with hepatic, pulmonary and osseous metastases with no mention of breast mass. During a discussion with radiology to determine the most accessible site for biopsy, it was mentioned that the patient's pancreatic mass does not possess the general characteristics of a primary tumor and is likely a metastatic lesion itself. Upon further review of the CT images, it was noted that the patient has a right breast mass and axillary lymphadenopathy. Biopsy from those lesions revealed invasive ductal carcinoma that is estrogen/progesterone receptor positive and HER-2 negative. Patient is now started on anti-estrogen therapy and is being further evaluated for the possibility of pancreatic metastasis or a synchronous primary pancreatic cancer.

Discussion: Initial presentation of breast cancer as metastatic pancreatic cancer or a synchronous primary pancreatic malignancy is very rare. Literature review thus far has revealed only 49 cases of breast cancer metastasizing to the pancreas. Early recognition of such presentation ensures timely diagnosis, accurate staging and appropriate choice of cancer treatment.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 121 Category: Research

Program: St. Joseph Mercy - Ann Arbor
Program Director: Patricia McNally, MD, FACP
Presenter: Wade Jodeh
Additional Authors: Komal Imtiaz, Jason Hecht, Dave Sudekum, Bruno DiGiovine

Use of Inhaled Epoprostenol for Acute Respiratory Distress Syndrome Secondary to COVID-19: A Case Series

Introduction: Inhaled epoprostenol (iEpo) has been implicated as a potential inhibitor of SARS-CoV-2. At the time of conducting this research, there were no published studies describing the use of inhaled pulmonary vasodilators in treating ARDS secondary to COVID-19. We present a descriptive retrospective case series on patients with severe COVID-19, admitted to the ICU and managed with iEpo.

Methods: Data collection took place from 4/1/2020 to 5/31/2020 on consecutive patients who were admitted to 1/3 hospitals in southeast Michigan. All 15 patients included received iEpo and had laboratory confirmed COVID-19. Data collection included multiple clinical parameters including ABGs both before and following initiation of iEpo regimen.

Results: Prior to receiving iEpo, all patients were on mechanical ventilation (MV). The latest ABGs before iEpo showed a mean P/F ratio of 95.7 mmHg; reflecting severe ARDS. Within 24 hours of iEpo administration, the mean P/F ratio improved from the “severe” range to “moderate” range (118.9 mmHg), although not a statistically significant increase. Amongst our analyzed patients, all but one demonstrated an increase in P/F ratio following iEpo initiation. Post-iEpo, the average time to weaning of MV was 6.8 hours, and within a 24 hours, mean PaO2 improved from 84.7 to 93.5 mmHg.

Conclusion: Overall, our findings have demonstrated a trend towards improvement in oxygenation of moderate-severe ARDS in COVID-19 patients; through values of increasing P/F ratios, PaO2, and relatively short intervals to first wean off MV. We hope that our findings portend the value of a multi-institutional prospective trial.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 122 Category: Clinical Vignette

Program: St. Joseph Mercy - Ann Arbor
Program Director: Patricia McNally, MD, FACP
Presenter: Sanjana Nagra
Additional Authors: Dr. Al Sous

Cardiac Lymphome

Primary cardiac tumors are extremely rare. Lymphomas account for only 1% of these tumors. These lymphomas are typically of the non-Hodgkin type, with approximately 80% of these cases DLBCL. A 78 yo male presented to the emergency department with dyspnea on exertion and was found to have new onset atrial flutter and CHF. A TTE at that time revealed a mass attached to the TV annulus and a moderate pericardial effusion. A TEE was then subsequently performed which demonstrated a mass attached to the RV near the annulus that encased the left circumflex and right coronary arteries. CT abdomen/pelvis was performed which was negative for any evidence of malignancy. CT-Surgery was consulted for biopsy of this cardiac mass. He underwent a subxiphoid pericardial window for drainage of the pericardial effusion and Tru-Cut biopsy of the right ventricle. Biopsy results were positive for T cell lymphoma. Given the extent of the mass, surgical resection of the mass was not possible. The patient was evaluated by oncology who recommended PET scan and outpatient follow up. This case illustrates a very rare primary cardiac tumor. Treatment of these tumors consists of surgical resection, which is often difficult due to the infiltrative nature of the tumor, along with chemotherapy and radiation. However, the overall survival rate for patients with a primary cardiac tumor is < 1 month without treatment but can be up to 5 years with palliative treatment.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 123 Category: Clinical Vignette

Program: St. Joseph Mercy - Oakland
Program Director: Geetha Krishnamoorthy, MD, FACP
Presenter: Stephanie Hang
Additional Authors: Vanessa Ogundipe, MD; Carl Palffy, MD; MD; Geetha Krishnamoorthy, MD, FACP

Acute Generalized Exanthematous Pustulosis, a Very Rare Severe Cutaneous Drug Reaction with a Good Prognosis

Acute Generalized Exanthematous Pustulosis (AGEP) manifests with abrupt onset of numerous sterile pustules, fever and leukocytosis. Its incidence is 1 in 5 million, caused usually by antibiotics. We report a case of AGEP, requiring desensitization for antibiotics in order to treat the infection.

A 55-year-old woman with lymphedema presented for painful leg ulcers. She reported skin rashes to multiple antibiotics. Physical examination: Tachycardia, lower extremity lymphedema with multiple foul-smelling ulcers. WBC count: 9800/mcL, lactate 3 mmol/L. Patient was started on IV vancomycin and IV cefepime for sepsis secondary to cellulitis. Deep wound cultures grew Pseudomonas aeruginosa and Streptococcus agalactiae. On day 3, the patient developed fever, leukocytosis and skin eruption. The antibiotic doses were decreased but due to persistent symptoms, they were discontinued for 96 hours. AGEP was diagnosed and treated with topical steroid and lidocaine. Due to patient's AGEP from Vancomycin/Cefepime, and previous skin rash to Piperacillin-tazobactam and Fluoroquinolones, there was a risk of allergic reaction with any antibiotic. In the intensive care unit, gradually increasing dose of Linezolid was started per Allergist's recommendation. After 24 hours, patient was desensitized and was started on aminoglycoside. Patient tolerated the antibiotic regimen without skin rash.

AGEP can be mistaken for more serious conditions like Stevens-Johnson syndrome/toxic epidermal necrolysis, which require management in the burn unit. AGEP is treated by stopping the offending drug and potent topical steroid with good prognosis. Internists should be aware of AGEP, because though rare, it should be correctly diagnosed, and offending drug stopped for resolution.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 124 Category: Clinical Vignette

Program: St. Joseph Mercy - Oakland
Program Director: Geetha Krishnamoorthy, MD, FACP
Presenter: Nihar Jena
Additional Authors: John Marlo,MS3; Justin Field,MD; Mayuri Kulkarni, MD; Jiries Quaqis, MD; Geetha Krishnamoorthy, MD,FACP

Well Done Steak, Pasteurized Milk, Hard Boiled Eggs, and Washed Produce to Reduce the Risk of Prosthetic Valve Endocarditis

Introduction:
Listeria monocytogens (LM) is a gram-positive rod found in raw and unprocessed food. Listeriosis usually causes fever and diarrhea. Listeriosis is severe in pregnancy increasing fetal mortality, and is invasive in elderly and immunocompromised leading to sepsis, meningitis, osteomyelitis, prosthetic graft infection, etc. The incidence of listeria endocarditis is 1-6% of all prosthetic valve endocarditis in the USA. We describe a case of prosthetic aortic valve endocarditis caused by LM.

Case Presentation:
A 73-year-old male with a bioprosthetic aortic valve presented due to feeling sick. Physical examination: BP 96/45 mmHg, afebrile, heart rate 58/min, a loud systolic murmur in the aortic area that radiated to the neck, leg edema. A chest x-ray showed pneumonia. He was started on azithromycin, ceftriaxone, and vancomycin. Transesophageal echocardiogram revealed an ejection fraction of 25 to 30%, with severe central aortic bioprosthetic regurgitation, and flail left coronary cusp with a mobile filamentous echogenic mass attached to the aortic aspect. Blood cultures were positive for LM. Antibiotics were changed to ampicillin and gentamycin, and he was transferred to a tertiary care center for valve replacement.

Discussion:
Listeria is the third common cause of death due to foodborne illness with a case fatality rate of 20%. LM endocarditis is typically subacute, is more common in males, most often affects abnormal native or prosthetic valves, and has a high mortality. Ampicillin and gentamycin are the agents of choice for treatment; and LM is not susceptible to any cephalosporin. Trimethoprim/sulfamethoxazole, meropenem, and linezolid are alternatives when there is an allergy.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 125 Category: Clinical Vignette

Program: St. Joseph Mercy - Oakland
Program Director: Geetha Krishnamoorthy, MD, FACP
Presenter: Justin Khine
Additional Authors: Nihar Jena, Nadia Khosrodad

Pseudomonas Brain Abscess Encapsulated in the Ciliated Respiratory Epithelium as a Delayed Presentation of Traumatic Facial Injury

Bacterial brain abscesses are typically spread through a hematogenous route. Open head wounds and neurosurgical interventions are uncommon etiologies. Ectopic tissue found in the cerebral cortex is usually ascribed almost entirely from carcinomas. Here, we describe a case in which a 57-year-old gentleman presented 22 years after a fireworks-related, traumatic injury to the left orbit who presented with headache and altered behavior. Imaging revealed an abscess immediately superior to the orbit, whose bacterial etiology was identified to be Pseudomonas aeruginosa, encapsulated by ciliated respiratory epithelium. This represents a case in which tissue was displaced during the initial trauma or craniofacial reconstructive surgery from the frontal sinus.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 126 Category: Clinical Vignette

Program: St. Joseph Mercy - Oakland
Program Director: Geetha Krishnamoorthy, MD, FACP
Presenter: Khosrodad Khosrodad
Additional Authors: Justin Khine, Ghadeer Hannoudi, Benjamin Diaczok

Crescentic IgA Nephropathy Precipitated by E. coli Pyelonephritis: An Unusual Presentation and If Missed, May Lead to Permanent Renal Failure

Introduction

IgA nephropathy (IgAN), an immune complex–mediated disease, is the most common glomerulonephritis throughout most developed countries with prevalence as high as 20%. Approximately 40 to 50% present with one or recurrent episodes of gross hematuria, precipitated by concurrent upper respiratory infections or bacterial tonsillitis. Other infections, such as E. coli pyelonephritis, are rare precipitating causes. Early diagnosis and prompt treatment is essential and may prevent permanent renal failure.

Case report

A 28 y.o. 7-week pregnant lady was admitted with E. coli pyelonephritis. She denied any respiratory symptoms. Vitals were: heart rate 112 bpm and blood pressure 113/51. Labs revealed: BUN 13mEq/dL, Cr 1.95mEq/dL, Hgb 11.6g/dL, WBC 25.1 x 109/L, platelets 291 x 109/L. Urinalysis revealed red, cloudy urine with 3+ blood, >50 RBCs, pyuria, 3+ leukocyte esterase, nitrite positive and 2+ bacteria. She developed acute hypoxic respiratory failure. Pulmonary embolism, ARDS, and pneumonia were excluded. Her creatinine rose to 4.4mg/dl. She underwent hemodialysis. Subsequently, she developed hemoptysis. A kidney biopsy revealed crescentic IgA nephropathy. She was started on steroids, cyclophosphamide, and plasma exchange. Her kidney function normalized at discharge.

Discussion

IgAN typically presents after respiratory or gastrointestinal infections with gross hematuria, limited proteinuria (>1g/day), azotemia, RBC casts and dysmorphic RBCs in the urine. Other precipitating infections are very rare. Clues to the diagnosis include hematuria and hemoptysis developing after infections. Most cases are mild and self-limited. Patients developing crescentic disease have a poor outcome but respond well to immunosuppression, so early detection and treatment is imperative.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 127 Category: Clinical Vignette

Program: St. Joseph Mercy - Oakland
Program Director: Geetha Krishnamoorthy, MD, FACP
Presenter: Swathi Muthyam Mogulla
Additional Authors: Pratik Bhattacharya, MD, Christopher Nofar, MD, Geetha Krishnamoorthy, MD, FACP

Metastatic Esophageal Adenocarcinoma Masquerading as Primary Central Nervous System Vasculitis

Introduction

Esophageal cancer (EC) comprises 1% of all cancers in the US. EC rarely metastasizes to brain. We present a case of esophageal cancer that masqueraded as primary central nervous system vasculitis (PCNSV).

Case presentation

A 54-year-old woman with Stage IV esophageal adenocarcinoma on chemoradiation, presented after a fall. Examination: Left facial droop, confusion, staring, with urinary incontinence. Magnetic resonance imaging brain: Acute embolic infarcts of right frontal, left parietal, and cerebellar lobes. Electroencephalogram: Normal. Echocardiogram: Negative bubble study, no vegetation. Autoimmune and paraneoplastic antibody panels: Negative. COVID-19: Negative. Thyroid, copper/B12, urine drug screen: Negative. Patient had bilateral optic disc edema with extensive hemorrhage, cotton-wool spots, and macular edema. She was started on azetazolamide and nimodipine. Cerebrospinal fluid (CSF) analysis: Unremarkable. Cerebral angiogram: Vasculopathy. PCNSV was considered, treated with pulsed methylprednisolone. Repeat brain imaging: Acute to subacute ischemic infarcts at the periphery of cerebellar hemispheres, cortical edema, hydrocephalus, and papilledema, suggestive of cerebral vasculitis. Cyclophosphamide given. She had a cardiorespiratory arrest and was resuscitated and intubated. After resuscitation, she was comatose, with negative brainstem reflexes, and expired. Later, CSF cytology reported cells suggestive of adenocarcinoma.

Discussion

EC metastasizes to brain as single or multiple brain lesions, presents with headache, seizures, motor/visual deficits. There have been no reports so far with fluctuating areas of brain involvement by EC. PCNSV presents with multiple infarcts and is detected by segmental narrowing of blood vessels. This is a rare presentation of EC mimicking PCNSV with fluctuating areas of involvement without a distinct lesion.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 128 Category: Clinical Vignette

Program: St. Joseph Mercy - Oakland
Program Director: Geetha Krishnamoorthy, MD, FACP
Presenter: Ibrahim Mohammed
Additional Authors: Swathi Muthyam Mogulla, MD, Christopher Nofar, MD, Geetha Krishnamoorthy, MD FACP

Exertional Heat Stroke Presenting with Multiorgan Failure

Introduction

Heat stroke (HS) is characterized by an increase in core body temperature above 104oF. The two types of heart strokes are classic and exertional. Classic HS is seen in elderly and develops slowly. Exertional HS is seen in younger individuals associated with physical exertion, leading to multiorgan failure and death. We present a case of heat stroke presenting with multiorgan failure.

Case presentation

A 32-year-old healthy male was brought to the hospital unresponsive. He had been jogging earlier and was found unresponsive by his neighbor. On presentation, his temperature was 107.4□F, BP: 74/34mmHg, heart rate 150/min, respiratory rate 30/min. He was intubated, cooling blankets, and cold intravenous fluids were given. Laboratory evaluation: creatinine: 2.28mg/dl, aspartate and alanine aminotransferase >1000 U/L, alkaline phosphatase -normal, total bilirubin: 3.7 mg/dl, lactate dehydrogenase -1527 U/L, troponin: 26 ng/ml, creatine kinase > 40,000 U/L, haptoglobin: 3 mg/dl, prothrombin time: 42 seconds, INR 3.46, activated partial thromboplastin time: 34 seconds, D-dimer: 2000 ng/mL, fibrinogen: 104 mg/dL. Acetaminophen, salicylate, ethanol, urine drug screen, pan cultures, electroencephalogram, and COVID-19: negative. White cell count: 1800/UL, hemoglobin – 9 g/dl, platelets reached a nadir of 37,000/UL. Abdominal imaging was normal. With supportive treatment, he gradually recovered.

Discussion

Exertional HS is an under recognized fatal condition that can cause multiorgan failure. Acute liver injury requiring liver transplantation has been reported. Acute myocardial and kidney injury, rhabdomyolysis, disseminated intravascular coagulation, respiratory and circulatory failure can occur. No guidelines are available for management; treatment is aimed at reducing core temperature.

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Resident/Fellow Poster # 129 Category: Clinical Vignette

Program: St. Joseph Mercy - Oakland
Program Director: Geetha Krishnamoorthy, MD, FACP
Presenter: Emad Wahashi
Additional Authors: Benedict Amalraj, MD; Ahmed Abubakr, MD; Mehrvaan Kaur, MD; Waleed Khokher, MD; Geetha Krishnamoorthy, MD, FACP

Transient Kluver-Bucy Syndrome Due to Temporal Lobe Seizures, a Rare Entity

Kluver-Bucy Syndrome (KBS) is a dramatic disorder associated with damage to bilateral anterior temporal lobes. Symptoms include memory impairment, visual agnosia, emotional changes, indifference, hyperorality and hypersexuality. KBS is reported in herpes encephalitis, bilateral temporal lobe surgery, brain trauma, bilateral infarctions, paraneoplastic limbic encephalitis and Pick's and Alzheimer's dementia. We present a case of transient KBS due to temporal lobe seizures, a very rare occurrence.

A 60-year-old male with prior stroke was brought to the hospital due to inability to recognize family, vocalization of random words and screaming, tongue and finger biting and inappropriate sexual conversation. Emergent CT scan of brain showed old left temporo-parietal lobe infarction and MRI showed encephalomalacia of the left temporo-occipital region. Temporal lobe seizures were considered as a cause of his symptoms and anti-epileptic medication was started. After anti-epileptic medication, KBS resolved. Unfortunately, electroencephalogram was only done after KBS resolution and was normal.

Patients with KBS usually have bilateral damage to the temporo-parietal lobes on brain MRI. Peri ictal hyperorality, hypersexuality and genital automatisms are part of KBS spectrum and are reported in patients with bilateral temporal lobe epileptic foci or surgery and if unilateral, the focus or surgery was left sided. Transient KBS such as due to seizures should be suspected in patients who fit the clinical criteria even in the absence of classical MRI findings. Our patient had full KBS as a presentation of temporal lobe seizures, which is very rare and only a few cases are reported in the literature.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 130 Category: Clinical Vignette

Program: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Zarak Khan
Additional Authors: Amreetpal Sidhu, George Roman, Kashif Mukhtar, Ramsha Zaidi, Munis Ahmed, Alan Putrus

Sulfasalazine Induced DRESS Syndrome Precipitated by Recent Amoxicillin Use

Introduction

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) Syndrome is a type IVb hypersensitivity causing rash, fever, lymphadenopathy, hepatitis, and eosinophilia. We present a unique case of sulfasalazine (SSZ) induced DRESS syndrome likely precipitated by recent amoxicillin use.

Case Presentation

27-year-old female with ulcerative colitis presented with congestion, cough, fever, diarrhea, dark stool, and rash. She started amoxicillin 1 week before and switched to azithromycin after she developed rash. She also started SSZ 3 weeks prior. On admission, she was tachycardic, tachypneic and febrile with a diffuse rash. Labs showed eosinophilia, elevated LFTs and INR. CT revealed axillary lymphadenopathy with findings concerning for pneumonia. Azithromycin and ceftriaxone were started and SSZ was stopped. Workup was negative for RSV, influenza, SARS-CoV-2, ANA, AMA, ASMA, viral hepatitis, EBV IgM and C. difficile toxin but positive for EBV IgG. Due to worsening hepatitis, she was transferred to a transplant center where further workup with ceruloplasmin, iron panel, CMV, HHV-6, HSV 1/2, VZV and anti-LKM-1 antibodies were negative. Rash punch biopsy was consistent with drug eruption and methylprednisolone was started. After marked improvement in symptoms and hepatic function, she was discharged on tapering corticosteroids.

Discussion

As DRESS Syndrome manifests 2-8 weeks after initiation of the offending agent, early detection and withdrawal of the agent can be challenging. The severe symptoms in our case might be secondary to concurrent reactivation of EBV. With previous reports of SSZ-induced DRESS syndrome elicited by amoxicillin, physicians should practice caution when choosing amoxicillin in patients taking SSZ.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 131 Category: Clinical Vignette

Program: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Danekka Loganathan
Additional Authors: Punitha Vijayakumar

Disorder of the Heart Caused by the Brain!

Cardiac asystole following a seizure is a rare life-threatening event typically associated with temporal lobe epilepsy and is a risk factor for sudden unexpected death in epilepsy (SUDEP). This involves activation of cortical autonomic centers that increase vagal tone through activation of brainstem reflex centers, thereby causing cardiopulmonary failure.

A 62-year-old male with hypertension, COPD, stroke presented with altered mental status During the admission he had a 49 second period of asystole which resolved spontaneously. He was agitated and combative following the event and was triaged to ICU. While in the ICU a generalized tonic-clonic seizure precipitated bradycardia and subsequent asystole, for which he received CPR. ROSC was achieved after 2 minutes. His electrolytes were normal, EKG was unremarkable, with normal QTc. EEG showed encephalopathy without active seizures. CT head was unremarkable for acute findings. Echocardiography was unremarkable. He got a dual chamber pacemaker and was discharged to follow-up with neurology for further evaluation of new onset seizures.

Ictal asystole is a rare event, and commonly treated with a pacemaker. It is crucial to identify ictal causes of asystole without misdiagnosing it for seizure following hypoperfusion due to cardiac arrest. Early diagnosis of this is crucial to prevent SUDEP. As insertion of pacemaker has been proven to be lifesaving.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 132 Category: Clinical Vignette

Program: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Kashif Mukhtar
Additional Authors: Zarak Khan, George Roman, Munis Ahmed, Ramsha Zaidi, Narendra Khanchandani

Air in Stomach Wall with Necrosis: A Case of Emphysematous Gastritis

Emphysematous gastritis is a diffuse inflammation of the wall of the stomach. It is usually caused by gas-forming organisms. It has a poor prognosis and the mortality ranges from 60-80%.

We present an interesting case of a 70-year-old female with a history of obesity, type 2 DM who presented with left upper quadrant pain, constipation, nausea, and vomiting for 3-4 days. The pain was sharp and non-radiating. CT angiogram of the chest showed multiple bilateral pulmonary emboli (PE) with no right heart strain. The patient's abdominal pain was thought to be related to pulmonary emboli and gastroparesis. The patient was admitted and started on intravenous heparin for PE and given bowel rest. Two days later, she developed altered mental status and severe hypoxia. She also experienced acute worsening of the abdominal pain and was visibly toxic appearing. She was intubated and transferred to the ICU. Repeat CTA did not show any new pulmonary emboli but showed a markedly dilated stomach. There was gas within the stomach wall concerning for emphysematous gastritis. The patient underwent EGD which showed necrosis of the stomach wall. Her emphysematous gastritis was managed conservatively as she was not a good candidate for surgery. The patient was successfully extubated a few days later but her mentation remained poor. She was later transferred to a long term acute care facility (LTAC).

With our case, we intend to highlight this rare but potentially fatal variant of gastritis and why clinicians should keep a high suspicion of index.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 133 Category: Clinical Vignette

Program: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Ridham Patel
Additional Authors: Preeti Misra, MD

Life-Threatening Hematuria: A Rare Etiology to Consider Before It Is Too Late!

INTRODUCTION

Ureter-iliac artery fistula (UAF) is an exceedingly rare but fatal (7-23%) cause of massive hematuria and shock. While about 15% of fistulas are primary, majority are secondary to chronic local inflammation. We present a case of life-threatening hematuria timely diagnosed as UAF and subsequently treated with emergent endovascular intervention.

CASE PRESENTATION

A 69-year-old male with retroperitoneal fibrosis and chronic bilateral percutaneous anterograde nephro-ureteral stents presented with gross hematuria containing blood clots. CT-Abdomen/Pelvis revealed collecting-system dilatation and bladder distention, possibly with a hematoma. Initially, both nephro-ureteral stents were exchanged due to clot-induced obstruction. Urine output did not improve by day 4 which prompted extraction of bladder hematoma via cystoscopy. The procedure also eliminated bladder-related etiologies of hematuria. Few hours post-cystoscopy, the patient developed massive hematuria and shock without a confirmed etiology. After initial resuscitation, an aortogram confirmed the suspicion of UAF, which was emergently grafted endovascularly, obliterating the fistula.

DISCUSSION

Timely diagnosis of UAF with an aortogram or retrograde pyelography, followed by emergent intervention, can be lifesaving. However, due to its rarity, diagnosing UAF requires a high level of clinical suspicion. Absence of hemodynamically significant hematuria does not rule out UAF because, like in our case, fistula-occluding clots may be present. Retrograde pyelography and cystoscopy could dislodge such a clot and precipitate massive hematuria. Hence, a patient with chronic ureteral stents or related risk factors presenting with gross hematuria, should clinically raise suspicion for UAF.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 134 Category: Clinical Vignette

Program: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: George Roman
Additional Authors: Zarak Khan, Randa Alsayed, Narayana Gandham, Randa Abd Algayoum, David Steinberger

The Early Bird Catches the PRIS! - Are T Wave Inversions an Early Sign of Propofol Infusion Syndrome?

Propofol Infusion Syndrome (PRIS) is a dangerous complication after prolonged Propofol use, presenting with hepatotoxicity, hypertriglyceridemia, renal toxicity, and heart failure. A few cases have been reported where T-wave inversions were identified on electrocardiography prior to the occurrence of classic PRIS manifestations. We report a case of PRIS detected with T-wave inversions.

A 35-year-old male patient admitted after a motor vehicle accident while driving intoxicated. CT head revealed findings consistent with diffuse axonal injury. Patient continued to become progressively agitated despite using different sedatives. He eventually required intubation for airway protection and sedation with Propofol and Fentanyl. Throughout his ICU admission, the patient received maximal doses of Propofol, unable to wean off sedation. New T-wave inversions were noted, which were confirmed with ECG in the inferolateral leads. Troponins were negative. Labs obtained revealed elevated liver enzymes and creatinine kinase. PRIS was suspected; Propofol was discontinued and the patient was started on alternative sedation. Subsequent ECGs following Propofol discontinuation, demonstrated return of electrical activity to baseline.

PRIS has been associated with a high mortality rate. Propofol leads to impairment of ß-oxidation of free fatty acids in mitochondria, causing inhibition of intracellular energy production; leading to widespread cell death and multi-organ failure. ECG changes were reported in 67% of patients with PRIS in one study. Our case highlights the fact that PRIS may develop with subtle, nonspecific signs, such as inverted T-waves. Therefore, careful clinical, biochemical, and electrocardiographic monitoring is strongly recommended for early detection of PRIS.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 135 Category: Clinical Vignette

Program: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Manikandan Seralathan
Additional Authors: Dr.Manikandan Seralathan MD, Dr.Ridham Patel MD , Dr.Preeti Misra MD, Dr.Narayana Gandham MD

Expect the Unexpected, A Case of Proteus Mirabilis Pericarditis

In the United States, etiologies of pericarditis have changed significantly in the post-antibiotic era, particularly making purulent (bacterial) pericarditis relatively uncommon. Gram-negative species like Proteus mirabilis causing purulent pericarditis is extremely rare.

78-year-old female with a history of rheumatoid arthritis and hypothyroidism presented to the hospital with complaints of right-sided sharp non-radiating chest and progressive shortness of breath for 10 days. On subsequent evaluation, CT imaging showed a large pericardial effusion with features of early tamponade and left-sided pleural effusion. The cardio-thoracic surgeon subsequently drained 700ml of bloody fluid from the pericardial space along with 950ml of clear fluid from the left pleural space. The pericardium had a gross characteristic “bread and butter appearance”. Cultures from the pericardium and left chest drain grew Proteus mirabilis and rare diphtheroids. The pathology exam showed organizing fibrinous pericarditis with no signs of malignancy. Upon extensive work up no focus of infection was identified suggesting that it could have been a primary infection of the pericardium. The patient was treated with IV ceftriaxone for 10 days followed by PO cefuroxime for 4 days with complete clinical recovery.

Previously two cases were described with a similar presentation where polymicrobial gram-negative species including Proteus mirabilis were isolated. The classic "bread-and-butter" appearance of fibrinous pericarditis has been described in rheumatic disease and other immunologic diseases such as systemic lupus erythematosus, post-myocardial infarct, uremia, tuberculosis, radiation effects, bacterial, and viral etiology. Our case, to the best of our knowledge, is an extremely rare presentation of primary purulent pericarditis secondary to Proteus species.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 136 Category: Clinical Vignette

Program: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Aishwarya Verma
Additional Authors: Chirag Kher, Pranay Korpole, Marlee Thomas

Takayasu Arteritis in a 44-year old Caucasian Female Presenting with an Aortic Arch Thrombus

Introduction:
Takayasu Arteritis is a large vessel vasculitis predominantly diagnosed in patients under 40 and of East Asian descent. We present a rare case of Takayasu arteritis in a 44 year-old Caucasian female presenting with an aortic thrombus.

Case Presentation:
A 44 year-old Caucasian female with alcohol dependence and depression presented with four months of diffuse abdominal pain, nausea, vomiting and worsening bilateral claudication. On examination, blood pressure was unobtainable at the left arm. In addition, she had diffuse abdominal tenderness to deep palpation and dopplerable pulses only in the left radial and dorsalis pedis arteries. Bloodwork showed leukocytosis, elevated creatinine, D-dimer, ESR, and CRP with a negative hypercoagulability workup. Contrast CT showed multiple acute, subacute, and chronic infarcts in the spleen and right kidney. Lower extremity arterial Doppler showed severe bilateral arterial stenosis with digital ischemia. Echocardiography showed two large mobile masses in the aortic arch, which were believed to be embolizing to the splenic and renal arteries. She was diagnosed clinically with large vessel vasculitis and started on high dose steroids and anticoagulation.

Discussion:
Takayasu arteritis is a chronic inflammatory disease of large and medium sized arteries, involving the aorta and its branches. Diagnosis is based on clinical presentation, relevant labs, and imaging findings of vessel wall thickening and stenosis. The American College of Rheumatology and Ishikawa's criteria are both reliable clinical tools used for diagnosis. Management includes glucocorticoid therapy, adjunctive immunosuppression or even surgical intervention in severe cases.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 137 Category: Clinical Vignette

Program: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Syeda Ramsha Zaidi
Additional Authors: Sohaib Hasan Syed, Munis Mahboob Ahmed, Kashif Mukhtar, Zarak Khan, Taha Sheikh, Kalyani Movva

Beware of Sneaky Viruses: A Rare Case of Isolated Trochlear Nerve Palsy in an Immunocompetent Host

Varicella Zoster virus (VZV) is a double-stranded DNA human-herpes virus that causes chicken pox and then becomes latent in dorsal root ganglia. It can reactivate secondary to immunosuppression or in old age and cause shingles or post-herpetic neuralgia. In immunocompetent hosts, reactivation of VZV has been reported to be less than 5% and isolated ocular nerves palsies are rarely seen. We present a unique case of isolated VZV-induced trochlear nerve palsy in an immunocompetent patient in the absence of typical skin rash, or sensory neurological manifestations.

60-year-old female with insignificant past-medical history was admitted for persistent headaches, diplopia and low-grade fevers. She was treated for sinusitis with 3-day course of azithromycin with no response. Physical exam revealed trochlear nerve palsy through Parks-Bielschowsky head-tilt testing and was negative for any other eye-restrictive movements, focal deficits, Kernig's or Brudzinski's sign. Imagings including CT-head, CTA-head and neck and MRI-brain, were unremarkable. Cerebro-spinal fluid-analysis revealed lympocytic pleocytosis with elevated protein, low-normal glucose and VZV DNA. Hence, treatment with acyclovir and steroids was started with gradual resolution of symptoms.

The usual presentation of latent VZV in dorsal root ganglia is in the form of dermatomal shingles or involvement of sensory cranial nerves. This case underlines how physicians should also be mindful of isolated motor cranial nerve palsies in regards to VZV, as early diagnosis and treatment is crucial for secondary prevention of complications.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 138 Category: Clinical Vignette

Program: University of Michigan - Ann Arbor
Program Director: Michael Lukela, MD
Presenter: Katharine Epler
Additional Authors: Michael Sola MD; Kathryn Levy, MD

Caught in Transit

A 53-year-old male smoker with hypertension and type 2 diabetes presented with dull left sided chest pain and shortness of breath that persisted for several days following a syncopal episode. A chest CT angiography demonstrated a large saddle pulmonary embolus with extension into upper and lower lobar arterial branches bilaterally. A transthoracic echocardiogram (TTE) showed mobile biatrial echodensities with a negative bubble study. TTE also showed a dilated hypokinetic right ventricle, elevated right ventricular systolic pressure and mildly depressed left ventricular function with an EF of 50%. The patient was hemodynamically stable. He was anticoagulated with heparin and transferred to our institution for consideration of thrombolytics. Repeat TTE re-demonstrated biatrial masses with the right sided mass extending from right atria to the right ventricle. Thrombolysis was deferred given hemodynamic stability and no signs of embolic phenomenon. A transesophageal echocardiogram was done to better characterize the atrial masses. It showed a large clot in transit across a patent foramen ovale (PFO). He was taken emergently to the operating room for evacuation of the intracardiac thrombus, PFO closure, and bilateral pulmonary embolectomy. He tolerated the procedure well and was discharged home 11 days later on systemic anticoagulation. This case demonstrates that even with a negative bubble study, high vigilance to evaluate for shunt physiology is needed in the setting of biatrial thrombi. Furthermore, a clot-in-transit across a PFO has high risk of embolization and should prompt rapid consultation with cardiology and cardiothoracic surgery to prevent catastrophic sequela.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 139 Category: Clinical Vignette

Program: University of Michigan - Ann Arbor
Program Director: John DelValle, MD, FACP
Presenter: Cindy Jiang
Additional Authors: Uttal, Sarah E, and Aggarwal, Vikas

A Catastrophic Event

A 58-year-old male with history of recurrent deep vein thrombosis and pulmonary embolism presented with acute onset right hand weakness and dysarthria. MR brain demonstrated bi-hemispheric and right cerebellar infarcts concerning for cardio-embolic source. Work up revealed an aortic valve mass, patent foramen ovale, and right ventricular dysfunction. Right heart catheterization revealed severe pulmonary arterial hypertension and ventilation-perfusion scan was suspicious for chronic thromboembolic pulmonary hypertension. Patient's diagnosis was further unified for antiphospholipid syndrome (APS) given a positive lupus anticoagulant as well as an elevated beta-2 glycoprotein IgM and anticardiolipin IgM. Empiric antibiotics were discontinued given negative blood cultures and aortic valve mass consistent with Libman-Sacks endocarditis. Definitive plan was made with cardiothoracic surgery for aortic valve surgery and pulmonary endarterectomy, but patient developed acute kidney injury and worsening thrombocytopenia. Due to this, surgery was deferred and he was started on high dose IV steroids and plasmapheresis for catastrophic antiphospholipid syndrome (CAPS). Patient then suffered a second embolic stroke, despite therapeutic anticoagulation and needed emergent cerebrovascular thrombectomy with neurologic recovery. Repeat echocardiogram no longer showed an aortic valve mass. He received further treatment with cyclophosphamide and rituxan over the next several weeks for CAPS. After four months, he was finally able to undergo pulmonary endarterectomy. This case demonstrates the challenges associated with diagnosing and managing rare manifestations of autoimmune diseases. The critical learning points include when to suspect chronic thrombo-embolic pulmonary hypertension as well as APS secondary to Lupus, development into CAPS, treatment decision making, and avoiding further detrimental events.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 140 Category: Clinical Vignette

Program: University of Michigan - Ann Arbor
Program Director: John DelValle, MD, FACP
Presenter: Rayan Nadim Kaakati
Additional Authors: Laura Leuenberger, Daniel Cronin

A Case of Dengue Fever

Discussion: 41yo F admitted with fever after traveling to Yemen/Dubai. While in Yemen, developed fevers, malaise, severe back pain. Exposure: ate “street food”, no known mosquito bites, needle exposures, sexual encounters. Hospital in Yemen r/o malaria. Discharged w/ supportive measures. Subsequently traveled to Dubai w/ continued fevers, severe joint pain, mental fogginess, &difficulty breathing. Noted 2 relatives who traveled w/ her who went to the ICU for similar symptoms and received platelet transfusions. Presented to our ED with continued malaise, joint paint and mental fogginess. Physical Exam: unremarkable. labs: WBC 17.8(55% lymph), Plt 135, transaminitis. 1 week later +IgG, IgM Dengue antibodies. negative: bcx, Chikungua, HIV, Lepto, EBV

Diagnosis: Based on clinical suspicion in a febrile traveler in a dengue—endemic area (use CDC healthmap which includes recent outbreaks) and a combination of ≥2 clinical findings. Clinical findings include: Nausea/vomiting, rash, joint pains, a +tourniquet test, leukopenia. Our patient was in a dengue endemic area (CDC map also showed Dengue outbreaks during the time she visited) w/ hx of fever, severe joint paint, and nausea. mimics: Chikungua, Zika, need to r/o w/ antibody testing for these infections as well (all spread through infected Aedes species Mosquito).

Conclusion: Dengue can be quickly recognized based on clinical suspicion and utilizing CDC healthmap with antibody testing distinguishing from mimics (Zika, Chikungua)
We can reduce transmission through education and recommending vaccination to those with a history of prior infection to reduce the chance of severe dengue occuring with re-infection with different strains.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 141 Category: Clinical Vignette

Program: University of Michigan - Ann Arbor
Program Director: John DelValle, MD, FACP
Presenter: Jessica Sheehan
Additional Authors: Justin Brandler, Michael Rice

The Curious Case of the Recurrent Aseptic Abscesses

A 46-year-old male with a history of recurrent hepatic abscesses presented to the emergency department with fevers, chills, and malaise. On arrival, he was febrile to 39.5° C but hemodynamically stable. Magnetic resonance cholangiopancreatography revealed four hepatic abscesses and mild persistent common hepatic duct stricture. Interventional radiology subsequently placed three hepatic drains; however, fluid cultures yielded no growth. He continued to fever despite the addition of broad spectrum antibiotics with vancomycin, piperacillin-tazobactam, and fluconazole.

Further history revealed that the patient had chronic aphthous ulcers, penile pyoderma gangrenosum, and sacroiliitis. This constellation of findings raised suspicion for inflammatory bowel disease (IBD) as the cause of his aseptic abscesses. Colonoscopy and subsequent exam under anesthesia demonstrated perianal fistula and rectal ulcer. He then had temporary resolution of his fevers after receiving a dose of dexamethasone for nausea, further raising concern for IBD. He was subsequently started on a trial of prednisone 40 milligrams with complete resolution of his symptoms. Hepatic drains were then removed and he was discharged home without antibiotics on a prednisone taper.

Aseptic abscesses (AA) are a rare extra-intestinal manifestation of IBD with less than 50 cases reported in the literature. The hallmarks of AA include (1) negative bacterial and fungal cultures, (2) failure to respond to antibiotics, and (3) rapid improvement with corticosteroids. While rare, this case demonstrates that early initiation of steroids should be considered in IBD patients with abscesses not responsive to drainage and broad spectrum antibiotics.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 142 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Bhavin Choksi
Additional Authors: Sohaip Kabashneh, Samer Alkassis, , Naser Abdelhadi, Kareem Bazzy, Diane L. Levine, Manmeet M. Singh

High-Dose Cytarabine Therapy Induced Palmar-Plantar Erythrodysesthesia and Keratopathy

49-year-old man was diagnosed to have Acute myeloid leukemia (AML) with monocytic differentiation. Cytogenetics revealed FLT3-ITD and TP53 mutation which are associated with an unfavorable risk and poor outcomes. Induction treatment 7+3 (Cytarabine 100 mg/m²/day and Daunorubicin 90 mg/m²/day) failed to achieve remission. MRI for lower backache revealed multiple enhancing bone marrow replacing lesions at T12, lumbar spine, sacrum and posterior iliac wings from leukemic infiltration. High dose Cytarabine re-induction (2gm/m2 12 hourly) began on day +19 along with Acyclovir and Fluconazole for prophylaxis. On day +21 patient developed bilateral burning eye pain, photophobia, headache and subtle confusion. He also developed tingling, swelling and painful erythematous erosive skin eruption symmetrically affecting both hands and feet necessitating discontinuation of further Cytarabine. He was treated with Prednisolone eye drops, artificial tears and moisturizing cream with complete resolution. Subsequent bone marrow biopsy revealed significant reduction in blast percentage.

Cytarabine is an effective drug for treatment of hematologic malignancies. Common toxicities are myelosuppression, gastrointestinal and neurotoxicity with an incidence up to 14%. Cytarabine induced keratoconjunctivitis and palmar-plantar erythrodysesthesia (Hand-foot syndrome) are unique and rare. Standard treatment is discontinuing offending drug and topical emollient, pyridoxine, and soft-pads. Concurrent use of antifungals like Fluconazole is common practice. Fluconazole inhibits enzymes of the CYP450 group. Particularly, CYP3A4 inhibition leads to increased Cytarabine levels. Its excretion in sweat fluid and lacrimation could explain these side effects.

Our case underscores the importance of pharmacogenetics and its potential association with rare side effects. Future studies for prognostic implications are needed.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 143 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Salina Faidhalla
Additional Authors: Mahvish Khalid, Deya Obaidat, Housam Sarakbi

Lupus Flare Causing Thrombotic Thrombocytopenic Purpura (TTP) Like Syndrome

Systemic Lupus Erythematous have a wide range of hematological complications with microangiopathic hemolytic anemia (MAHA) being reported rarely in literature. MAHA is a well known part of Thrombotic Thrombocytopenic Purpura (TTP) manifestations which can overlap with lupus flare up.

We report a case of a middle aged female with known history of SLE, previous lupus encephalitis and medication non adherence who presented with a SLE flare up and TTP like syndrome.

Patient presented with altered mentation. Examination revealed oral ulcers and diffuse severe discoid rash. Initial work up showed acute kidney injury, proteinuria, thrombocytopenia and anemia. Peripheral smear demonstrated schistocytosis, microcytic spherocytosis, and nucleated Red blood cells all concerning for MAHA leading to high suspicion for TTP. Patient was started on plasmapheresis and high dose methylprednisolone.

Further work up also showed positive ANA, low C3, low C4, elevated LDH and low haptoglobin. In the mean time ADAMTS 13 level came within normal limit. Plasmapheresis was stopped as the patient significantly improved and she was continued on methylprednisolone in addition to home dose of Cellcept.

SLE flares can mimic other known medical syndromes, such cases might represent a diagnostic challenge for physicians as prompt recognition of such potentially fatal complications and adequate management could be life saving.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 144 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Sohaip Kabashneh
Additional Authors: Samer Alkassis, Bhavin Choksi, Renato Roxas, Jarrett J. Weinberger, Diane L. Levine, Manmeet M. Singh

Superior Vena Cava (SVC) Syndrome Associated with Exchange Transfusion in Sickle Cell Anemia

39-year-old woman with Sickle Cell Anemia, requiring RBC-Exchange for 20 years, presented with insidious-onset swelling of face/neck/chest over 3 months, weight-gain, and headache. She had a right-sided port that is over 5 years old, and a left-sided port for peripheral access. Examination revealed swelling of face, chest, and breasts (Photograph review: significant increase in weight/girth). Additionally, dilated veins in the upper chest were noted. Patient had multiple protracted admissions at various medical-centers with diagnosis of angioedema and heart failure, without response to dexamethasone/diuretics, thereby frustrating the patient/family. Initial CT Thorax was deemed as 'normal'. In depth review of radiologic-images revealed SVC narrowing/fibrosis around meeting point of two ports. Radiologic interpretation was very challenging: artifact from the ports obscured the meeting point of ports. Eventually Venogram confirmed narrowing/fibrosis and congestion of azygous system, thereby confirming intra-luminal SVC syndrome.

Paucity of data regarding therapeutics in this setting was challenging. SVC stent versus ballooning were considered. Stent was not pursued due to risk of SVC thrombosis. After a lot of deliberation, balloon-angioplasty was performed along with left port removal. Patient had 100% resolution in her symptoms and continues to do very well since last 9 months.

SVC-syndrome, commonly attributed to mediastinal tumor or thrombus, can also occur due to vascular intimal fibrosis and subsequent narrowing of lumen. Our case highlights the importance of recognition of this relatively uncommon pathogenesis of SVC syndrome (chronic central vascular access complication), complexity/challenges in diagnostics and potential for innovative therapeutic interventions and their standardization in this setting.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 145 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Dana Kabbani
Additional Authors: Nabil Al-Kourainy, Jarrett Weinberger

A Rare Cause of Drug Induced Thrombocytopenia in a HIV Positive Patient Treated with Mycobacterium Avium Complex Therapy

Thrombocytopenia secondary to human immunodeficiency virus (HIV) is associated with adverse sequela, typically secondary to immune thrombocytopenic purpura (ITP). In the presence of HIV, thrombocytopenia is due to HIV-mimetic anti-platelet antibodies. Therapy for common HIV-associated opportunistic infections and other sequelae may further impact platelet counts. HIV-ITP is a diagnosis of exclusion. We present a 42-year-old male with recent admission with newly diagnosed HIV who was discharged on bictegravir, emtricitabine, and tenofovir alafenamide (Biktarvy), sulfamethoxazole/trimethoprim (TMP-SMX) for pneumocystis pneumonia (PCP) prophylaxis, and treatment for disseminated Mycobacterium avium complex (MAC) infection with azithromycin, ethambutol, and rifabutin. The patient presented with epistaxis and a platelet count of one. A peripheral smear revealed no evidence of hemolysis. Following hematology and infectious disease assessment, thrombocytopenia was attributed to immune complex mediated thrombocytopenia (ICMT), likely multifactorial, due to HIV, while on ethambutol and TMP-SMX. Following discontinuation of MAC therapy, his thrombocytopenia resolved, and MAC therapy was re-initiated two weeks after with weekly CBC monitoring. Send-out laboratory studies for antigens and antibodies to help identify the causative agents were pending at the time of discharge. The lack of reported cases of severe thrombocytopenia secondary to MAC therapy, specifically pertaining to ethambutol and rifabutin makes this case clinically relevant when treating HIV- positive patients with concomitant MAC infection.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 146 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Mahvish Khalid
Additional Authors: Deya Obaidat, Salina Faidhalla, Renato Roxas

Pericardial Effusion and Pulmonary Embolism as the Initial Presentation of Metastatic Lung Cancer

Pulmonary embolism and pericardial effusion are common complications of advanced malignancies; however, their concurrent occurrence as initial manifestation of metastatic lung cancer is rare with only a few cases reported in literature. We present a case of an elderly male with past medical history of chronic obstructive pulmonary disease (COPD) who presented with acute progressive dyspnea and cough. He had tachycardia and hypoxia on admission. Chest X-ray showed no significant findings. He was initially thought to have COPD exacerbation and managed accordingly. However, despite adequate treatment patient continued to be symptomatic, therefore a D-dimer was obtained and was found to be elevated. Due to acute kidney injury, patient underwent a V/Q scan which showed mismatched segmental perfusion defects in the right middle lobe, consistent with high probability for pulmonary embolism. Patient was started on heparin drip. Further investigation with echocardiogram demonstrated right ventricular diastolic collapse and large circumferential pericardial effusion; consistent with tamponade. Patient underwent pericardiocentesis which showed hemo-pericardium. After management of the acute issues, CT thorax was done revealing right upper lobe mass with pleural and mediastinal involvement. Cytology and immunochemistry of pericardial fluid was positive for metastatic adenocarcinoma with lung as primary. Patient was referred to Oncology for treatment.

Lung cancer complications can precede the diagnosis of cancer. It is important to have a high index of suspicion in a patient with multiple unusual findings who was previously asymptomatic.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 147 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Georgiana Marusca
Additional Authors: WIssam Kiwan, Ahmed Yeddi, Nada Al Masalmeh

A Unique Case of Severe Hematochezia: Ruptured Pseudoaneurysm of the Superior Rectal Artery

Visceral artery aneurysms are rare. Among the visceral arteries, inferior mesenteric artery (IMA) aneurysms are the rarest.

A 45 year-old man with a history of paraplegia due to complicated surgical management of cervical spondylotic myelopathy, diabetes mellitus, hypertension, gastroesophageal reflux disease and end-stage renal disease on hemodialysis, was brought to the hospital from a rehabilitation facility for painless hematochezia. On admission, he was tachycardic in the 110s with a Hb of 7.2 g/dL. No prior history of hematochezia, melena, easy bruising, constipation, abdominal or vascular surgeries existed. The patient was slightly diaphoretic, with pale conjunctiva, normal bowel sounds, and no abdominal tenderness. A large amount of bright blood was seen flowing out of the anus, but no source of bleed was seen from the perianal region.

CT of abdomen and pelvis with intravenous contrast showed a circumferential mural thickening of the rectum and sigmoid colon. An urgent angiography by Interventional Radiology demonstrated a pseudoaneurysm emanating from the right SRA with a small amount of active extravasation into the rectum. Hemostasis was achieved with Microcoils and Gelfoam. Colonoscopy prior to discharge showed a 15mm ulcer with a yellow-bluish bulge on the right anterior wall of the rectum. The SRA is one of the terminal branches of the IMA. Visceral artery pseudoaneurysms involving rectal arteries are very rare. Acute lower GI bleed in cases of rupture have a high mortality. Compared to true aneurysm, the pseudoaneurysm's rate of rupture is much higher, requiring immediate treatment.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 148 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Yechiel Mor
Additional Authors: Aliza Rizwan MD, Hammad Ali MD, Allan Frank MD, MS

Case Report: Rare Case of an Epidural Abscess Caused by Pasteurella Multocida Leading to Paraplegia

We present an important and previously undescribed consequence of Pasteurella multocida infection resulting in a prolonged recovery period.

A 56-year-old immunocompetent woman with fibromyalgia presented to the emergency department for the third time in one week for acute-on-chronic back pain. On this occurrence, she had acute bilateral lower extremity weakness, inability to ambulate and urinary incontinence. She met sepsis criteria, was lethargic and unable to move her legs due to muscle weakness. Ceftriaxone and Vancomycin were started empirically. CT head revealed no acute intracranial processes. Both blood cultures reported Haemophilus influenzae. She improved clinically, although her paraplegia persisted without improvement. MRI of the spine was performed, notable for a left subscapular abscess, an L2-S2 epidural abscess with severe central canal stenosis, thecal sac displacement and multiple bilateral paraspinal abscesses involving the psoas. Neurosurgery performed L3-L5 laminectomy and evacuation of the epidural abscess and Interventional Radiology performed drainage of the left subscapularis and right psoas abscesses. Blood cultures, initially read as Haemophilus influenzae, were finalized as Pasteurella multocida, a gram-negative coccobacillus part of the normal flora of many animals. Our patient owned a dog and a lick to a wound may have been the most probable portal of entry. This is the first case of an epidural abscess being caused by Pasteurella multocida leading to paraplegia.

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Resident/Fellow Poster # 149 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Neel Patel
Additional Authors: Suman Khicher MD, Prateek Lohia MD

Not a Farce or Farcy; A Very Rare Presentation of Mycobacterium Senegalense Bacteremia in Humans

Introduction

Mycobacterium senegalense is rarely identified as a causative agent of human infections. Only three cases have been reported in the literature, with only one reported case of line associated bacteremia.

CASE PRESENTATION

A 46-year-old man with a history of ESRD on hemodialysis presented from correctional center with fever and chills. He was admitted with suspected permacath infection, started on Vancomycin and Cefepime and daily blood cultures were drawn. Infectious diseases and Nephrology were consulted and recommended changing permacath and sending the tip for culture along with having a line holiday. Patient however refused this procedure and he was discharged with total 2 weeks of antibiotics. Blood cultures remained negative until the day of discharge.

Blood cultures eventually grew Mycobacterium senegalense in all bottles and these bottles finalized 17 days from the day of admission. The patient returned to the hospital for catheter exchange and was treated with culture directed therapy i.e. Doxycycline and Ciprofloxacin for 4 weeks duration and the line was removed.

Discussion

M. senegalense is a bacterium commonly associated in the pathogenesis of African bovine farcy. It rarely causes human infections. Clinicians should be aware about it as a rare cause of bloodstream infection in immunocompromised patients especially in the presence of central venous catheter.

Conclusion

Immunocompromised patients with negative initial infectious work up and not responding to empiric antibiotics, consider rarer organisms. There have been sporadic cases reported of M. senegalense bloodstream infection and there is high level of recurrence without catheter removal.

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Resident/Fellow Poster # 150 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Neelambuj Regmi
Additional Authors: Sara, Amir; Baquar, Ahmed; Kurtz, Daniel; Fatiwala, Lubna

Heme-Pigment Induced Acute Renal Failure in a Patient with Paroxysmal Nocturnal Hemoglobinuria

Paroxysmal Nocturnal Hemoglobinuria (PNH) is a rare hematologic disorder characterized by hemolytic anemia and a pro-thrombotic state. Kidney involvement in PNH can result in acute or chronic renal failure. We report a case of Acute Renal Failure (ARF) requiring hemodialysis in a patient with PNH.

Case Report

A 34-year-old lady with a past medical history of alcohol use disorder and the recent diagnosis of PNH presented with fatigue and generalized abdominal pain. She had also noticed yellowish discoloration of the skin, eyes and dark urine in the last few days. Examination including vitals were normal except for scleral icterus and generalized abdominal pain. Labs were consistent with hemolytic anemia and Acute Kidney Injury (AKI) with a Hemoglobin 10, haptoglobin <30, LDH 3000, Total Bilirubin 5, Direct bilirubin 0.47, Creatinine 11, BUN 45. She also had a flow cytometry positive for PNH during the last admission. Her renal function did not recover and she had a renal biopsy showing ATN with intra-tubular hemoglobin casts suggestive of intravascular hemolysis and hemoglobinuria. She required HD for the ARF and received Eculizumab during the hospital stay after receiving the appropriate meningococcal vaccine.

Discussion

Signs and symptoms of acute hemolysis are characteristics of PNH. Hemolysis is usually precipitated by non-specific factors such as infection, stress, drugs. Kidneys are involved in about 14% of the cases. Eculizumab, which is a humanized monoclonal antibody binds to complement C5 and prevents its cleavage. Early initiation of Eculizumab has shown to improve CKD in patients with PNH and renal failure.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 151 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Aliza Rizwan
Additional Authors: Yechiel Mor MD, Frank Allan MD, Department of Internal Medicine, Wayne State University - Detroit

Case Report: Steroid Induced Reversible Expressive Aphasia

Case report: Steroid induced reversible expressive aphasia
Aliza Rizwan MD, Yechiel Mor MD, Allan Frank MD, Department of Internal Medicine, Wayne State University - Detroit

The most common cause of expressive aphasia is stroke, usually due to thrombus or emboli in the middle cerebellar artery or internal carotid artery affecting the left frontal lobe (Broca's area). We present an important, reversible and previously undescribed cause of purely expressive aphasia without other focal findings.

A 35-year-old female with a history of sickle cell thalassemia and asthma presented with confusion, generalized pain and weakness for 1 day. The initial differential for her encephalopathy was multifactorial including hypoxia, metabolic, infectious (meningitis). The patient had a leukocytosis and was found to have a positive pneumococcal urinary antigen test. CT scan of the head was normal. Lumbar puncture was performed; the patient was empirically started on Cefepime, Vancomycin and Dexamethasone. Lumbar puncture was negative for infectious etiology and antibiotics were deescalated to Ceftriaxone. The patient's mentation gradually improved: she was alert and oriented to person, place, time but had an expressive aphasia. Her Dexamethasone was discontinued after her fourth day. Following dexamethasone discontinuation, we observed improvement in her expressive aphasia at 24 hours. She continued to improve and returned to her baseline within 48hrs post discontinuation.

This case illustrates a reversible cause of expressive aphasia not yet described in the medical literature. Recognition of this presentation is critical to appropriate therapy and excess morbidity, particularly as dexamethasone utilization will increase following recent studies demonstrating dexamethasone effectiveness in managing COVID-19.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 152 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Joseph Sebastian
Additional Authors: Daniel Deneve, Sreya Sebastian, Abubaker Hassan

When to Stop at a Checkpoint?

Immune checkpoint inhibitors (ICIs) are the cornerstones of cancer immunotherapy and are associated with Immune-related adverse events (IrAEs). We present the case of a 59-year-old gentleman, who was admitted to the hospital with a CTCAE grade 3 lipase (>5x normal) and CTCAE grade 3 elevations in ALT and AST (>5x normal). He was enrolled in a study protocol receiving a combination of nivolumab and ipilimumab for his metastatic renal cell carcinoma with serial monitoring of lipase, AST, and ALT. One-week prior, all these labs were within normal limits. His only complaint was a new onset mild epigastric discomfort. Viral etiologies, alcohol, gallstone disease, hypercalcemia, and hypertriglyceridemia were excluded. CT abdomen and pelvis with IV contrast showed no signs of pancreatitis. ICIs were stopped and he was started on high dose IV steroids with continuous monitoring. Lipase and transaminase levels trended down and he was discharged home on oral steroids. On subsequent follow-up, the patient remained asymptomatic and with normal lipase and transaminase level. The differential for acute pancreatic and liver enzyme elevation should include the novel immunotherapies. It is also important for clinicians to be aware that significant asymptomatic lipase elevation can occur in patients treated with ICIs without progression to acute pancreatitis. The NCCN guidelines recommend corticosteroid therapy for the treatment of Grade III transaminitis and symptomatic Grade III or more lipase elevation. In our patient, the Grade III transaminitis warranted steroid treatment and possibly prevented progression to acute pancreatitis.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 153 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Anshu Wadehra
Additional Authors: Neel Patel, DO

Double Trouble: A Case of COVID-19 with Bacterial Superinfection

Introduction: Patients with the Coronavirus Disease 2019 (COVID-19) can present with symptoms of fever and cough. Given the current state of affairs, it is easy for clinicians to exhibit premature closure and not perform a full workup for community acquired pneumonia (CAP), as recommended by the Infectious Disease Society of America (IDSA), in those patients testing positive for COVID-19. We present a case of COVID-19 pneumonia with bacterial superinfection.

Case Description: 73 year old woman with history of type 2 diabetes mellitus, presented with four days of cough and fevers. She was saturating 88% on room air. A chest x-ray showed a left basilar opacity concerning for pneumonia. Laboratory workup included elevated CRP, Ferritin, LDH, CPK, and AST. COVID-19 PCR was found to be positive. As part of the comprehensive CAP workup, she was found to have a positive streptococcus pneumoniae urine antigen. She was started on ceftriaxone for treatment of bacterial co-infection. Throughout the hospital course, her respiratory status declined and she required admission to the intensive care unit, where she succumbed to her disease.

Discussion: This case illustrates the importance of performing a comprehensive workup for CAP, as per IDSA guidelines, in order to appropriately diagnose and treat bacterial superinfection in COVID-19 positive patients. Workup includes obtaining sputum culture, blood culture, streptococcus and legionella urinary antigen testing. Patients exhibiting bacterial superinfection typically have a more severe disease course, as cited by prior literature. Thus, it is vital to have appropriate workup and diagnosis in this patient group.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 154 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Omid Yazdanpanah
Additional Authors: Jasleen Kaur MD, Irfan Shafi MD, Housam A. Sarakbi MD

Diplopia as the Initial Symptom of Multiple Myeloma in a Sarcoidosis Patient

Introduction:
Multiple myeloma (MM) is the neoplastic proliferation of plasma cells. Renal impairment, hypercalcemia, bony lesions, and anemia are usually the initial manifestation of the disease. We describe a diagnostically challenging case presented with diplopia as the initial symptom of MM.

Case:
We present the case of a 45-year-old gentleman with history of sarcoidosis who presented with double vision and headache. On examination, he had left abducens and hypoglossal nerve palsy. CT and then MRI demonstrated extensive osseous lesions with a large expansile mass involving the clivus bone and sphenoid sinus. Laboratory data was remarkable for normocytic anemia, low anion gap, and elevated total protein which raised the suspicion for MM. Subsequent protein electrophoresis and immunofixation illustrated M Spike of IgG Lambda present in the gamma zone. This was followed by a bone marrow biopsy which demonstrated plasma cells compromising 80% of marrow cellularity. Sphenoidal mass biopsy was consistent with plasmacytoma. Patient was initially started on cranial irradiation to shrink the intracranial tumor and is currently undergoing systemic Chemotherapy.

Discussion:
Plasmacytoma is a solid tumor with identical pathology to MM. It is observed in 7 percent of MM cases at the time of diagnosis. Several intracranial vascular, infectious, neoplastic, or inflammatory diseases can result in cranial nerves palsies. However, when clinically correlated, intracranial extension of MM and plasmacytoma should not be overlooked. Because a prolonged delay before diagnosis can lead to severe progression of the disease. Moreover, epidemiologic studies have shown higher risk of lymphoproliferative diseases in patients with sarcoidosis.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 155 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Eric Ayers, MD, FACP
Presenter: Chir Wei Stephanie Yuen
Additional Authors: Abraham Arhin MD, Eric Ayers MD

Unusual Presentation and Complication of SLE

77 year old lady with a past medical history of hypertension who presented with lip and tongue swelling after taking an ACE-i. She was diagnosed with angioedema and, due to hypoxia and inability to protect airway, intubated. On admission, creatinine 1.73mg/dl, BUN 19mg/dl, UCr 270mg/dl, UNa 48mg/dl, FeNa 0.2. HGB 8.2gm/dl, MCV 84. PTL at its nadir was 75K/CUMM. Proteinuria of 1.3g/24hr. TTE showed 50-55% EF, small pericardial effusion. CXR showed patchy bilateral infiltrates, treated with vancomycin after respiratory cultures showed MRSA. Patient initially was oliguric to 50cc/day; UOP improved to WNL, though AKI persisted through admission. Once extubated and transferred to the floors, Foley was discontinued. On physical exam after extubation, bilateral muscle weakness and heliotrope rash were noted as well as hematuria without clots. After the need for repeated blood transfusion, a cystoscopy was performed and showed extensively ulcerated squamous mucosa, lamina propria with chronic inflammation. Renal biopsy showed nonspecific acute tubular injury, with negative Ig and C stain, no deposition on immunofluorescence. ANA 1:320, dsDNA negative, C3 66mg/dl, C4 12mg/dl, ESR 11mm/hr, CRP 21mg/L, Cardiolipin IgM 15MPL, ENA detected, ANCA +(protease & Myloperoxidase within normal). Hepatitis and AIHA panel negative. She was started on hydroxychloroquine and prednisone with taper. Patient's shortness of breath and hematuria improved within three days of initiating treatment, with hematuria resolving completely. Final diagnosis was mixed connective tissue disease, most likely SLE per the 2019 EULAR guidelines, with the unusual, but known associate of angioedema as presentation and complication of lupus cystitis.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 156 Category: Clinical Vignette

Program: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, FACP
Presenter: Nathan Zaher
Additional Authors: Syed Mahmood, MD, Nathan Zaher MD, Thomas Vacek, MD, M Chadi Alraies, MD

COVID-19 Infection Complicated with Hypercoagulable State and ST-Elvation Myocardial Infarction

In December 2019, China reported a cluster of pneumonia cases in their capital, Wuhan, caused by a novel Coronavirus. By March 2020, the World Health Organization declared COVID-19 as a pandemic. COVID19 has been commonly complicated by coagulopathy, 30% of patients have been shown to have a shortened prothrombin time and 16% have been shown to have a shortened partial thromboplastin time. Our case involved a 51-year-old man who presented to the ED secondary to ACS and was taken to the cath lab. A COVID-19 PCR swab was obtained on arrival. The patient's Activated Coagulation Time was checked and was within normal limits. PTCA was performed, and two DES were placed in the circumflex artery. Shortly after, the guidewire was removed, and an angiographic picture was obtained showing acute thrombosis and restenosis of the same vessel. The interventionist immediately reinserted the guidewire and a repeat ACT was drawn, results were subtherapeutic at 167 seconds. This value was drawn 35 minutes after the initial ACT. The patient was subsequently coded and pronounced dead. His COVID-19 test came back positive 3 days later. COVID19 has been commonly shown to cause a state of hypercoagulability, and it has been said that around 50% of disease progression is accompanied by an increase in D-dimer levels. Current literature has not shown any relation between COVID19 and failure of anticoagulation therapy. Further studies should investigate if there is specific resistance of COVID19 to heparin and if this also occurs in other forms of anticoagulation, such as direct thrombin inhibitors.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 157 Category: CQI/EBM

Program: Wayne State University – Internal Medicine – Rochester Hills
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Ankita Aggarwal
Additional Authors: Anubhav Jain, Mishita Goel, Zachary Johnson, Joseph Zebelian, Sarwan Kumar

"Cardiac Care Checklist": Initiative to Improve Screening of Cardiovascular Diseases in a Resident-Driven Clinic

Problem: Atherosclerotic cardiovascular disease (ASCVD) is the leading cause of mortality. As per 2019 ACC/AHA guidelines, promotion of healthy lifestyle is the key to prevention. Studies have shown low adherence with these guidelines. We aimed to increase compliance of screening for risk factors of cardiovascular diseases in adults aged 40-75 years without established ASCVD by 50% in 6 months in our primary care clinic.
Methodology: The Model for improvement and PDSA cycle was used to design the study.
Plan: A root cause analysis revealed lack of awareness and well-described process for screening and documentation.
Do: For the ease of use, a “cardiac care checklist” was created outlining the ASCVD risk factors by ACC/AHA in alphabetical order (A: ASCVD, B: Blood Pressure, C: Cigarettes , D: Diet, E: Exercise, F: Fat [lipid panel], G: Girth [BMI], H: HbA1C). A text macro was also created in the EMR to streamline documentation. A mandatory educational session was then conducted.
Study: Data was again assessed for compliance with screening for the described risk factors.
Act: For the next PDSA cycle, a reminder will be included in the EMR.
Findings: Pre-intervention, none of the patients were screened for all the 8 ASCVD risk factors. Significant variability existed between assessment of individual risk factors. A month after the session, an improvement of 30% in screening for overall with significant improvement ranging from 9% to 42% in documentation of individual risk factors was observed.
Conclusion: Low screening rate for ASCVD were observed. Streamlining the process showed encouraging improvement.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 158 Category: Clinical Vignette

Program: Wayne State University – Internal Medicine – Rochester Hills
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Padmini Giri
Additional Authors: Dr. Verisha Khanam, Dr. Gloria Hong

A Rare Case of Poorly Differentiated Extrapulmonary Large-Cell Neuroendocrine Tumor in an HIV Patient

HIV infected individuals have increased risk of malignancies like Kaposi-sarcoma, primary-central-nervous-system-lymphoma, non-Hodgkin-lymphoma. The incidence of non-AIDS-defining-tumors such as Neuroendocrine-Tumor (NET) has not been well reported in the literature. Majority of NETs occur in the gastrointestinal-tract (68%) and bronchopulmonary tree (25%). Most GI-NETs are in the small intestine with <1% of pancreatic origin. We present an HIV patient with primary pancreatic-NET with liver metastasis.

A 56-year-old African American male with HIV on antiretrovirals presented with chest pain, back pain, dizziness, night sweats, weight loss. Patient is a non-smoker with 30-pack-year history. Initial workup, physical, and vitals were unremarkable. Due to presenting symptoms, CTA of the chest was obtained revealing an incidental soft-tissue mass likely lymphoma. CT Abdomen/Pelvis with contrast revealed lymphadenopathy and 3.7 cm Liver-mass, suggesting lymphoma with soft-tissue metastasis. In view of these findings, the working diagnosis was HIV-lymphoma. CT-guided liver/lymph-node biopsy pathology favored metastatic large cell neuroendocrine carcinoma, probable primary in pancreas.

Even though there are malignancies associated with HIV, it's important to keep a broad differential when working up a patient with HIV. The incidence of ADC decreased since 1998 while NADC increased. This has been attributed to the introduction of combination antiretroviral therapies that increased HIV-patients life expectancy and allowing them to be at the same risk of developing age-related cancers as the general population. NET in HIV positive patients in sites other than lungs and skin has not been well characterized. Previous study has shown correlations between Merkel-Cell-carcinoma and HIV, it is unclear if this pancreatic cancer is sporatic or HIV-associated.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 159 Category: Clinical Vignette

Program: Wayne State University – Internal Medicine – Rochester Hills
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Mishita Goel
Additional Authors: Ameer Khan, Michael Meehan, Yashar Eshman, Nishit Choksi

Role of IVUS in Detecting a Case of Near Miss Coronary Artery Disease (CAD)

Learning objective:
Utilize IVUS in patients with suspected CAD despite negative cardiac catheterization

Case:
A 66-year-old male with history of hypertension, hyperlipidemia, diabetes mellitus and smoking presented with chest pain. He complained of chest tightness for 1 week which was increasing in intensity. EKG on admission showed ST elevation in V4-V6. A cardiac catheterization was done which did not reveal any significant stenosis. He was started on a calcium channel blocker due to concerns for vasospastic coronary disease and discharged. However, he continued to have similar chest pain episodes. Due to persistent symptoms and multiple risk factors, he was brought in for another cardiac catheterization. During the catheterization, IVUS was performed and showed 80% stenosis of the proximal LAD, 70% stenosis of the mid LAD and 82% stenosis of left main coronary artery. The ostium of the LCX displayed 79% stenosis. Most of the plaques were centric and partially calcified. He thus underwent CABG.

Discussion:
IVUS is an intravascular imaging modality that allows transmural visualization of coronary arteries. Coronary angiography is the standard of care for guiding interventions in patients with suspected coronary artery disease but allows only limited visualization of calcified lesion. High clinical suspicion of underlying CAD in our patient due to persistent symptoms and multiple risk factors prompted us to repeat cardiac catheterization with IVUS. This case highlights the importance of clinical suspicion and judgement and utilization of IVUS for diagnosis of coronary artery disease.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 160 Category: Research

Program: Wayne State University – Internal Medicine – Rochester Hills
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Gloria Hong
Additional Authors: Manishkumar Patel, Jurgena Tusha, Padmini Giri, Radha Kishan Adusumilli, Laith Al-janabi, Bernadette Schmidt, Sarwan Kumar

Corticosteroid Treatment in Patients with Severe COVID-19 Pneumonia

SARS-CoV2 is known for causing atypical pneumonia with rapidly progressive respiratory failure requiring intubation. Currently there is lack of consensus regarding steroids use in severely ill COVID-19 patients. We conducted a retrospective analysis to evaluate the efficacy of systemic corticosteroids and outcomes in COVID-19 patients with severe respiratory symptoms.

Charts of 181 COVID-19 patients with severe respiratory symptoms requiring ICU admission in a community hospital in Michigan from March 18 to April 15, 2020, were reviewed. Patients were divided into 2 groups, with or without steroid treatment. Treatment group received oral prednisone, doses range from 10 to 60mg twice daily for an average of 5 days. Primary outcome was mortality rate, secondary outcome was extubation rate.

Our results showed that mortality rate was 53% in the treatment group compared to 57% in the control group ($p>0.05$); extubation rate was 71% in the treatment group compared to 50% in the control group ($p>0.05$).

Existing evidence from literature is inconclusive regarding steroid use in COVID-19. Currently, Surviving Sepsis Campaign recommends using low-dose corticosteroid in intubated COVID-19 patients with ARDS, and National institutes of Health states that there is insufficient evidence for or against steroid use in COVID-19 patients. Though our results did not achieve statistical significance, it indicates that in severely ill COVID-19 patients, systemic steroids with short-term application was associated with lower ICU mortality rates and higher extubation rates. We suggest further studies, in form of a multi-center randomized control trial to assess additional benefits of systemic steroids in COVID-19 treatment.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 161 Category: Research

Program: Wayne State University – Internal Medicine – Rochester Hills
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Manishkumar Patel
Additional Authors: Manishkumar Patel, Gloria Hong, Bernadette Schmidt, Laith Al-Janabi, Radha Kishan Adusumilli, Jurgena Tusha, Padmini Giri

Is Oral Vitamin C Effective Against COVID-19?

It is understood that COVID-19 creates a cytokine storm, which ultimately leads to patient demise. By utilizing the known paradigm of Vitamin C (ascorbic acid) suppressing cytokine release, some recently emerging studies have shown mortality benefit with intravenous ascorbic acid when used in COVID-19 patients. However, there appears to be less information regarding ascorbic acid benefits when given via the oral route. Our study observed the mortality and extubation rate in COVID-19 patients receiving oral ascorbic acid.

A retrospective single-center cohort study was used to design the project. Inclusion criteria included COVID-19 positive patients with COVID-19 symptoms. They were divided into those who received a course of oral ascorbic acid (ascorbic acid group) and those who did not receive ascorbic acid (control group). Patients who received intravenous ascorbic acid were excluded. The primary outcome analyzed was the overall mortality rate, while secondary outcomes analyzed were the extubation rate and ICU mortality rate.

176 patients met our inclusion criteria, of which 96 patients were in the ascorbic acid group and 80 patients were in the control group. The overall mortality, ICU mortality, and extubation rates were 23%, 78%, and 50%, respectively, in the ascorbic acid group. The overall mortality, ICU mortality, and extubation rates were 33%, 58%, and 59%, respectively, in the control group ($p>0.05$).

Our observational study showed when ascorbic acid is administered in oral form, at a lesser dose than would be given if in the intravenous form, it is associated with a mortality benefit and improved extubation rate.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 162 Category: Research

Program: Wayne State University – Internal Medicine – Rochester Hills
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: FNU Sourabh
Additional Authors: Ankita Aggarwal, Mishita Goel, Ameer Khan

IV fluids for Everyone: Are We Drip Doctors ?

For many people receiving care in a hospital or emergency room, one of the most common occurrences is getting an IV, the intravenous catheter that allows fluids and medications to flow into a vein in your arm or hand. IVs can be medically needed when the digestive system isn't working well, to receive more fluids than you're able to drink, to receive blood transfusions, to get medication that can't be taken by mouth, and for a host of other treatments. We checked retrospective data of 50 random patients within last month that were admitted to med/Surg or telemetry floors from ED or transferred from ICU, excluding patients in sepsis/ shock. 19 out of 50 patients did not have any indication for IV fluids. But a total of 55 L fluids were given to them over the whole stay. It amounts to 2.9 L/person and about 29 $ per person per admission (at 10 $/L rate). In addition to cost burden, excess IV fluids administration can lead to problems including electrolyte disturbances and fluid overload. This pilot study gives promising answers and further QI project specific to COPD and Asthma patients is ongoing in our hospital where ED and IM physicians will be made aware of the cost burden and side effects of unnecessary IV fluids before PDSA cycle.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 163 Category: Clinical Vignette

Program: Wayne State University – Internal Medicine – Rochester Hills
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Ahmed Zaki
Additional Authors: Sourabh FNU, M. Albu, L. Al-Janabi, M.Fityan

External Jagular Vein Thrombophlebitis Due to IV Cannulation

Thrombosis of the external jugular vein is a rare condition. EJ vein thrombosis is associated with hypercoagulable states, head and neck infections, such as Lemierre syndrome, and sometimes as a complication of neck trauma. The decision to anti-coagulate should be based on pre-existing risk factors and comorbidities.

Case presentation
A 27-year-old male with known Asthma was in the hospital for 5 days due to Asthma exacerbation and associated pneumonia. His external jugular vein was used for IV cannulation so he developed some swelling. He was sent home on Augmentin. One day later, he came back to the hospital with fever, chills, neck pain with an elevated white count of 28.3. CT scan revealed 3 x 1 x 3 cm subcutaneous abscess lateral right neck with thrombophlebitis involving adjacent right external jugular vein. Abscess showed gram-positive cocci so the Patient was given on six weeks of vancomycin as a treatment of superficial complicated thrombophlebitis while no anticoagulation was given.

Conclusion:
This report describes a rare complication of EJ vein thrombophlebitis occurring secondary to trauma and infection. Most cases are manifested as an asymptomatic neck mass; however, our case presented as neck swelling and pain. Associated complications are postulated to include thromboembolic events and clot propagation.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 164 Category: Clinical Vignette

Program: Western Michigan University School of Medicine - Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Eric Edewaard
Additional Authors: Vishal Deepak MD, Prashant Patel DO

Tumefactive Demyelination: Multiple Sclerosis Presenting as a Single Ring-Enhancing Lesion

Introduction:
Tumefactive demyelination refers to demyelinating central nervous system (CNS) lesions greater than 2 cm, often with ring enhancement and surrounding edema. They can mimic solid malignancy of the brain, presenting a diagnostic challenge for clinicians.

Case:
A 57-year-old woman with history of tobacco use, migraine, and a transient ischemic attack presented with 1 week of focal neurologic symptoms. She began to notice paresthesia of her left foot which progressed up her leg and involved her left arm. She also had waxing-and-waning weakness in her left upper and lower extremities which worsened over several days. Vital signs were stable. Physical exam demonstrated diffuse hyperreflexia, 1/5 left leg weakness and 4/5 left arm weakness with globally decreased sensation to light touch on the left.
Magnetic resonance imaging of the brain showed a 2.5 cm right parietal white matter lesion with partial ring enhancement, without mass effect. Cerebrospinal fluid contained oligoclonal bands and elevated myelin basic protein. As imaging was nondiagnostic and the patient had no history of demyelinating disease, brain biopsy was performed and histopathology confirmed tumefactive demyelination. The patient began high dose systemic steroids, with significant improvement in her strength.

Discussion:
Tumefactive demyelinating lesions must be considered in the evaluation of CNS lesions. They share characteristics with abscesses and malignancies including primary CNS lymphoma and high-grade glioma. When past medical history and lumbar puncture are nondiagnostic, brain biopsy is important in providing histo-pathologic diagnosis prior to initiating appropriate treatment.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 165 Category: Clinical Vignette

Program: Western Michigan University School of Medicine - Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Akshaya Gadre
Additional Authors: Melissa Olken, MD; Aditya Mehta, MD; Dilpat Kumar, MD; Venumadhav Rayasam, MD

Acute Promyelocytic Leukemia Treated with ATRA and ATO, Complicated by Ischemic Stroke

Introduction: The mortality rate due to hemorrhagic complications in Acute Promyelocytic Leukemia (APL) has dropped precipitously with the advent of All Trans Retinoic Acid (ATRA) therapy. Here, we discuss a case of ischemic stroke in a patient of APL on ATRA and arsenic trioxide (ATO).

Case: A 44 year old man presented with two weeks of tooth ache and persistent gum bleeding. He had stable vitals but labs were concerning for pancytopenia. He had WBC count of 1200/microL, 14% blasts, Hb 7.1g/dL and platelets 47,000/microL. Peripheral smear was suspicious for APL and ATRA was initiated. On day 6, after bone marrow (BM) biopsy confirmation ATO was added. On day 8, patient started experiencing right sided facial numbness, dysphagia and temperature sensation loss over left arm. MRI confirmed the diagnosis of right medullary ischemic stroke. ATO and ATRA were stopped until patient neurostablized.

Discussion: Coagulopathy in APL is primarily due to fibrinolysis, accompanied by increased cytokines and protease production, and worsened by low platelets owing to BM infiltration. Effect of ATRA on APL coagulopathy are multiple, including down-regulation of Annexin VIII and endothelial protection. Remote and rare reports of ischemic strokes on ATRA therapy exist. These may have a correlation with gigantic increase in neutrophil counts as they mature and release from BM causing stasis.

Conclusion: Rare reports of thrombotic complications on ATRA exist. Research is needed into the exact mechanism of the pro-thrombotic effects in correlation with rapidly rising cell counts and which lab parameters can be used to prevent this complication.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 166 Category: Clinical Vignette

Program: Western Michigan University School of Medicine - Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Abhinav Garg
Additional Authors: Minh Nguyen Do, Rodrick Dizon MD

A Rare Case of Isolated Neurosarcoidosis Without Evidence of Systemic Disease

Neurosarcoidosis is a rare but serious manifestation of sarcoidosis, a multisystem granulomatous disease. Diagnosis is challenging when neurosarcoidosis occurs in isolation. This report highlights a case of isolated neurosarcoidosis without any systemic manifestations.

A 51-year-old man with hypertension and substance abuse presented with bilateral lower extremities weakness, loss of bowel and bladder control, and gait instability. Physical exam showed decreased strength in bilateral lower extremities, positive Babinski reflex, and clonus bilaterally. Imaging studies revealed hydrocephalus and leptomeningeal thickening from third ventricles to his lumbar spine, but no other organ involvement. His workups were notable for elevated protein 352 mg/dl, mildly elevated angiotensin-converting enzyme (ACE) on cerebrospinal fluid (CSF) with 112 leukocytes. The meningoencephalitis panel for infectious etiology was negative. Chest imaging did not reveal evidence of pulmonary sarcoidosis. The patient had normal kidney function with no peripheral lymphadenopathy on imaging. The patient needed a right ventriculostomy due to worsening confusion. A biopsy of his left frontal brain and meninges showed leptomeningeal hemosiderin-laden macrophages. He was started on high dose prednisone with no significant improvement in his weakness. A repeated biopsy of his cerebellar tonsil showed granuloma formation with multinucleated giant cells confirming neurosarcoidosis. He was transferred to a quaternary center for further care. The patient was then started on methotrexate and methylprednisolone with gradual mild improvement in his lower extremity weakness.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 167 Category: Clinical Vignette

Program: Western Michigan University School of Medicine - Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Michelle Helbig
Additional Authors: Abhinav Garg, MD; Gabriel Kousourou, DO; Theotonius Gomes, DO

Systemic Glucocorticoid-Induced Erythrodermic Psoriasis

Introduction:
Psoriasis is a common inflammatory disease, affecting up to 3% of the population, that has varying clinical sub-types. Identifying erythrodermic psoriasis, an uncommon and severe, life-threatening variant of psoriasis, is critical. We present a classic case of erythrodermic psoriasis triggered by a course of prednisone.

Case:
37-year-old male with a past medical history of newly diagnosed psoriasis presented with several weeks of worsening erythematous rash and desquamation. Prior to onset of rash, patient developed foot pain and went to an urgent care where he was prescribed prednisone. After completing prednisone course, patient noticed a new rapidly progressive erythematous rash with blistering of the skin that started in his lower extremities. It then spread to all four extremities, trunk, back, and face with worsening desquamation, scaling, and pustules throughout his body. Patient was started on cyclosporine and supportive treatment, with rapid improvement of his rash.

Discussion:
Erythroderma is a dermatological emergency defined as diffuse erythema covering 80-90% body surface area; erythrodermic psoriasis is one sub-type. Diagnosis is made by history and physical examination. Most patients with erythrodermic psoriasis have a history of psoriasis to assist in the diagnosis. Management involves supportive treatment including treatment of infection, managing fluid and electrolyte imbalances, as well as prompt initiation of anti-psoriatic therapy. The most common medication known to trigger erythrodermic psoriasis is steroids or the abrupt withdrawal of methotrexate or cyclosporine. Systemic glucocorticoids are a common prescription medication, but not without important and potentially life-threatening side effects.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 168 Category: Clinical Vignette

Program: Western Michigan University School of Medicine - Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Simran Kenth
Additional Authors: Abhinav Garg, MD. Claire Liepmann, MD. Kevin Kavanaugh, MD

The Venomous Vasculitis: A fatally Misdiagnosed Case of Thromboangiitis Obliterans

Thromboangiitis obliterans (TAO) is a vasculitis involving small and medium sized blood vessels, resulting in thrombus formation without vascular laminal involvement. The clinical diagnosis of TAO warrants exclusion of other autoimmune disorders. We present a case of aortic valve thrombus resulting in ischemic stroke in a patient with previously diagnosed TAO.

A 55-year-old-woman with a past medical history of coronary artery disease with prior stenting, clinically diagnosed TAO with left digital ischemia, and continued tobacco use presented with acute right hand numbness. Her exam was significant for regular rate and rhythm, equal radial and ulnar pulses, and diminished sensation over her right digits. A CT head on admission was negative for a stroke and upper extremity arterial doppler revealed triphasic flow. Two days after admission, with worsening hand parasthesias, a MRI brain demonstrated a left post gyrus ischemic stroke.

Transesophageal echocardiogram confirmed an aortic valve thrombus. A rheumatologic evaluation supported antiphospholipid syndrome (APS) with positive ANA, dsDNA, lupus anticoagulant, anticardiolipin, and anti-glycoprotein antibodies. The patient underwent surgical thrombectomy given the high risk of further embolization.
This patient carried a diagnosis of TAO based on clinical criteria and digital ischemia. TAO is not an indication for preventative anticoagulation. On review of her records and Shionoya’s and Olin’s criteria she was likely inappropriately diagnosed with TAO. Further investigation into her limb ischemia could have yielded the diagnosis of APS, preventing the development of an embolic thrombus with the initiation of anticoagulation for her disease.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 169 Category: Clinical Vignette

Program: Western Michigan University School of Medicine - Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Aditya Mehta
Additional Authors: Gadre, Akshaya; Kalavakunta, Jagadeesh K

Wolff-Parkinson-White Syndrome Presenting as Ventricular Fibrillation Cardiac Arrest

Introduction:
Wolff–Parkinson–White syndrome (WPW) is a condition that involves an accessory pathway in the heart. A typical ECG pattern of a pre-excitation shows a short PR interval, presence of a delta wave and a broad QRS complex. One of the rare complications of WPW syndrome is Ventricular Fibrillation (VF) and we present a case that presented with VF cardiac arrest.

Case Presentation:
A 20-year-old healthy man was admitted to the hospital after suffering an out-of-hospital VF cardiac arrest. Few moments before his arrest, he had a sip of cold slushy, felt short of breath, and endorsed chest tightness. He achieved the return of spontaneous circulation after 30-minutes of advanced cardiac life support. His pre-hospital EKG revealed Atrial Fibrillation (AF) with a rapid ventricular rate. His 12-lead EKG revealed ST elevations in leads II, III, and aVF. He underwent cardiac catheterization which was unremarkable. A repeat EKG revealed a shortened PR interval and negative delta waves in inferior leads with the wide QRS complex. The patient subsequently underwent an Electrophysiology study which revealed a left posterolateral accessory pathway and had a successful ablation procedure without any evidence of residual pre-excitation.

Conclusion:
VF accounts for many sudden cardiac deaths in WPW syndrome. The mechanism of VF is known to be due to AV nodal blockade in the setting of AF leading to conduction through the accessory pathway, thus precipitating VF. Our patient had a cold slushy right before his cardiac arrest which was thought to be the precipitating vasovagal event.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 170 Category: Clinical Vignette

Program: Western Michigan University School of Medicine - Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Minh Nguyen
Additional Authors: Duc Quynh Ho, DO. Larry M Jankelowitz, M.D.

A Case of IgG4-Related Interstitial Lung Disease That Manifests as Recurrent Necrotizing Pneumonia

Immunoglobulin G4 (IgG)-related disease is a rare entity involving multiple organs. The pulmonary involvement is highly variable and may present similar to lung cancer, pneumonia, interstitial lung disease (ILD) or sarcoidosis. In this case report, we describe a case of IgG4-related ILD that manifests as recurrent necrotizing pneumonia.

A 34-year old woman presented with chest pain and shortness of breath. Her history is notable for end-stage renal disease on hemodialysis, valvular disease status post aortic valve replacement, a recent group B streptococcus endocarditis of her prosthetic valve, and a recurrent right-sided necrotizing pneumonia (PNA). Her necrotizing PNA was recently diagnosed based on cavitary lesions seen on computed tomography (CT) imaging. Based on her positive broncheoalveolar lavage for Streptococcus Viridans and Lactobacillus species, she was on a course of Ceftriaxone, Metronidazole and Meropenem. A repeat CT showed worsening of her right lung disease. A biopsy revealed an inflammatory pseudotumor with lymphoplasmacytic involvement, raising the possibility of an IgG4-related ILD.

Clinical symptoms in IgG4-related lung disease are nonspecific, including cough, chest pain, and dyspnea. Patients' mean age is 60 years, which does not fit with our patient. Mediastinal and hilar lymphadenopathy are the most common pulmonary patterns, and our patient does have both on her CT findings. An elevated serum IgG4 level raises the clinical suspicion, and her serum IgG4 levels were high at 235 mg/dL. Histopathologic examination remains the gold standard. In our case, the biopsy was consistent with IgG4-ILD. Steroid therapy remains the first line therapy. Patient demonstrated improvement with oral prednisone.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 171 Category: CQI/EBM

Program: Western Michigan University School of Medicine - Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Wasif Elahi Shamsi
Additional Authors: Kevin Kavanaugh MD, Tracey L Mersfelder PharmD. BCPS

Utility and Usefulness of a Diabetes Medication Poster in an Internal Medicine/Medicine-Pediatric Clinic

Introduction: Type-2 diabetes and related complications are a common disease state seen in primary care. The available therapies have increased exponentially. This can be difficult for a busy primary clinician to know and utilize available options efficiently.
Objective: The objective was to determine whether creating a quick reference diabetes medication poster based on costs, classification, and clinical outcomes/contraindications/cautions for use in an internal medicine/medicine-pediatric clinic improves resident and faculty knowledge, comfort, and awareness of those medications.

Methods: This quality improvement prospective study was designed to evaluate the utility of a diabetes medication poster in the clinic over a two-month period. A pre- and post-survey was electronically sent to 65 residents and faculty to assess their level of confidence and knowledge of diabetes medication treatment before and after the poster was distributed. This project was classified as non-research by the Intuitional Review Board.

Results: There were 40 physicians that responded to the pre-survey and 31 to the post-survey. The survey revealed >90% agreed or strongly agreed that the poster would decrease risk of adverse reactions, help control cost, and give confidence to providers while discussing and prescribing diabetic medications. This was statistically similar in the post-survey. The knowledge score increased pre- vs post-survey ($p=0.0398$).

Conclusion: There are a myriad of tools that can be utilized to help navigate complex diseases, such as diabetes. Posters, such as the one utilized in this project, have rarely been evaluated. Based on our results, physicians viewed the diabetes medication poster as favorable and effective.

ACP Michigan Chapter Scientific Meeting 2020

Resident/Fellow Poster # 172 Category: Clinical Vignette

Program: Western Michigan University School of Medicine - Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Loren Weber
Additional Authors: Muhammad Ebad Rehman, MBBS; Gabriel Kousourou, DO; Prashant Patel, DO

Under the Surface: A Case of Scleroderma Renal Crisis in Systemic Sclerosis Sine Scleroderma

Systemic sclerosis (SSc) is an autoimmune disorder characterized by progressive fibrosis and collagen deposition in skin, blood vessels, and internal organs. Roughly 10% of all patients with SSc have systemic sclerosis sine scleroderma (ssSSc), which manifests as visceral disease without skin involvement. Although scleroderma renal crisis (SRC) is rare, only occurring in ~5% of SSc cases, our case highlights the importance of active renal surveillance of quiescent SSc or ssSSc patients.

A 52-year-old Caucasian female with a history of diffuse cutaneous SSc diagnosed six years ago and in remission for two years without active treatment, presented with one-week of myalgias, arthralgias, scleral icterus, diffuse abdominal discomfort and decreased oral intake. Her vitals were significant for a systolic blood pressure of 207 mmHg. Exam revealed scleral icterus but was otherwise unremarkable. Initial labs demonstrated an elevated creatinine, hemolytic anemia, proteinuria, hemoglobinuria, ANA titer of 1:320 with a speckled pattern, with anti-RNA polymerase III antibody present. A renal biopsy confirmed SRC. In addition to hemodialysis, an angiotensin-converting enzyme inhibitor (ACE-I) was initiated, with improvements in her clinical status.

ssSSc poses a diagnostic challenge for clinicians, given the lack of cutaneous findings of SSc. SRC rarely manifests in quiescent SSc or as the index sign of ssSSc. Untreated SRC carries significant morbidity and mortality, which emphasizes the need for a high index of suspicion for SRC when renal disease is paired with appropriate history and underscores the importance of active renal surveillance for clinicians caring for ssSSc or quiescent SSc patients.