ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 1 Category: Research

Institution: Ascension Crittenton Hospital – Rochester
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Mulham Shikh Hamdon
Additional Authors: Farrah Rajab, Sarwan Kumar

BEERs Criteria, Do We Apply it in Our Practice?

The Beers Criteria for Potentially Inappropriate Medication (PIMs) Use in Older Adults, devised in 1991, and last updated in 2015. This list serves as a guideline of medications contraindicated in patients older than 65.

The aim of this study is to determine the prevalence and types of PIMs used in patients at admission, during hospitalization, and at discharge. 100 patient charts were examined. Inclusion criteria were age >65, patients not in palliative/hospice care, and admitted to the hospital for at least 24 hours.

Results: Among the 100 patients evaluated, the prevalence of at least one PIM at admission was 42%, during hospitalization 55%, and 50% on discharged. The top two classes of PIM, were benzodiazepines (18%) on admission, 30% during admission, and 18% on discharged, and nonsteroidal anti-inflammatory drugs (7%) on admission, 16% during hospital course and 8% on discharge. Other drug classes of PIMs which used, antiarrhythmic (Diagoxin and Amidarone) (4%), first generation antihistamines (3%), Glyburide (1%), and alpha 1 blockers (3%).

57 of the 100 studied patients were readmitted to our service within one year. 54% (31) of the readmitted patients were previously discharged on at least one PIM. An odds ratio of 1.5 was found, representing a strong association between discharge on PIM and readmission. Examination of length of stay revealed that patients who were not on PIMS during hospitalization, stayed on average for 3.7 days. Those who were on PIM during hospitalization had a longer length of stay, with an average of 4.3 days.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 2 Category: Clinical Vignette

Institution: Ascension Crittenton Hospital – Rochester
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Toribiong Uchel
Additional Authors: Tancer, S.

Cardiac Arrest Secondary to Sorafenib, a Palliative Treatment

Introduction

Sorafenib is a non-selective, multi-kinase inhibitor that is used to treat renal cell carcinoma, thyroid cancer, and hepatocellular carcinoma (HCC). Its mechanism of action targets tyrosine kinase receptors and associated proteins and disrupts signaling pathways such as vascular endothelial growth factor (VEGF) and platelet-derived growth factor (PDGF) to limit cancer angiogenesis and tumor growth. Sorafenib has been associated with cardiotoxicity by affecting these same signaling pathways in the cardiomyocyte. We present the first ever reported case of a sudden cardiac arrest in a patient initiated on sorafenib as a palliative chemotherapeutic agent.

Case report

A 70-year-old man with a history of biopsy-proven diagnosis of HCC presented to the ED with an “irregular” heart rhythm discovered at an outpatient doctor’s office. The patient had been undergoing chemotherapy with sorafenib 200 mg BID since December 2017. Overnight, code blue was called due to pulseless electrical activity (PEA) arrest, with eventual ROSC after 11 minutes of compression and five doses of 1 mg epinephrine. An echocardiogram showed severely decreased LVEF of 20 to 25% with global hypokinesis. Ischemic workup was negative, and therefore was attributed to a side effect of sorafenib.

Conclusion

The case highlights the importance of reviewing potential side effects of medications. This is especially true in regards to medications that are being used as a palliative chemotherapeutic agent. In this patient, sorafenib was instituted for the HCC therapy in hopes of achieving remission, but instead caused a near-death episode.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 3 Category: Quality Improvement

Institution: Ascension Crittenton Hospital – Rochester
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Lucinda Wenzlick
Additional Authors: Danielle Fabry, Anubav Jain, Brandon Dmytruk

Improving Resident Error Reporting

This project's aim is to improve the number of hospital error reports generated by resident physicians and to incorporate error discussion as a part of daily rounds. Lack of error reporting by residents at Crittenton Hospital Medical Center (CHMC) was recognized by ACGME during a site visit by the CLER committee. In response to the committee's findings, the first PDSA cycle was used to guide and format this project. As part of root cause analysis, a survey was conducted to investigate the reasons that prevent residents from reporting errors. Over 30% of residents replied that they are, "Not sure what constitutes a medical error," as the reason limiting their reporting. Another 21% admitted that they are, "Unaware of the process that occurs after errors are reported." Based on the survey results, the first PDSA cycle successfully provided education to IM residents, which addressed the main insecurities and misconceptions regarding error reporting. A mock session was also provided to familiarize and guide residents through the process of reporting errors. Three months following the education intervention, resident error reporting improved five-fold, from one report per year to five reports in three months. To capitalize on this momentum, a second PDSA cycle focused on the remaining barriers to reporting errors. A multidisciplinary team was developed to address, investigate, analyze, and ultimately implement change in response to the error reported. Error reporting again improved among residents. Current PDSA cycle 3 aims at incorporating error reporting into daily round discussions and continued education.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 4 Category: Clinical Vignette

Institution: Ascension Crittenton Hospital – Rochester
Program Director: Sarwan Kumar, MBBS, FACP
Presenter: Joseph Zebelian
Additional Authors:

A Rare Cause of Stroke: Cadasil

Introduction:

Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy (CADASIL) is an inherited cerebral microangiopathy caused by a defect on the NOTCH3 gene which is critical for differentiation and development of vascular smooth muscles (VSMC).

Clinical presentation can vary, however five main symptoms have been commonly reported: migraine with aura, subcortical ischemia, apathy, cognitive decline and mood disturbances.

We are reporting a case of ischemic stroke in a young patient due to CADASIL.

Case:

48 years old male with past medical history of migraine presented with right arm weakness and slurred speech. Family history of CADASIL in the mother.

CT and MRI of the head confirmed the diagnosis of multiple cerebrovascular infarcts

Workup including TTE, TEE, telemetry, loop recorder and hypercoagulability screen were all negative. A MRA head/neck showed mild irregular narrowing of the posterior cerebral arteries bilaterally.

Patient improved and was sent to inpatient rehabilitation on aspirin and statin

Discussion:

CADASIL is diagnosed based on a combination of clinical findings and neuroimaging features, particularly when there is a positive family history for stroke or dementia. Diagnosis can be confirmed with genetic analysis or by biopsy.

Cerebrovascular accidents are the most frequent manifestations in CADASIL, occurring in 60-85% of patients with an estimated incidence of 10 per 100 patients where 67% present as lacunar strokes. These symptoms often present in the absence of conventional vascular risk factors in patients at a mean age of 49 years. Most¬ patients have two to five recurrent strokes over several years.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 5 Category: Clinical Vignette

Institution: Ascension Providence Hospital – Southfield
Program Director: Robert Bloom, MD, FACP
Presenter: Eric Hart
Additional Authors: Maria Markosyan MD, Michael Williams MD

Pacemaker Beware, You're in for a Scare: An Interesting and Rare Case of Pacemaker Endocarditis

Introduction:

Infective endocarditis is typically caused by Staphlococcus and Streptococcus species. However, in this case we describe Gemella haemolysans as the culprit organism. Gemella haemolysans is a gram-positive coccoid, facultative anaerobic organism found in the mucus membranes of humans. It is documented to cause infective endocarditis, but we present a unique case causing pacemaker endocarditis.

Case Report:

An 85 y/o African American female with PMH of HTN, CKD and permanent pacemaker initially presented with acute kidney injury secondary to dehydration. Following admission, patient developed fever and leukocytosis and subsequent blood cultures were 2/2 positive for Gemella haemolysans. TEE was performed which showed a filamentous highly mobile mass attached to the ventricular pacemaker. This clinical picture was concerning for pacemaker endocarditis per AHA guidelines. Due to comorbidities and pacemaker lead placed 25 years ago, it was decided to not remove pacemaker to prevent further complications. Patient was to be treated with IV penicillin for 6 weeks followed by oral suppressive therapy.

Conclusion:

This case demonstrates a unique organism, Gemella haemolysans, as a cause of endocarditis. While most instances occur on native or prosthetic valves, our case causing pacemaker endocarditis is rare in the literature. Further history revealed patient had dental work performed 1 month ago, providing further evidence to the case. The clinical situation was also important as risks to remove the wire outweighed benefits.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 6 Category: Research

Institution: Ascension Providence Hospital – Southfield
Program Director: Robert Bloom, MD, FACP
Presenter: Maria Karapetyan
Additional Authors: Hadeel Assad, Bianca Barbat, Arushi Hukku, Archana Balakrishnan, Robert Bloom

Contralateral Prophylactic Mastectomy, Social Economics, and Informed Medical Decision Making

Introduction:

The rate of contralateral prophylactic mastectomy (CPM) in the United States has more than tripled in the past decade, although the majority (69%) of women who undergo CPM have no major genetic or familial risk factors for it. We hypothesized that women who undergo CPM have a higher sense of loss aversion which may distort the risk-benefit ratio of CPM at a time when they are vulnerable because of fear and sense of loss of control.

Description:

We conducted a survey of 38 patients who underwent CPM and 28 patients who had unilateral breast surgery for mammary carcinoma diagnosed between 2011 and 2015, along with the control group without a history of cancer. Participants were excluded if they were carriers of deleterious gene mutations or had bilateral breast cancer prior to surgery. The groups were matched for age and cancer stage where appropriate.

Results:

Most women (92%) who underwent CPM felt that decrease in anxiety alone was a valid reason to have the procedure compared to 71% of women who had unilateral surgery ($p=0.04$) and 66% of women with no history of cancer ($p=0.02$). Participants who underwent CPM were less likely to bid in a theoretical office lottery where there was a risk of losing, compared to women without a history of cancer.

We were not able to demonstrate that women who chose to undergo CPM have a higher sense of loss aversion, however, our study confirms that anxiety is a major factor that could result in cognitive biases.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 7 Category: Clinical Vignette

Institution: Ascension Providence Hospital – Southfield
Program Director: Robert Bloom, MD, FACP
Presenter: Elise Landa
Additional Authors: Lauren Weiner MD, Prabhat Sinha DO, Delano Small MD

Pop Goes the…Lung?

Introduction

Extra-articular manifestations in rheumatoid arthritis (RA) are often reported. Rheumatoid nodules are common; however, pulmonary nodules are rare, occurring in less than 0.5% of cases. An even more uncommon complication is spontaneous pneumothorax secondary to rheumatoid pulmonary nodules in patients treated with methotrexate. The following case is a patient who experienced recurrent pneumothorax secondary to rheumatoid arthritis.

Case Report

Patient is a 75-year-old Caucasian male with past medical history of RA with severe extra-articular manifestations, who presented to the hospital on multiple occasions with dyspnea. His RA has been treated with methotrexate and prednisone therapy. Initial imaging showed bilateral pulmonary nodules up to 1.9 cm with bilateral pleural nodularity. Pleural biopsy revealed areas of xanthogranulomatous inflammation containing mononuclear and multinuclear histiocytic cells, consistent with rheumatoid nodules. Repeat CXRs and CTs revealed spontaneous pneumothorax. Over the course of several admissions he underwent bilateral pleurodesis, decortication, and VATS with mini thoracotomy. Continued complications required invasive interventions with final resolution of pneumothoraces.

Discussion

Recurrent spontaneous pneumothorax is a rare complication of rheumatoid arthritis. Pneumothoraces occur due to rupture of necrobiotic nodules adjacent to pleura. Methotrexate is a first line agent for RA, however it has not been proven to treat, and can even exacerbate extra-articular manifestations. Additionally, it has a high rate of pulmonary toxicity, leading to spontaneous pneumothorax. When this occurs, treatment with chemical pleurodesis is a relatively safe, effective and cost-effective treatment. A risk benefit analysis is needed to determine if continuation of methotrexate therapy is appropriate in these patients.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 8 Category: Research

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Luay Dawood
Additional Authors: Susanna Szpunar, PhD; Priya Nethala; Michael Kern, MD Regina Kurian, MD. Internal Medicine.

Risk Factors for Readmission in Patients with Diabetic Ketoacidosis

Introduction: Diabetic ketoacidosis (DKA) is a rare yet potentially serious hyperglycemic crisis that occurs in patients with diabetes mellitus. Efforts are needed to decrease DKA admissions and readmissions. These efforts should include the management of modifiable risk factors such as comorbid behavioral health problems, poor baseline glucose control and recreational drug abuse.

Objective: To determine the risk factors for 90-day all-cause readmissions in patients with an admission for hyperglycemia/diabetic ketoacidosis/HHS at St. John Hospital and Medical Center (SJH&MC).

Methods: We conducted a retrospective chart review of adult patients admitted for DKA during the period 7/1/2014-6/30/2017. Charts were reviewed for the number of readmissions within 90 days, demographics, comorbidities and other clinical factors.

Results: Of the 306 patients included, 56.6% were female, 68.2% were black and the mean age was 41.7. Of those with a readmission, 64.3% had one readmission, 21.4% had two readmissions and 14.3% had three or more readmissions. Patients with publicly-funded insurance were more likely to have at least one readmission than patients with private insurance or self-pay. Patients with a history of depression were more likely to be readmitted than those without depression. From multivariable logistic regression, after controlling for insurance status and congestive heart failure, the odds of readmission increased with depression, peripheral vascular disease and diabetes with complications .

Conclusion: To help reduce readmissions, diabetes control and screening for depression and/or obtaining a psychiatric evaluation may help reduce readmissions in these patients.

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Sunday Poster # 9 Category: Clinical Vignette

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Asim Mohamed
Additional Authors: Hasan Rana, MD. Raghavendra Kamath, MD, FACP

A Wedge Shaped Pulmonary Infarct Which Is Not due to an Embolism

Introduction: A wedge-shaped pulmonary infarct suggests a pulmonary embolism as the most likely etiology. However, when an individual with no risk factors for venous thromboembolism develops an infarct, other etiologies must be explored.

Case: A 34 year old male with a history of right nephrolithiasis presented with a complaint of right flank and chest pleuritic pain for one day. He had used cocaine three days prior. He denied venous thromboembolic(VTE) risks factors. Physical examination was unremarkable. Labs included a white blood count of 12.4 (Neutrophils 79%), a normal urinalysis, negative pro-calcitonin level and positive urine toxicology for cocaine and opiates. Chest X ray showed right basilar scarring versus atelectasis. Computer tomography(CT) of the abdomen showed trace right pleural effusion with a wedge shaped hazy airspace consolidation in the right lower lobe. Chest CT angiography showed a wedge infiltration of the right lower lobe associated with pulmonary emphysema, but no pulmonary embolism.

The patient received supportive care with fluids, analgesics, and antibiotics for possible pneumonia. After considering the findings and not identifying another etiology, we concluded his presentation was from cocaine induced pulmonary infarct.

Discussion: A wedge shaped pulmonary opacity is usually suggestive of pulmonary infarct from VTE. However, other etiologies must be explored especially with a history of cocaine use. Cocaine induced lung injury, “crack lung,” usually presents as diffuse alveolar damage and hemorrhagic alveolitis. However, solitary lesions and infarcts have been reported and attributed to direct toxicity of cocaine, cocaine metabolites and its vasoconstrictive effects.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 10 Category: Clinical Vignette

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Abdulla Nasser
Additional Authors: Tarik Hadid MD

Disseminated Thrombosis as a Complication of Primary Familial Polycythemia

Polycythemia is a myeloproliferative neoplasm characterized by an increased red blood cell production.

It is classified as Primary (low-normal erythropoietin (EPO)) and secondary (high EPO). We present a rare case of primary familial polycythemia (PFP).

Case report:

A 34-year-old man presented with dyspnea, pleuritic chest pain and bilateral calf muscle pain for 2 weeks. Physical exam was unremarkable. Laboratory studies showed a hemoglobin 19.1g/dL and a CT-angiography of the chest showed bilateral pulmonary embolism. A Transthoracic and transesophageal echocardiogram revealed right ventricular dilatation and a freely mobile right atrial mass protruding through a patent foramen ovale (PFO) to the left atrium. A lower extremity Doppler ultrasound showed bilateral deep vein thrombosis. He was started on anticoagulation and underwent cardiac embolectomy and closure of PFO. EPO was low-normal at 5 mUnit/mL. Although JAK2 mutation was negative, EPO receptor (EPOR) mutation was detected, and therefore he was diagnosed with PFP. In addition to warfarin, he was initiated on aspirin, hydroxyurea, and phlebotomy with an improvement of his hemoglobin.

Discussion:

More than 96% of Primary polycythemia cases are caused by JAK2 Mutation, with additional 2-3%caused by its variant, JAK2 exon 12 Mutation. Only 1% are caused by EPOR mutation. This mutation is typically inherited in an autosomal dominant manner but can rarely occur de-novo (our patient). Treatment includes life-long anticoagulation (if thrombosis is present), aspirin, phlebotomy and sometimes hydroxyurea, interferon and/or JAK inhibitors such ruxolitinib. If appropriately treated, patients should have a near-normal life expectancy.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 11 Category: Clinical Vignette

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Duy Nguyen
Additional Authors: Dr. Humaira Rizvi

A Rare Case of Granulomatous Invasive FungalL Rhinosinusitis Associated with Chronic Nasal Decongestants Use

Introduction: Granulomatous Invasive Fungal Rhinosinusitis (GIFR) is a rare and indolent disease. GIFR has been described in a patient with history of intranasal cocaine use, but none has described an association with chronic nasal decongestants use.

Case Description: Patient is a 60 year old female with past medical history of hypertension presents with stroke-like symptoms. Patient also reported chronic sinus congestion with pain behind the left eye for approximately 9 months, treated with nasal decongestants. On admission, physical exam was significant for left eye proptosis with periorbital edema and tenderness over the periorbital area and the left maxillary sinus. Initial labs - CBC, CMP, and RUDS were unremarkable. CT of the head showed a mass in the paranasal sinus with extensive bony erosion. Aspergillus Galactomannan antigen was negative and 1-3 beta-d-glucan was positive. Patient underwent ENT surgery for debridement and biopsy which was consistent with GIFR. Tissue sample sent for PCR was positive for Aspergillus flavus. Patient was started on amphotericin B, which was switched to Voriconazole on discharge. Patient was successfully managed after surgery with two months of voriconazole without signs of clinical recurrence.

Discussion: Invasive Fungal Rhinosinusitis can be classified into three categories - acute invasive, chronic invasive, and granulomatous. Case reports regarding the association of intranasal cocaine use and GIFR suggest that mucosal ulceration and necrosis caused by cocaine increases the risk for invasive fungal rhinosinusitis. Our patient history of chronic nasal decongestants use may suggest a risk factor for the development of GIFR.

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Sunday Poster # 12 Category: Clinical Vignette

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Zaid Noori
Additional Authors: Rebecca Witherel MD, Joel T Fishbain MD

Severe Pneumocystis jirovecii Pneumonia During Treatment for Cushing's Syndrome

Introduction:

Pneumocystis jirovecii pneumonia (PCP) was a rare opportunistic infection until the AIDS epidemic. PCP in non-HIV patients develops in patients receiving high dose steroids, various chemotherapeutic and immunosuppressive agents. We report a case of severe PCP during therapy for Cushing's syndrome.

Case presentation:

A 67 year old female was recently diagnosed with an ACTH producing carcinoid tumor of the lung. Treatment was initiated with mifepristone as an outpatient but ketoconazole was started as an inpatient. She was initially admitted for diabetic ketoacidosis but two weeks after starting the ketoconazole she developed fevers, respiratory distress, hypoxia and rapidly progressive pulmonary infiltrates on chest x-ray. Chest CT imaging demonstrated extensive ground-glass opacities. Based on her history, a very high LDH level and deteriorating course she was empirically placed on high dose sulfamethoxazole/trimethoprim. A diagnosis of PCP was confirmed by a markedly elevated beta-D-glucan and positive sputum PCR for Pneumocystis jirovecii. She developed acute respiratory distress syndrome requiring a prolonged course of intubation. She was subsequently extubated and transferred to a long term acute care facility.

Discussion:

Unlike HIV patients who present with a more indolent course, non-HIV patients often have a rapidly progressive course. The most common time frame for patients on high dose steroids to develop symptoms is during the steroid taper. Our patient presented during treatment for endogenous production of cortisol with documented lower levels of cortisol. Early recognition and therapy is critical as this condition results in significant morbidity and mortality.

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Sunday Poster # 13 Category: Clinical Vignette

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Karim Saleb
Additional Authors: Mehmet Alpas, MD. Sai Katta, MD. Sohail Hassan, MD, FACC

A Spongy Heart; Left Ventricular Non Compaction Cardiomyopathy Manifesting as Third Degree AV-Block

Left Ventricular Non-Compaction (LVNC) cardiomyopathy is a rare form of cardiomyopathy that is categorized as “Unclassified” cardiomyopathy. It is characterized by the presence of myocardial trabeculations and deep alternating trabecular recesses. LVNC has commonly been reported as a familial, inherited disorder, however, an acquired form of the disease has been described, particularly in athletes, sickle cell disease, and pregnancy. The prevalence of LVNC remains uncertain but has been reported to range from 0.014 - 1.3% in patients undergoing echocardiography.

Our patient is a 43-year-old previously healthy female. She was referred to our facility to undergo an exercise stress ECG due to multiple episodes of substernal chest pain. The stress test was canceled in the initiation phase after she was found to have asymptomatic third-degree AV block on cardiac monitoring. Transthoracic echocardiography showed evidence of trabeculations in the left ventricular myocardium with preserved ejection fraction. Cardiac MRI subsequently confirmed LVNC. The patient was further evaluated by the cardiac electrophysiology team and an Implantable Cardioverter Defibrillator device was inserted. The patient was later discharged home, after no further events, to be started on oral anticoagulation as an outpatient.

LVNC is a rare disorder that is typically identified on echocardiography. The clinical spectrum of the disorder ranges from being completely asymptomatic to progressive left ventricular systolic impairment, a tendency to fatal arrhythmias and systemic thromboembolic events. Prompt diagnosis is essential because of the need for aggressive treatment, close follow-up, and clinical screening of all first-degree relatives of affected patients.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 14 Category: Clinical Vignette

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Amreeta Sharma
Additional Authors: Sharma, Amreeta Vashti MD., Mamta Sharma MD, Yacoub, Michael MD Internal Medicine, St. John Hospital and Medical Center, Grosse

Autoimmune Uveomeningeal SyndromeTriggered by Mosquito Bites

Introduction: The uveo-meningeal syndromes are a group of disorders with uveal, retinal and meningeal findings whose etiologies include infectious, neoplastic, inflammatory or autoimmune.

Case: A 22 year-old American Indian male presented with headaches and fevers for one week. Travel history was significant for camping in Northern Michigan where he was ravaged by mosquitos. Vital signs were significant for tachycardia, and physical exam showed photosensitivity with no meningeal signs. A CT head was negative and he was discharged home. Patient returned the next day with worsening headaches, bilateral eye pain and a temperature of 101.8 F. Labs were significant for ESR of 40. CSF analysis showed 66 WBCs and 19% PMNs, and notably negative for Lyme, West Nile and Herpes Simplex viruses. Patients symptoms continued to worsen and he developed increased ocular erythema. Tonometry revealed a pressure of 22 (left) and 13 (right). Woods lamp and fluorescein uptake tests were normal. He evaluated by ophthalmology and diagnosed with pan-uveitis.

Discussion: Vogt-Koyanagi-Haradata (VKH) Syndrome is among the inflammatory uveo-meningeal syndromes; characterized by pan-uveitis, neurologic impairment and skin changes. The commonly affected races includes American Indians. The four phases are: prodromal (headaches and CSF pleocytosis), uveitic, convalescent and cutaneous. An autoimmune attack against melanin containing cells in the cochlea and meninges are responsible for these symptoms. Clinicians should keep in mind that red eyes in a patient with aseptic meningitis could be due to a uveomeningeal syndrome and not just due to fevers.

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Sunday Poster # 15 Category: Clinical Vignette

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Aryan Shiari
Additional Authors: Deniz Alpas, MD, Derek Tsao MD, Joel Fishbain, MD, FACP

Methicillin-Resistant Staphylococcus aureus (MRSA) Bacteremia due to Prostate Abscess

Prostatic abscesses are an uncommon infection that can be challenging to differentiate from other urinary tract infections in men. While E coli and other enterobacteriaceae are the most common pathogens, we identified a case due to MRSA.

Case:A 76-year-old male with a past medical history of gastrointestinal stromal cancer diagnosed in 2006 had a recent hospitalization for dyspnea secondary to left-sided pleural effusion. He received treatment for community-acquired pneumonia along with a thoracentesis for parapneumonic effusion. He completed antibiotic therapy and his only significant microbiologic finding on that admission was a urine culture with 100-10,000 colonies of MRSA. Three months, later he was admitted for an episode of pre-syncope and fever of 2 days duration. The patient complained of no additional symptoms including no symptoms of dysuria or changes in urinary frequency. Three sets of blood cultures were positive for MRSA but his urine culture was negative on the second admission. A CT scan of chest/abdomen/pelvis revealed two cystic structures (3.5 and 3.6 cm) in the right and left prostate that grew MRSA from an aspirate.

Discussion: MRSA has become a common community and healthcare associated pathogen with a variety of organ site infections, abscesses and intravascular infections. Prostate abscesses from MRSA have rarely been reported. As with all S. aureus infections, it is critical to identify the source of infection, achieve adequate source control and provide sufficient antimicrobial therapy. Although the initial source of infection for our patient was unknown, a careful investigation identified this unusual location.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 16 Category: Clinical Vignette

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Omama Siddiqui
Additional Authors: Safa Maki, MD, MPH; Shyam Moudgil, MD, FAAN; Elizabeth Bankstahl, MD, FACP.

Rapidly Progressive Myelopathy due to Fibrocartilaginous Embolism of the Spinal Cord

Introduction: Fibrocartilaginous embolization is a rare cause of spinal cord infarction. It can occur with strenuous activities that increase intradiscal pressures. Patients typically present with acute and rapidly progressive motor, sensory, and/or autonomic dysfunction.

Case: A 57-year-old male training for a triathlon presented with sudden onset and crushing interscapular back pain. Within four hours, he progressively developed quadriparesis, dysesthesias, constipation, and urinary retention. Patient was hemodynamically stable and basic labs were unremarkable. MRI of the spine revealed T2 hyperintensity at C4-T1 concerning for inflammation or infarction as well as C5-C6 disc osteophyte complex with mild spinal stenosis. Inflammatory causes were considered unlikely given the acuity of symptoms, lack of contrast enhancement on MRI, normal CSF analysis, and minimal response to empiric corticosteroids that were administered for presumed transverse myelitis. Other potential etiologies including trauma, significant disc compression, infection, demyelinating diseases, nutritional deficiencies, and paraneoplastic syndromes were eliminated with appropriate testing; yielding spinal cord infarction as the diagnosis of exclusion. CTA abdomen and spinal angiogram ruled out vascular causes of infarction including arteriosclerosis, aortic pathology, and AVMs. Given this patient's recent strenuous physical activity and underlying degenerative disc disease, it was concluded that a fibrocartilaginous embolus led to the spinal cord infarction.

Discussion: Spinal cord infarction due to fibrocartilaginous emboli is rare but likely underdiagnosed and possibly misdiagnosed as a demyelinating disease due to overlapping clinical presentation. Increasing awareness of this condition may spare unnecessarily prolonged immunosuppressive therapy and help establish the true incidence, proper diagnosis, and management plan.

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Sunday Poster # 17 Category: Clinical Vignette

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Photios Vassilyadi
Additional Authors: Shiari, A, MD; Hughes C, MD, FACP

Stop Calling Me Crazy! – The Unusual Course of NMDA-Receptor Encephalitis

Background: Over the past decade there have been increasing reports of autoimmune encephalitis, most commonly caused by anti-NMDA-receptor antibodies. It is predominantly described in women and can be associated with ovarian teratoma. We present a case of anti-NDMA-receptor encephalitis from onset to complete resolution.

Case Report: A 54-year-old female with no medical history presented with status epilepticus. Two weeks earlier she had been admitted to a psychiatric unit for acute psychosis-like symptoms and personality change. Her mentation deteriorated until she became catatonic, developed seizures and was intubated due to unresponsiveness. Lumbar puncture was performed and cerebrospinal fluid (CSF) demonstrated lymphocytic pleocytosis, oligoclonal bands and anti-NMDA-receptor antibodies. Brain MRI and whole-body CT were normal. EEG showed severe encephalitis without epileptogenic foci. She received five days of high-dose solumedrol and five days of intravenous immunoglobulin. She remained encephalopathic with oral-lingual-facial dyskinesia and dysautonomia. She began treatment with weekly Rituximab, which improved mentation. After four weeks of therapy, repeat CSF studies demonstrated absence of anti-NMDA-receptor antibodies. After several weeks of rehabilitation, symptoms completely resolved and she returned to normal activities of daily living.

Discussion: The complete clinical course of NMDA-receptor encephalitis is not well documented. Clinical presentation varies from acute psychosis to status epilepticus, coma and death. This disorder can easily be confused with acute psychosis and many patients are placed in psychiatric facilities. It is imperative for the clinician to recognize this condition as non-psychiatric and initiate prompt therapy with intravenous steroids and immunoglobulin. Severe cases have responded to Rituximab.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 18 Category: Quality Improvement

Institution: Ascension St. John Hospital – Grosse Pointe
Program Director: Raymond Hilu, MD, FACP
Presenter: Matthew Wilkins
Additional Authors: Raul Davaro, M.D, Leonard Johnson MD FACP

Use of a Standardized Scoring System to Predict Mortality Rate Among Patients Admitted to a Tertiary Care Center with Febrile Neutropenia

Introduction:

Febrile neutropenia (FN) remains a serious complication of chemotherapy, current standard of care dictates hospitalization taxing healthcare resources and increasing risk of nosocomial infections. Multinational Association for Supportive Care in Cancer (MASCC) algorithm defines a score which predicts less than 10% complication rate. We believe a CQI/EBM program based on the MASSC algorithm can promote early discharges or outpatient management for low-risk patients.

Methods:

A retrospective analysis of data collected from January 2013 to June 2016 was performed on admissions of FN to St. John Hospital. Patients were classified into hematological or solid malignancies, MASCC score was calculated categorizing patients as high or low risk. Further analysis was conducted comparing length of stay (LOS) and mortality.

Results:

100 cases of FN, 52 hematological malignancies, 32 low risk patients with average LOS 6.75 days and mortality rate of 6.25%, 20 high risk patients with average LOS 16.1 days and mortality rate of 25%. 48 solid malignancies, 24 classified as low risk patients with average LOS 3.95 days and zero deaths, 24 high risk patients with average LOS 7.46 days and mortality rate of 33.3%.

Discussion:

Outpatient management for low risk FN has become increasingly appealing as it offers patients convenience, reduced nosocomial infections and economic benefits. Our data demonstrated that low risk MASCC score predicted overall low mortality with lower LOS. By incorporating the MASCC score during admission, high-risk patients can be entirely managed inpatient whereas low-risk patients may be discharged early or managed as outpatients.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 19 Category: Clinical Vignette

Institution: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Majd Khasawneh
Additional Authors:

An Unforeseen Complication: A Case of Methicillin-Resistant Staphylococcus aureus Endogenous Endophthalmitis

Introduction

Endopthalmitis is a sight-threatening emergency .Most cases are diagnosed in immunocompromised patients or intravenous drug users. We report a case of endogenous Methicillin-Resistant Staphylococcus Aureus (MRSA) endopthalmitis in a patient with disseminated MRSA infection.

Case Presentation

A 42-year old female with a history of intravenous drug use presented to the hospital complaining of acute low back pain for 4 days. On physical examination, she was tachycardic and febrile. Point tenderness over the lumbar spine at the level of the iliac crest was noted. Initial labs revealed a white blood cell count of 28x109/L.

A lumbar spine magnetic-resonance image demonstrated an L2-L3 epidural abscess. A chest computed-tomography scan revealed bilateral septic pulmonary emboli. Intravenous Vancomycin and Piperacillin-Tazobactam were initiated. Blood cultures were positive for MRSA. On day four of the admission, the patient started complaining of blurred vision and floaters in her right eye. Reduced visual acuity was noted. A fundoscopic examination revealed right eye vitritis with inferior and nasal vitreous opacities and no hemorrhage. Topical moxifloxacin and atropine were initiated, followed by intra-vitreal injections of Vancomycin and Ceftazidime. Vitreous and aqueous cultures were negative. Within days, ocular examination showed significant improvement and consolidation of the vitritis, and topical steroids were started. She was discharged on 6 weeks of intravenous Vancomycin.

Discussion:

Endogenous Endophthalmitis is an ophthalmic emergency. Early recognition of this emergency to allow timely initiation of intra-vitreal antimicrobial therapy is an absolute necessity, especially in populations at risk for resistant pathogens such as MRSA and fungal infections.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 20 Category: Clinical Vignette

Institution: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Beatrice Lai
Additional Authors: Ladkany, Rand

Rare Metastases in the Most Common Female Cancer

Breast cancer is the most common cancer in women worldwide, affecting 1 out of every 8 women in their lifetime. Breast cancer commonly metastasizes to bone, lungs, liver and brain. However, gastric and ocular metastases are very rare. We report a case of a female who presented for orbital pain and fatigue after a single episode of hematemesis. The patient was found to be profoundly anemic on labs and was guaiac positive on rectal exam. Her physical exam was also notable for a large breast mass and several diffuse fleshy papules on her skin. The patient was treated with multiple RBC transfusions. Work-up of her breast mass revealed primary breast cancer with metastases to multiple organ systems. EGD was done for evaluation of hematemesis, which revealed biopsy-positive adenocarcinoma from breast primary. An orbital MRI to evaluate orbital pain was significant for thickening of bilateral lateral and inferior rectus muscles with signal abnormalities of the optic nerve. Skin biopsies were positive for infiltrating carcinoma of breast primary. Bone surveys were consistent with lytic changes diffusely indicative of bony metastases and a bone marrow biopsy was positive for metastatic adenocarcinoma with multi-lineage hematopoiesis virtually absent. The patient stabilized after treatment of anemia and she was discharged to complete further staging and treatment with oncology. Though gastric and ocular metastases are rare in breast cancer, it is important to recognize and research, as they may be the primary symptoms patients present with.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 21 Category: Clinical Vignette

Institution: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Marina Maraskine
Additional Authors: Sami Zarouk, Steven Timmis

A Rare Cause of Non-Ischemic Cardiomyopathy: Isolated Cardiac Sarcoidosis

A 52 year-old male with a seventeen year history of hypertension presented to the emergency department with 2 weeks of progressive chest pain, dyspnea, and edema. Blood pressure was 169/131 mmHg with bibasilar pulmonary rales and peripheral edema noted on examination. Electrocardiogram was without ischemia or conduction abnormalities. Chest x-ray showed mild congestive heart failure. Echocardiogram revealed left ventricular ejection fraction of 30% with diastolic dysfunction. Cardiac catheterization demonstrated normal coronary arteries. Lisinopril, carvedilol, furosemide, and spironolactone were used with difficult blood pressure control. He had a negative work up for primary hyperaldosteronism, pheochromocytoma, and renal artery stenosis by doppler. Cardiac MRI revealed patchy delayed gadolinium enhancement, suggestive of an infiltrative process. Cardiac PET was suspicious for sarcoid infiltration involving the distal anterior wall and extending into the apex. He had normal calcium, CRP, ESR, angiotensin converting enzyme, and dihydroxyvitamin D levels. CT scan of the chest was unremarkable for pulmonary disease. Ophthalmological and dermatological examinations were negative for extra-cardiac involvement. Endomyocardial biopsy was negative for non-caseating granulomas or amyloidosis and demonstrated only fibrosis. It was opted to initiate prednisone therapy with follow up outpatient cardiac PET imaging.

Clinically apparent cardiac sarcoidosis is present in 5% of patients with known sarcoidosis. However, the prevalence of isolated cardiac disease is unknown. The rarity of isolated cardiac sarcoidosis raises the dilemma of treatment based solely on imaging without a definitive tissue diagnosis as, unfortunately, endomyocardial biopsy has low yield with a sensitivity of only 20%.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 22 Category: Clinical Vignette

Institution: Beaumont Hospital – Royal Oak
Program Director: Nancy Crossley, MD, Member
Presenter: Abena Owusu-Banahene
Additional Authors: Dilip Khanal, M.D.

Rhinovirus: The Red Herring

Neutropenic fever is commonly seen in patients undergoing chemotherapy for hematologic malignancies. Etiology is diverse, and lack of appropriate treatment can be quickly life threatening.

A 28-year-old woman with B-cell acute lymphoblastic leukemia (ALL), undergoing chemotherapy, presented with fever for two days along with nausea and mild headache. Physical examination was unremarkable except for sinus tachycardia. Labs revealed WBC count of 0.9 with neutrophils of 0.8. Chest X-ray was clear. She was started empirically on IV Cefepime and IV Vancomycin. Respiratory virus panel was positive for rhinovirus. Blood and urine cultures remained negative. Fever persisted despite initial improvement in general well-being, with temperatures up to 105º F. Bactrim, acyclovir and fluconazole were added to antibiotic regimen on day 4. Her condition declined with increasing cough, shortness of breath and hypoxemia. Repeat chest x-ray was unremarkable. Subsequently done CT scan of chest revealed bilateral, lower lobe predominant, ground glass opacities. Bactrim was replaced with azithromycin due to suspicion of atypical pneumonia. But she continued to worsen. Bronchoscopy was done and bronchoalveolar lavage (BAL) fluid stain revealed Pneumocystis jirovecii. Beta-D-Glucan test resulted positive. Bactrim was restarted at higher dose along with prednisone taper with improvement in her clinical condition.

Pneumocystis jirovecii commonly causes infection in immunocompromised individuals. It can sometimes present with minimal initial respiratory symptoms and normal chest radiograph. Organisms isolated from initial workup may not always represent the true underlying etiology and should be interpreted with caution, especially if clinical course is not consistent.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 23 Category: Clinical Vignette

Institution: Beaumont Hospital – Royal Oak
Program Director: Nancy Crossley, MD, Member
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No Time to Waste with Fibrillary Glomerulonephritis

Introduction

Fibrillary Glomerulonephritis (FGN) is a rare glomerular disease characterized by the presence of elongated, randomly arranged microfibrils in the mesangium and/or glomerular capillary wall with negative reactivity to Congo red. We describe a case of rapidly progressing adult FGN requiring hemodialysis within 10 weeks of presentation.

Case

56 y/o Caucasian female with history of celiac disease, pituitary microadenoma, presented with worsening pedal edema, foamy urine and elevated blood pressures for 4 weeks. Vitals were 186/78 mmHg, 74/min pulse. Physical examination showed anasarca. Labs showed BUN 31, Creatinine 2.58, GFR 23. Urinalysis showed 4+ proteinuria, hematuria, granular casts with 24-hour urine protein 9.125 grams. ANA was positive. Complement, C-ANCA, P-ANCA were normal. Biopsy on light microscopy showed glomerular sclerosis with crescents, mild to moderate cellular proliferation, increase in mesangial matrix and negative Congo red stain. Electron microscopy revealed haphazard, straight, nonbranching fibrils of 10-14 nm diameter in the mesangium. Work up for occult malignancy was negative.

She was started on prednisone. On readmission, creatinine was 5.06 and GFR was <10. Decision was made to start rituximab. Within 10 weeks from symptom onset, hemodialysis for biopsy proven FGN was initiated.

Discussion

FGN is a rare disease seen in 0.5-1% of native kidney biopsies. FGN can rapidly progress to end stage kidney disease (ESKD) within 2 years of diagnosis as optimal management is unknown. Our case highlights these features, with failing immunosuppressive therapy. Will early diagnosis and management delay the progression to ESKD?

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 24 Category: Clinical Vignette

Institution: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Solomiia Savedchuk
Additional Authors: Luis Ospina, MD

Diagnostic Dilemma in a Case of Hyperadrogenism - Which Ovary to Spare?

Sertoli-Leydig cell tumors constitute <0.5% of ovarian neoplasms and if functionally active present with virilization. Diagnosis is usually made on clinical grounds and by significantly elevated serum testosterone in patients with adnexal mass on imaging. We report a case of virilized female with very high testosterone without evidence of ovarian mass on ultrasound. Ovarian sampling proved difficult to lateralize the lesion.

A 40 yo female was referred for endocrine consultation regarding excessive hair growth and deepening of her voice of 2 years duration. She also reported oligomenorrhea, increased libido and muscle mass. Previously diagnosed and treated for PCOS with OCP, metformin and spironolactone without improvement. Clinical exam confirmed the findings of virilization. Labs revealed total testosterone of >800, DHEAS, 17-OH progesterone, LH, FSH within normal limits. Abdominal CT was negative for adrenal mass, transvaginal pelvic ultrasound showed normal size ovaries with no obvious mass. However, given very high testosterone levels, a testosterone-producing tumor was strongly suspected. Patient underwent ovarian vein catheterization with testosterone measurements. Left ovarian vein could not be sampled. Testosterone value on the right side was significantly elevated. Study was repeated at Mayo Clinic, unfortunately with similar results. Patient then underwent right oophorectomy with the finding of Sertoli-Leydig cell tumor. Postoperatively serum testosterone was normalized and clinical symptomatology significantly improved.

Any woman with virilization should be evaluated for the presence of an ovarian tumor regardless of imaging studies and even if vein samplings are not conclusive as in this case. Surgical removal is curative in these patients.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 25 Category: Clinical Vignette

Institution: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Christienne Shams
Additional Authors: Lisa Cohen, MD

Anoxic Brain Injury Induced Diabetes Insipidus

Central diabetes insipidus (DI) is defined as a lack of antidiuretic hormone (ADH) production resulting in the loss of the ability to concentrate urine and regulate the body's fluid status. Common causes include; malignancy, trauma, inflammatory and autoimmune conditions. Cardiac arrest is not commonly implicated.

45y.o. male with a PMH of heroin use presented to the ER after being found unresponsive. He was found to be in PEA arrest on arrival of EMS. ROSC was achieved after 3 rounds of narcan, epinephrine and CPR, but went back into PEA arrest twice more prior to arrival at the hospital. Stat head CT on presentation showed global anoxia. Initial BMP demonstrated hypernatremia but oliguric urine output. The hypernatremia persisted despite appropriate free water repletion but responded to DDVAP based on urine output, which significantly increased on admission day 2. Unfortunately, the extent of the anoxic brain injury was too severe and care was withdrawn per his family's wishes.

Rates of central DI following successful CPR vary between 12-21%. Though the brain is sensitive to hypoxic conditions, the hypothalamus is relatively resistant to hypoxic conditions given an extensive collateral vascular network and DI develops only after extensive destruction of the hypothalamus. In many cases, such as the above, the diagnosis is masked by an oliguric AKI due to diminished renal flow following the arrest. This case highlights the importance of considering DI following CPR, even in the setting of presumed oliguric AKI.

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Sunday Poster # 26 Category: Clinical Vignette

Institution: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Stacy Willner
Additional Authors: Mohammad Muhsin Chisti, MD

A Case of Hemophagocytic lymphohistiocytosis in an Unlikely Host

HLH, or hemophagocytic lymphohistiocytosis, is an aggressive, life-threatening syndrome that results from excessive immune activation. It is most frequently reported in infants from birth to 18 months of age but can also be observed in children and adults of all ages. HLH is a very rare syndrome, with an extremely variable presentation; this combination often leads to a delay in diagnosis and treatment, which can be detrimental for the patient.

We present the case of an 84-year-old male who presented to the hospital in May 2018 for shortness of breath. On arrival he was found to be hypoxic at 84% on room air. Labs showed severe thrombocytopenia. A CT of the chest was negative for any acute process. A bone marrow biopsy was performed as the peripheral smear showed abnormal cells that were unable to be characterized by the hematopathologist. The patient continued to deteriorate, requiring increasing amounts of oxygen and eventual admission to the medical intensive care unit. The bone marrow biopsy then came back showing CMML-2 and hemophagocytes. He was then diagnosed with HLH and began treatment per the HLH-94 guidelines with Decadron and Etoposide.

This case illustrates the presentation and diagnosis of HLH in an elderly patient, one of the least likely patient populations to get HLH per documented literature thus far. Further showing, HLH should remain a consideration for acutely ill patients, regardless of age, presenting with multi-organ involvement and no clear explanation, especially those with risk factors, such as infection, malignancy, rheumatologic disorders, and immunodeficiency.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 27 Category: Clinical Vignette

Institution: Beaumont Hospital – Royal Oak
Program Director: Sandor Shoichet, MD, FACP
Presenter: Chengda Zhang
Additional Authors: Shaiva Ginoya, Warren B. Fields

Acute Hearing Loss: A Rare Presentation of Heroin Intoxication

Sensorineural hearing loss is a rare presentation of heroin intoxication and can result in permanent deafness.

A 20-year old male with history of intravenous drug use was brought to the emergency room because of bilateral hearing loss and slurred speech. He had just been released from jail the previous day, and was found unresponsive after injecting heroin. He regained consciousness, but began to experience severe bilateral hearing loss and slurred speech. In the hospital, he was hypotensive and febrile. Ear exam did not reveal any external or middle ear pathology. Laboratory studies included a WBC 13.4 bil/L, creatine kinase 1726U/L, B-type natriuretic peptide 171pg/mL and procalcitonin 1.09ng/mL. Blood cultures were negative. Head CT was normal, and an echocardiogram demonstrated global hypokinesis of the left ventricle with ejection fraction of 35%. He was treated with naloxone, IV fluids and norepinephrine, and was admitted to the intensive care unit. The next day, he was hemodynamically stable, and audiology studies demonstrated borderline to mild hearing loss bilaterally. His hearing recovered completely two days later and he was discharged home.

Sudden sensorineural hearing loss is a rare presentation of heroin overdose. It has been reported especially in young males with the overdose occurring during a relapse after a period of abstinence. Treatments including prednisone and vasodilators have been reported, but have unclear efficacy. Suspected mechanisms include hypotension-related over-activation of opioid receptors or concomitant use of quinine. Our patient improved significantly with conventional treatment targeting hypotension and the opioid overdose.

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Sunday Poster # 28 Category: Clinical Vignette

Institution: Central Michigan University – Saginaw
Program Director: Sethu Reddy, MD, MBA
Presenter: Chandramouli Mandalaparty
Additional Authors: Phoo Pwint Nandar, MD, Mohd Shaffi Kanjwal, MD

"So Much Flak for Using Talc"

Pulmonary intravascular talcosis is rare but seen with intravenous (IV) drug users who inject recreational medications intended for oral use. Here, we present an IV drug user with septic emboli and currently at a high risk for pulmonary talcosis.

A 25-year-old Caucasian Female with a past medical history of long-term IV drug use, mitral valve endocarditis, presented with septic shock secondary to tricuspid valve endocarditis with MRSA bacteremia. She complained of hemoptysis, chest discomfort, and dyspnea. She stated that she crushes crack cocaine and heroin and uses them intravenously. Computed Tomography Angiography (CTA) Chest revealed extensive pulmonary septic emboli and ground glass opacities with multiple cavitary lesions consistent with talcosis. Computed Tomography (CT) Abdomen revealed hepatomegaly and splenomegaly. Transthoracic Echocardiography (TTE) and Transesophageal Echocardiography (TEE) revealed a moderate-size, mobile vegetation on the tricuspid valve with severe tricuspid regurgitation. The patient was deemed to be a poor surgical candidate hence she was sent home to finish a six-week course of IV antibiotics. Previous literature revealed that patients with pulmonary talcosis had initial exposure to talc multiple years prior to presentation. She is at increased risk of pulmonary talcosis given her history and CTA Chest/CT Abdomen findings. Furthermore, bronchoscopy needs to be performed to assess for granulomatous disease.

When evaluating patients who are intravenous drug users, a high index of suspicion should be raised for pulmonary talcosis and a thorough history and physical examination is imperative. Also, clinicians should be more aware of radiological findings of pulmonary talcosis to promote immediate management.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 29 Category: Clinical Vignette

Institution: Central Michigan University – Saginaw
Program Director: Sethu Reddy, MD, MBA
Presenter: Phoo Pwint Nandar
Additional Authors: Abhishek Bhandiwad, Parthiv Amin.

Not All Glitters are Gold: Not All Spikes are Pacemaker

Atrial and ventricular pacing can be seen on the electrocardiogram (EKG) as a pacing stimulus (spike) followed by a P wave or QRS complex, respectively. Here, we present a case of interesting EKG spikes.

This EKG was obtained from a 63-year-old female with history of obstructive sleep apnea, dyslipidemia, patent foramen ovale and bipolar disorder who was admitted to hospital for recurrent syncopal episodes. Extensive neurologic and cardiovascular workups were unremarkable except for continuous rhythm monitoring on telemetry and electrocardiogram showing multiple spikes with the amplitude of 5mm and the frequency of every 0.08 second in both limb leads and chest leads. Cardiology was consulted for evaluation for possible pacemaker malfunctioning. Patient was completely asymptomatic and no previous history of pacemaker placement. The repeat EKGs showed the same findings. Upon furthering questioning, she disclosed that she had a bladder stimulator for urinary incontinence recently. Dose adjustment for oxcarbazepine was made and loop recorder was implanted before patient was discharged home. Patient didn't have any more syncopal episode since oxcarbazepine dosage adjustment. Interpretation of loop recorder on follow up visit was normal.

A bladder stimulator is a neurotransmitter device, which transmits mild electrical impulses through a lead wire, provides bladder control. The use of these devices is likely to be encountered more often with improvements in technology, hence clinician should be aware of this device and its effect on the EKG as a differential diagnosis of non-physiological artifact.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 30 Category: Clinical Vignette

Institution: Central Michigan University – Saginaw
Program Director: Sethu Reddy, MD, MBA
Presenter: Matthew Newman
Additional Authors: Abhishek Bhandiwad, Ali Hachem, Shaffi Kanjwal

Colonoscopy Causing Splenic Injury: Rare of Potentially Deadly Complication

Iatrogenic splenic injury is not the first complication that comes to mind in patients with recent colonoscopy but is one with a high potential for morbidity. While the occurrence of this complication is rare, with under a hundred cases reported, splenic injury from a colonoscopy is becoming highly recognized as a serious complication. We present a case of iatrogenic splenic injury after colonoscopy.

The patient is a 74-year-old Caucasian female with significant history of ulcerative colitis who presented as a transfer from an outlying facility with a complaint of LUQ (left upper quadrant pain). She underwent an outpatient colonoscopy the day prior due to positive fecal occult blood testing. She reported completing the bowel prep but the colonoscopy could not be completed. She had the usual post-procedure recovery before going home. The morning of admission, she developed constant, sharp-stabbing, non-radiating 10 out of 10 pain in her LUQ with one episode of vomiting. Imaging done at the outlying hospital showed a 12-centimeter perisplenic hematoma with possible rupture. She was transferred for higher level of care. The patient was treated with pain control and multiple red blood cell transfusions and monitoring in the ICU for several days. Patient's recovery was uneventful.

Obviously, patients with underlying splenic pathology are at increased risk for this type of injury, but technically challenging cases have been reported as causing splenic injuries. Most symptoms occur within 24 hours post procedure and anyone complaining of LUQ pain after colonoscopy should be evaluated for splenic injury.

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Sunday Poster # 31 Category: Clinical Vignette

Institution: Central Michigan University – Saginaw
Program Director: Sethu Reddy, MD, MBA
Presenter: Sukhmanpreet Singh
Additional Authors: Sharanjit Khaira MD PGY3, Angadbir Parmar MD PGY3, Bei Liu MD PHD

A Case of Rare Genetic Disease, Which Was Not Inherited - Acquired Hemophilia A

Introduction:

Hemophilia A (HA) is inherited deficiency of factor VIII (FVIII), whereas Acquired Hemophilia A (AHA) is secondary to Factor VIII inhibitors and often, presents later in life. AHA may present with catastrophic bleeding, despite no prior history of bleeding disorder with mortality rate as high as 9%-22%. This case demonstrates a rare, potentially fatal case of AHA.

Case:

69-year-old-male, with no significant medical-history was brought to hospital for syncopal-event resulting in head trauma. His vitals were stable, though on physical exam, a linear, shallow, 5cm scalp laceration was noted on left forehead with no visible bony-defect. Despite placing multiple sutures at the site of laceration, blood continued to ooze from the wound. CT head didn't show any acute abnormalities. Lab-workup revealed stable hemoglobin, however elevated PTT at 70(22-38 sec). Patient denied any bleeding history, however did report frequent skin bruising over last six-months. Further workup revealed undetectable FVIII at 1%(56-191) and high FVIII inhibitor 82.4BU(<=0.5). Resultantly, patient was diagnosed with autoimmune-AHA, and was started on cyclophosphamide, high-dose-steroids and recombinant FVIII. Over the next three-days, repeat FVIII levels improved along with no further bleeding episodes. Patient was later discharged on prednisone and cyclophosphamide.

Discussion:

AHA is a rare bleeding diathesis caused by auto-antibodies against clotting FVIII. Hemarthrosis, a characteristic bleeding manifestation of inherited HA, is rare in AHA. Most patients with AHA present with bleeding into the skin, soft tissues and muscles. Though the disorder is rare, early recognition and intervention is the hallmark to prevent significant morbidity and mortality.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 32 Category: Clinical Vignette

Institution: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: David Henkin
Additional Authors: Tamarah Roumayah, John Gietzen, Indira Brar, Zohra Chaudhry

Altered Mental Status and Anemia in a ReturningTraveler

The chief complaint of altered mental status has a broad differential that requires a thorough history and physical exam with critical review of the objective data. Here, a case is presented of a 62-year-old man with no medical history brought by family to the ED for 3 days of altered mentation after a two-week trip to Liberia.

On presentation, he was febrile with tachycardia and lactic acidosis. Initially he was fluid resuscitated with some improvement but it was noted that his hemoglobin began to rapidly down trend, nearly 2 g/dL per day. It was associated with elevated LDH, indirect hyperbilirubinemia, low haptoglobin and coombs test negative, suggesting a non-immune mediated intravascular hemolysis. A peripheral smear revealed signet ring-like cells amongst the RBCs and parasitemia >12% consistent with severe falciparum malaria. He was started on IV quinidine infusion but QTc prolongation necessitated a switch to Malarone and doxycycline to complete treatment. Mental status improved and hemolysis gradually resolved prior to discharge.

The patient was diagnosed with severe Plasmodium falciparum malaria based on the World Health Organization criteria. Treatment of P. falciparum-associated anemia should be targeted towards eradication of the parasitemia with anti-microbials as well as blood transfusion as needed, however there is no clear-cut guideline, as treatment is tailored to each individual. Parasite density should be monitored with daily blood smears until smears are negative or until treatment day 7. Options for the treatment of severe malaria are limited and often associated with there own side effects.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 33 Category: Clinical Vignette

Institution: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Vincent Lipari
Additional Authors: Gandolfo, C., Tarun, J., & Zweig, B.

A Rare Presentation of Constrictive Pericarditis

A 21 year-old male presented for evaluation of fatigue and heart burn over 6 months. Initial workup showed hemoglobin of 7.2 g/dL, MCV of 68 fl, reticulocyte index 2.16, and evidence of iron deficiency with iron 24 µg/dL, ferritin 54 ng/mL, TIBC 521 µg/dL. Serum protein and albumin levels were low 4.3 g/dL and 1.9 g/dl respectively.

Given persistent complaint of heart burn, esophagogastroduodenoscopy was performed which revealed hemobilia. Further work-up did not reveal any clear etiology of hemobilia.

An Echocardiogram was performed for evaluation of bilateral lower extremity edema and revealed depressed ejection fraction of 40%, restrictive diastolic function, annulus reversus along with dilated non-compressible inferior vena cava. Subsequent computed tomography of the chest revealed pericardial thickening and calcification. Follow-up right heart catheterization demonstrated hemodynamics consistent with constrictive pericarditis physiology. He was diagnosed with constrictive pericarditis.

The patient's anemia only mildly improved with iron supplementation. He was referred to cardiac surgery for pericardiectomy which was performed without complication. At one year follow-up, patient had complete resolution of his symptoms along with his anemia and hypoproteinemia. Echocardiogram revealed normalization of ejection fraction and diastolic function.

We hereby describe a rare case of iron deficiency anemia due to constrictive pericarditis that presented as hemobilia and subsequently resolved with pericardiectomy restoring the normal cardiac physiology. Our hypothesis is that the patient's constrictive pericarditis resulted in venous congestion and elevated pressures in the liver, which in turn led to chronic mild hemobilia resulting in iron deficiency anemia.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 34 Category: Clinical Vignette

Institution: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Ahmad Murad
Additional Authors: Asaad Nakhle, Syed T Ahsan

A Rare Case of Right Sided Aortic Arch and Kommerell Diverticula

56-year-old male patient with PMHx of HTN, HLD, pulmonary embolism and cigarette smoking presented to the emergency department with recurrent chest pain. He described his chest pain as substernal, non-radiating, He was evaluated multiple times for ischemic etiologies of his pain. Work up was negative including pharmacological stress test. The patient had multiple similar previous presentations without a clear cause of his chest pain. The patient denied any shortness of breath or dysphagia. During this admission, the patient underwent computed tomography angiogram (CTA) of the chest to rule out aortic dissection, which revealed right sided aortic arch with aberrant origin of the left subclavian artery and an aneurysmal dilatation of the arch measuring 5.5 x 5.1 cm involving the origin of the aberrant left subclavian artery representing Kommerell diverticula. Previous records from outside hospital reviewed and revealed similar findings. It was planned to manage the patient conservatively giving location of the aneurysm and stability in size. The patient underwent a follow up CTA after 6 months with stability in the size of aneurysm.

Kommerell diverticula occur in some anomalies of the aortic arch system. It was originally described as a diverticular outpouching at the origin of an aberrant right subclavian artery with a left-sided aortic arch. In severe symptomatic cases, surgical intervention is indicated performing resection of the diverticula and reimplanting the aberrant left subclavian artery into the left common carotid artery to remove any potential substrate for recurrent symptoms of tracheal or esophageal compression.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 35 Category: Clinical Vignette

Institution: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Dania Shakaroun
Additional Authors: Hassan Nasser, MD ,Semeret Munie, MD, Sandeep Soman, MD

Nephrogenic Diabetes Insipidus Manifesting After Esophagectomy in a Patient with Remote History of Lithium Treatment

Nephrogenic diabetes insipidus (NDI) occurs in 12% of patients on chronic lithium treatment even after lithium discontinuation. Patients affected by this disorder are vulnerable to hypernatremia when they cannot respond to their thirst mechanism. We report a case of an elderly woman who developed hypernatremia due to previously undiagnosed NDI post esophagectomy.

Our patient was a 70-year-old female with history of bipolar disorder, chronic kidney disease, and pheochromocytoma who underwent elective esophagectomy for esophageal adenocarcinoma and was subsequently kept nil by mouth. She developed altered mental status post-operatively necessitating intubation and found to have sodium level of 155 mmol/L. A water deprivation test was consistent with NDI. Urine osmolality did not significantly change after desmopressin. After days of dextrose 5% in water infusion, free water flushes through the jejunostomy tube and addition of hydrochlorothiazide, her hypernatremia and mental status improved.

Several mechanisms have been described in literature to explain the persistent damage caused by lithium on the kidneys. It is important to take a detailed history of current or remote lithium use when a patient reports a history of bipolar disease especially in a preoperative evaluation. When patients lose access to source of free water and are resuscitated with normal saline post-operatively they are at risk of developing life-threatening hypernatremia. This can be avoided by aggressive hydration with appropriate fluid replacement.

Physicians need to be aware of the persistent renal defects caused by long term lithium use and development of nephrogenic diabetes insipidus even years after medication cessation

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 36 Category: Clinical Vignette

Institution: Henry Ford Health System – Detroit
Program Director: Odaliz Abreu Lanfranco, MD, FACP
Presenter: Brendan Sullivan
Additional Authors: Edward Gildeh, MD

Taking a New Look: Re-Evaluation of a Liver Abscess

Background:

Carcinoid tumors are rare, with an incidence of 1.2-2.1 per 100,000 people per year. While the most common presenting symptoms include flushing, diarrhea, bronchospasm and hypotension, heart disease may be the presenting sign in up to 20 percent of patients. Despite the infrequency of this, over 50 percent of patients will eventually develop carcinoid heart disease.

Case Report:

A 43 y/o female presented as an outside hospital transfer for hepatology evaluation. She noted chronic, watery diarrhea for the past six months and was found to have new onset heart failure and hypokalemia prompting ER admission. CT chest performed noted a 10 x 10 cm mass in her liver. She underwent a liver aspiration/biopsy, and “anchovy paste” was drained with negative amoebic/bacterial cultures and no improvement on anti-microbials. She denied any recent travel and worked in an automobile plant.

On admission to our hospital, she admitted to shortness of breath and peripheral edema. She underwent a repeat echocardiogram which noted right sided valve thickening with reduced leaflet motion and dysfunction with normal left sided valve function, highly suggestive of carcinoid syndrome. Her serotonin levels were subsequently obtained and were >2000 ng/mL (56-244). A second liver biopsy was obtained and was consistent with metastatic neuroendocrine tumor. She was eventually initiated on octreotide, telotristat ethyl, and everolimus. She underwent pulmonic and tricuspid valve replacement.

Conclusion:

This case demonstrates a unique presentation of a carcinoid tumor, while highlighting the importance of expanding the differential and avoiding anchoring when evaluating a transfer patient.

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Sunday Poster # 37 Category: Clinical Vignette

Institution: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Firdhous Alimathunisa Abdul Kather
Additional Authors: Dr. Mahnoor Khan, Dr. Amal Khalife, Dr. Nagina Aslam, Dr. Frank Randazzo, Dr. Anuradha Sreenivasan and Dr. Tracey Morson

Pernicious Anemia Masquerading as Multiple Sclerosis: A Case of Prolonged Misdiagnosis

The phenotypic heterogeneity of neurodegenerative diseases can prove to be challenging in their diagnoses. Subacute combined degeneration (SACD), a complication of pernicious anemia, is an acquired myelopathy affecting the dorsal and lateral columns of the spinal cord. Misdiagnosis of SACD is common, given its rarity and features paralleling that of the well-known Multiple Sclerosis (MS). We describe the case of a 44-year-old African American female with recurrent episodes of lower extremity weakness. Her symptoms had been erroneously attributed to MS—a diagnosis preemptively made 7 years prior on the basis of oligoclonal bands in cerebrospinal fluid. However, the patient's MRI revealed variability in the pattern of demyelination, which did not fit the finger-like demyelinating configuration through the corpus callosum ("Dawson's fingers"), pathognomonic of MS. Perhaps the most unique facet, in this case, was of positive findings for intrinsic factor antibody and significant vitiligo, a feature associated with cobalamin deficiency, making the diagnosis of SACD more favorable. With treatment, the drastic improvement in the patient enabled her to ambulate after a long time, adding further validation in refuting the preceding misdiagnosis of MS. Both being demyelinating conditions, the overlapping attributes of SACD can mimic those of MS. The unique subtleties in our case lead to the correct diagnosis and reversal of symptoms in what was thought to be a progressively irreversible disease. This case report calls for a more thorough diagnostic approach and insight into demyelinating disorders for improved patient outcomes, especially in light of reversible conditions, such as SACD.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 38 Category: Clinical Vignette

Institution: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Chelsea Dixon-Dionne
Additional Authors: Robert Curtis, DO; Adele Amine, DO; Joseph Abbo, MD; Rajika Munasinghe, MD

Differentiating Hypertensive Hemolytic Anemia from Thombotic Thrombocytopenic Purpura

Introduction:

It is established that Focal Segmental Glomerulosclerosis can lead to difficult to control hypertension. It has also been shown that malignant hypertension can cause microangiopathic hemolytic anemia. We present an uncommon case of a young patient who we believe developed undiagnosed FSGS that led to hypertension. Without diagnosis and appropriate treatment, the patient presented with malignant hypertension, acute renal failure, and MAHA.

Case description:

Our patient is a 19 year old male with no past medical history who presented to the emergency department with nausea, vomiting, subjective fever, and fatigue. He was markedly hypertensive on presentation. Initial blood work revealed renal failure, anemia, and thrombocytopenia. Examination of peripheral smear demonstrated marked schistocytosis. The patient was started on nicardipine drip for hypertensive emergency and was empirically treated for Thombotic Thrombocytopenic Purpura, undergoing three sessions of plasma exchange. The patient's anemia, thrombocytopenia, and hypertension improved, however, renal function did not. He underwent renal biopsy which revealed Focal Segmental Glomerulosclerosis. ADAMTS13 resulted two weeks after treatment and was within normal limits.

Discussion:

This patient's presentation was concerning for thrombotic thrombocytopenic purpura and given the prolonged turnaround time for the ADAMTS13 assay, he was empirically treated. However, in hindsight we believe this patient developed FSGS with subsequent hypertension that went undiagnosed and untreated for an unknown period of time, leading to his presentation of microangiopathic hemolytic anemia secondary to hypertensive crisis.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 39 Category: Clinical Vignette

Institution: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Mahnoor Khan
Additional Authors: Benjamin Lee; Ali Mrad MD; Ashish Verma MD; Niluka Weerakoon MD

A Case of Tertiary Cushing Syndrome via Ectopic Cortisol-Mediated Paraneoplastic Syndrome from Small Cell Lung Cancer

A patient presentation of resistant hypertension with refractory hypokalemia often suggests an adrenal or renal pathology. In the presence of widespread metastatic lesions, however, high clinical suspicion should be maintained not only for primary hyperaldosteronism, but also for paraneoplastic syndromes secondary to ectopic adrenocorticotropic hormone (ACTH) production. Only seen in 5-10% of cases with endogenous hypercortisolemia, ectopic ACTH secretion is a rare cause of Cushing syndrome. We describe the case of a 54 year-old female, with a history of tobacco abuse, presenting with generalized fatigue and lower extremity weakness, who was found to have new-onset hypertensive urgency and severe refractory hypokalemia of 1.7 mmol/L. Random cortisol was elevated at 89.4 ug/dL, which was not able to be suppressed with high dose Dexamethasone administration. Not surprisingly, ACTH was also found to be elevated at 732 pg/mL. Radiographic imaging revealed extensive metastatic lesions, including bilateral adrenal masses, suspected to be secondary adrenal hyperplasia, the sequelae of ectopic ACTH. The patient's course was complicated by progressively worsening agitation, confusion, and disinhibition, with evidence of brain metastasis on MRI. Interestingly, lymph nodal biopsy confirmed the diagnosis of Small Cell Lung Cancer (SCLC). The etiology appeared to be cortisol-mediated paraneoplastic syndrome causing tertiary Cushing syndrome. The patient was started on spironolactone and after aggressive potassium repletion, able to be discharged to follow up with oncology. This case report illustrates an insidious presentation of resistant hypokalemia from ectopic ACTH secretion secondary to metastatic SCLC in the absence of clinical signs of pulmonary pathology.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 40 Category: Clinical Vignette

Institution: Henry Ford Health System – Macomb
Program Director: Amitha Aravapally, MD, FACP
Presenter: Nimmish Khera
Additional Authors: Ali Imtiaz, DO; Robert Curtis, DO

Treatment and Secondary Prevention Guidelines for Libman-Sacks Endocarditis Causing Cardio-embolic Stroke, or the Lack Thereof

Non-bacterial thrombotic endocarditis (NBTE) is the second most common cardiac manifestation of SLE after pericarditis. We present a case of a young female with a past medical history of systemic lupus erythematosus (SLE) and anti-phospholipid antibody syndrome (APAS) who presented with an acute embolic stroke despite being compliant with Apixiban.

A 21 year old female with known history of SLE, pulmonary embolism/deep vein thrombosis secondary to APAS on Apixiban treatment, and mild cognitive delay due to previous recent CVA presented to our emergency department with left-sided deficits and dysarthria. Initial CT scan of head without contrast demonstrated a 1-2 day old left parietal stroke, not entirely consistent with her presentation. Anticoagulation was held and patient had complete resolution of symptoms within eight hours. She underwent a trans-esophageal echocardiogram (TEE) on the next hospital day which showed multiple vegetations on the mitral and aortic valves. Patient was transferred for higher level of care for suspected embolic stroke secondary to libman-sacks endocarditis. Patient was started on heparin and repeat TEE showed smaller vegetations thus surgery was not pursued. She was discharged home with Coumadin.

Libman-sacks endocarditis is a rare etiology of embolic stroke. Due to its low prevalence, there are no clear-cut treatment guidelines for anticoagulation or overall secondary prevention for cardio-embolic cerebrovascular events in patients with recurrent embolization. Surgery is recommended in significant valvular destruction; however, further studies are needed to evaluate benefit of surgical intervention in setting of recurrent embolization.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 41 Category: Clinical Vignette

Institution: Hurley Medical Center/MSU – Flint
Program Director: Ghassan Bachuwa, MD, FACP
Presenter: Htay Htay Kyi
Additional Authors: Yazan Zayed, Samer Al Hadidi

Ibrutinib-Induced Cardiomyopathy

The use of ibrutinib for treatment of chronic lymphocytic leukemia (CLL) and other hematologic malignancies is blooming. Atrial fibrillation is a known side effect of ibrutinib but cardiomyopathy was not reported previously.

An 88-year-old African American male with history of CLL and hypertension, presented to the emergency department with a 2-day history of palpitations accompanied by chest discomfort, shortness of breath and fatigue. He denied similar symptoms before. He took ibrutinib 420 mg for one month prior to his presentation beside amlodipine 5 mg daily. He denied tobacco, illicit drugs, and alcohol use. Cardiopulmonary examination revealed an irregularly irregular heart rate of 125, bilateral crepitations on chest auscultation with bilateral limb edema. His laboratory investigations revealed normal thyroid function and troponins. Electrocardiogram showed atrial fibrillation but no significant ST-T changes. His Chest X-ray showed pulmonary congestion. Echocardiogram showed an ejection fraction of 30-35% and mild concentric left ventricular hypertrophy. Ibrutinib was discontinued. He was managed for pulmonary edema with diuretics. Heart rate was controlled with diltiazem. He received apixaban as anticoagulation. He continued to have low ejection fraction four months after discontinuation of ibrutinib. Ischemic heart disease was ruled out with normal cardiac catheterization.

This case highlights a possible new side effect of ibrutinib. Ibrutinib may cause cardiomyopathy for patients with no history of coronary artery disease. Diagnosis of dilated cardiomyopathy is a diagnosis of exclusion in our case. Follow-up after ibrutinib initiation is essential even for asymptomatic patients to check for possible side effects including serious cardiac events.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 42 Category: Clinical Vignette

Institution: McLaren Regional Medical Center/MSU – Flint
Program Director: Parul Sud, MBBS, FACP
Presenter: Shujing Lin
Additional Authors: Amir Al-Dabagh, Orimisan Adekolujo

Triple Infection in a Healthy Patient: Psittacosis and Influenza A and B

Introduction:

Psittacosis is a systemic zoonosis caused by infection with Chlamydia psittaci, transmitted predominately by birds. Although psittacosis can be asymptomatic, typically patient presents with abrupt fever, headache, myalgia, and non-productive cough. In the absence of typical exposure history, the diagnosis of psittacosis can be difficult leading to delay in diagnosis and possible worse outcome. We present a case of psittacosis in a patient with no exposure to bird, who also had co-infection with Influenza A and B.

Case:

A 22-year-old Caucasian female with no past medical history presented with fever, dyspnea, headache, and nonproductive cough of 2 weeks duration. She denied recent travel, camping or exposure to birds. She was strictly a dog groomer. Five days of outpatient antibiotics did not result in symptom improvement. On admission, she was afebrile but had tachycardia, tachypnea and hypoxia. She had leukocytosis (WBC of 22,000/mm3, normal 4000- 10000/mm3) and bilateral patchy infiltrates on computerized tomography of the chest. She was initially treated with intravenous azithromycin and vancomycin on suspicion of pneumonia but she deteriorated requiring 100% oxygen and BiPAP. Further workup was positive for Chlamydia psittaci IgM, and influenza A and B IgM. Intravenous doxycycline and oral oseltamivir were started with improvement over 2 weeks.

Conclusion:

In addition to the lack of typical exposure, the current patient with no predisposing co-morbid condition, developed triple infection with psittacosis, influenza A and B. Thus, a high index of suspicion is required for diagnosis of psittacosis in a patient with no history of bird exposure.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 43 Category: Clinical Vignette

Institution: McLaren Regional Medical Center/MSU – Flint
Program Director: Parul Sud, MBBS, FACP
Presenter: Sarah Nazir
Additional Authors: Kollu, V.S Agbakwuru, U

Mal De Debarquement Syndrome: A Peculiar and Oblivious Effect of Travelling

Introduction: The feeling of constant motion after travel, persisting for months to years is Mal de debarquement syndrome (MdDS). We present a patient with MdDS, to increase awareness of this condition, its diagnosis and available treatments.

Case Description: 40-year-old Caucasian female presented to clinic with sensation of floating for past two years, after an un-eventful flight journey. Symptoms would improve with passive motion and get worse at rest. History was negative for ear infections. MRI brain and electrocochleography did not suggest any pathology. A diagnosis of vestibular migraine was made and propranolol was started, resulting in fatigue and no symptom improvement. Diagnosis was changed to anxiety and was started on benzodiazepines with no relief. Diagnosis of MdDS was then made based on history and negative work up.

Discussion and conclusion: MdDS is the constant false feeling of motion. Triggering factor is travel, sea travel being the provoking factor in 60-83% and air travel being <41%. Presenting symptoms could be swaying, rocking, floating, anxiousness, depression and cognitive fatigue. Symptoms usually improve with passive motion and are worse at rest, as in our patient. It`s a diagnosis of exclusion.

Pathophysiology of MdDs is still unknown. It`s proposed as a disorder of neuroplasticity (brain cannot readapt to the stable conditions post being in a state of motion). Recent progress suggests left entorhinal cortex and amygdala as possible anatomical sites involved. Based on this, external neuromodulation via transcranial magnetic stimulation has been used in MdDs patients with positive results. Our patient is awaiting treatment.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 44 Category: Quality Improvement

Institution: McLaren Regional Medical Center/MSU – Flint
Program Director: Parul Sud, MBBS, FACP
Presenter: Prathapraju Poloju
Additional Authors: Sai Sreenija Dukkipati, Juan Gonzalez, Madhavi Gadiraju, Parul Sud

Updating Master Problem List: A Quality Improvement Project to Improve Residents compliance in an Internal Medicine Resident Clinic

Introduction: Master problem lists (MPL) consolidate patients' major medical problems, procedures, pertinent test results, screening and immunization.

AIM: Increase residents' compliance in updating the MPL by 30% over the next 3 months & improve residents' perception of its value.
Methods: We obtained IRB exemption and RAB approval. 30 residents audited 3 charts each of patients who had at least one office visit between November 2015-16, collecting data on updated diagnoses, screening , immunization and Diabetic metrics. Pre-intervention survey assessed residents' perception of importance of MPL. Intervention included resident education via lectures on importance of MPL. A post-intervention survey was conducted 2 months later.

Results: At baseline, 71% of charts were updated for all diagnoses, 34.5% for screening, 43.6% for immunization and 26.3% for Diabetes. When auditing their own charts, residents reported compliance of updating MPL as 60% but only 21.7% when screening their colleagues' charts. Post intervention this difference improved to 100% Vs 92%. 50% residents admitted missing problems not listed on MPL. Detection of missed incidentalomas was 50%. Post intervention, updating Immunizations doubled from 26% to 50%. Detection of erroneous diagnoses was 85.7%. Obstacles to updating MPL were time ,not user friendly and physicians' tendency to forget to update.

Limitations: Of 90 charts audited, complete data was available for 55 charts. Pre-intervention vs post intervention survey responders were 23 vs 14.

Conclusion:
Education improves residents' compliance and understanding of the value of MPL in patient care.

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Sunday Poster # 45 Category: Clinical Vignette

Institution: McLaren Regional Medical Center/MSU – Flint
Program Director: Parul Sud, MBBS, FACP
Presenter: Meghana Tipparthy
Additional Authors: Kollu, L.B., Najjar, M., Kollu, V.S.

Nocardia Nova Septic Arthritis of a Native Knee Joint

Introduction: Nocardia nova (Nn) causes pulmonary, cutaneous, joint, bursa, sinus, CNS and disseminated infections. There are two reported cases of Nn joint infection and both of them are in prosthetic joints. We report the first case of Nn infection of a native joint.

Case presentation: 78-year-old female with history of ESRD on hemodialysis, low grade B-cell lymphoma on prednisone, hypertension and osteoarthritis presented with right knee pain and swelling. Aspiration and workup revealed pseudogout and was treated with colchicine successfully. Month later she developed right knee swelling and pain. Aspirate was purulent. Patient was admitted to hospital. I.V vancomycin and I.V aztreonam were initiated. Patient underwent right knee excision and debridement. Cultures were suggestive of Nocardia and antibiotics were changed to meropenem and amikacin. Bactrim was not considered in view of ESRD. Final cultures grew Nn. Meropenem and amikacin were continued for 6 weeks. She was treated with imipenem and azithromycin (because of drug allergies and side effects) for another 4 ½ months.

Discussion: Risk factors for Nocardia in our patient are low grade b-cell lymphoma and being on prednisone. Port of entry might be initial arthrocentesis. For Nn infection, dual IV antibiotic therapy for 4-6 weeks and a subsequent varying duration of oral regimen (2 to 55 months) has been reported. Our patient was treated successfully with combination of I.V and oral antibiotics in six months.

Conclusion: We report the first Nn native joint infection. It was successfully treated with combination of I.V and oral antibiotics in six months.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 46 Category: Clinical Vignette

Institution: Sinai Grace Hospital – DMC – Detroit
Program Director: Mohamed Siddique, MD, FACP
Presenter: Roshini Moses
Additional Authors: Hettiarachchi, Malitha MD, Arsene, Camelia, MD, PhD, MHS.

A Housemaid's Tale: A Case Report of Leptospirosis Presenting as Severe Sepsis & Pneumonia

Introduction: Leptospirosis is a zoonotic disease caused by Leptospira genus presents as a mild flu-like disease or a severe form with multi-organ involvement, and has an annual prevalence of 100-150 cases in USA.

Case description: A 49 year old female presented with a 5-day history of productive cough, emesis, diarrhea, bilateral lower extremity pain. On presentation, she had severe sepsis (fever, tachycardia, and hypotension) with bilateral infiltrates on imaging. She was treated for community acquired pneumonia with Ceftriaxone & Azithromycin likely due to Legionella. On day 2 of admission she developed conjunctival pallor, scleral icterus and petechiae. Laboratory work up revealed hyponatremia, transaminitis, microcytic anemia, hyperbilirubinemia, thrombocytopenia, rhabdomyolysis, and acute kidney injury. Despite therapy, the patient's condition worsened with development of ARDS and renal failure requiring mechanical ventilation and hemodialysis. Leptospirosis was suspected after further information was gathered regarding the patient's occupational history. Leptospirosis serum antibody test sent on day 2, returned positive on day 10. Therapy was switched to a 12 day course of IV Ceftriaxone and Doxycycline with subsequent improvement.

Discussion: Leptospirosis is transmitted to humans on exposure to animal urine. Significant to this case was the patient's uncommon presentation and occupational history of a housemaid. According to CDC, 10 % of cases can develop severe disease which can be fatal in 5 to 15% of the cases. Having a high index of suspicion is crucial to diagnosing & initiating treatment to avoid serious complications of this disease because there are no rapid diagnostic tests.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 47 Category: Clinical Vignette

Institution: Sinai Grace Hospital – DMC – Detroit
Program Director: Mohamed Siddique, MD, FACP
Presenter: Rohan Naik
Additional Authors: Rohan Naik, MD; Aditya Kotecha, MD; Ajit Thakur, MD; Pallavi Rath, MD; Camelia Arsene, MD, PhD, MHS; Geetha Krishnamoorthy, MD.

Quetiapine Ccausing Atypical Neuroleptic Malignant Syndrome (NMS) and Acute Respiratory Distress Syndrome (ARDS)

Introduction: A tetrad of fever, muscle rigidity, altered mentation and dysautonomia, with supportive laboratory findings constitute NMS, usually caused by typical antipsychotics. With the advent of atypical antipsychotics, atypical presentations of NMS have been recognized.

Case Description: A 34 year old woman with bipolar disorder presented to our hospital agitated, after overdosing on quetiapine. Examination revealed diaphoresis, tachycardia, and diffuse bilateral crackles. Muscle rigidity, hyperreflexia and ankle clonus were absent. Lethargy and respiratory distress developed, necessitating intubation and mechanical ventilation. Her CPK was 24,454 U/L, AST 309 U/L, ALT 79 U/L, and LDH 583 U/L. She was not on any other medication. Initial CT-Head and Thorax were unremarkable. The next day, hypoxemia worsened. Chest X-ray showed bilateral infiltrates. She became febrile, and remained febrile with a maximum temperature of 41.2C. No clinical or radiographic evidence of infection was found. Lumbar puncture, blood, urine, and respiratory cultures were negative. Temperature was unresponsive to acetaminophen and ibuprofen, but responded to IV Dantrolene and Bromocriptine, and dropped from 41.2C to 36.2C over eight hours. NMS has now resolved, but patient is gradually recovering from ARDS.

Discussion: Several case reports suggest that atypical antipsychotics may cause attenuated NMS, without rigidity or fever, and is less severe and has lower mortality. This challenges the validity of present DSM-V criteria for NMS, which requires muscle rigidity. It is also critical to differentiate NMS from Serotonin Syndrome and Malignant Hyperthermia as there is significant overlap of features. Quetiapine overdose may also cause ARDS.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 48 Category: Quality Improvement

Institution: Sinai Grace Hospital – DMC – Detroit
Program Director: Mohamed Siddique, MD, FACP
Presenter: Nabila Naser
Additional Authors: Mahesha Makandura, MD ; E.M. Malitha S. Hettiarachchi, MD; Rajika Munasinghe, MD, MBA, MSc, FACP; Camelia Arsene, MD, PhD,MHS

Novel Alternatives to Hydroxyurea for Prevention of Sickle Cell Crisis

Background: Vaso-occlusive crises are one of the most common complications experienced by patients with sickle cell anemia. The current standard of care for prophylaxis against such crises is Hydroxyurea, a myelosuppressive agent. Hydroxyurea is the only agent proven to effectively reduce the occurrence of vaso-occlusive crises by 50%. In this evidence-based review, we will discuss novel alternatives to Hydroxyurea in prevention of sickle cell crises for patients in whom Hydroxyurea is ineffective.

Methods: A literature search was conducted on Ovid Medline, PubMed and Cochrane databases using the keywords: “antisickling agents”, “prophylaxis for sickle cell crises”, “vasoocclusive crises”. The search returned several articles, out of which 4 articles were selected for relevance to the proposed question.

Results: Crizanlizumab, an antibody to an adhesion molecule was studied in a double blind placebo controlled RCT. In comparison to placebo, a 4.53% lower incidence of sickle cell crises was found (p=0.01). Zinc sulphate was studied in a similar setting and was found to significantly decrease crises by -2.83 (95% CI -3.51 to -2.15). Senicapoc, a Gardos channel blocker, was found in comparison to placebo to improve red cell survival. An adenosine A2A receptor agonist, Regadenoson, an FDA approved drug for stress tests, is currently under study for improvement in recurrence of sickle cell crises.

Conclusions: Crizanlizumab and Zinc sulphate are promising alternates to Hydroxyurea for use in prevention of sickle cell crises. However, large scale RCTs are required to study dose related efficacy and long term use in patients with sickle cell anemia.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 49 Category: Quality Improvement

Institution: Sinai Grace Hospital – DMC – Detroit
Program Director: Mohamed Siddique, MD, FACP
Presenter: Lindsey O'Neil
Additional Authors: Meghana Srinivas, MD; Maysaa Basha, MD; Camelia Arsene, MD, PhD, MHS

Utility of Electroencephalography (EEG) in Early Detection and Management of Seizures

Background
EEG (electroencephalography) is a safe, non-invasive, and inexpensive diagnostic tool used in diagnosing seizure-like episodes, especially status epilepticus. Early detection can minimize complications of prolonged or undiagnosed seizures and decrease length of hospital stay.

Objective
To assess timeliness of obtaining an EEG in patients with seizure-like symptoms, seizures, or suspected status epilepticus with the goal of reducing morbidity and mortality and improving resource utilization.

Methods
This is a Quality Improvement Initiative following a Plan-Do-Study-Act plan using retrospective chart review of adult patients with EEGs performed between January-March 2017. Patients with cardiac arrest were excluded. Demographic information, length of time between ordering and completing an EEG, and EEG findings were collected and tabulated using Excel and descriptive statistics.

Results
100 patients met the inclusion criteria. The mean age was 58 years; 40% had a seizure history; 76% had an EEG ordered for seizure; 78% had an EEG done within 24 hours and 22% within 48 hours or greater. 49 patients had an abnormal EEG reading, 75.5% had an abnormal reading when done within 24 hours with only 2% of electrographic seizure detected, and 1 had status epilepticus. In EEGs done equal too or greater than 72 hours, abnormal findings were detected in 2% without seizure activity.

Conclusions
EEG abnormalities were detected in 37 patients with only 2% seizure detection including Status Epilepticus when done within 24 hours. Obtaining an early EEG can help identify patients who need either observation and/or full hospitalization to optimize resource utilization and patient outcomes.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 50 Category: Clinical Vignette

Institution: Sinai Grace Hospital – DMC – Detroit
Program Director: Mohamed Siddique, MD, FACP
Presenter: Mohamad Taha
Additional Authors: Osama Hadid, Akshay Sharma, Camelia Arsene, Maher Tama, and Omar Al-Subee

Reactivation of Resolved HBV Infection: A Potential Fatal Complication of Direct Acting Antiviral Therapy

INTRODUCTION Hepatitis B virus (HBV) reactivation is an abrupt increase in serum HBV DNA in chronic or resolved infection. Patients who require immunosuppression treatment for diseases like malignancies and autoimmune disorders, or to prevent complications after organ transplantation, have an increased risk of HBV reactivation. In addition, treatment using the highly effective direct acting antivirals (DAAs) therapies for treatment of chronic hepatitis C (CHC) infection has a known risk of HBV reactivation. Regardless of the cause, HBV reactivation may result in fulminant hepatic failure.

CASE DESCRIPTION A 60-years old female with myelodysplastic syndrome, CHC infection, and previous HBV infection (negative HBsAg/HBeAg/HBV DNA, positive HBsAb/HBcAb) was admitted, and received stem cell transplant and immunosuppressant therapies. Few months later, treatment with DAAs Elbasvir/grazoprevir was initiated and patient developed nausea, vomiting, abdominal pain and jaundice. Evaluation revealed ALT 510 units/liter AST 430 units/liter, total bilirubin 5.8 mg/dL, INR 1.7, albumin of 2.3g/dL, HBV DNA PCR 39,590IU /ML, reappearance of HBsAg and HBeAg, and disappearance of HBsAb. Treatment of reactivated HBV infection using Entecavir resulted in improvement of symptoms and liver function.

DISCUSSION This case demonstrates reactivation of resolved HBV infection and acute hepatic failure. The risk of HBV reactivation is significantly higher in HBsAb–negative patients, and serological reappearance of HBsAg is the most important predictor of HBV-related hepatitis flare. Even without serologic confirmation of HBV reactivation, immunosuppressed patients may benefit from early start of antiviral therapy. In the context of profound immunosuppression, clinicians should remain vigilant when treating CHC infection with DAAs.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 51 Category: Research

Institution: Sinai Grace Hospital – DMC – Detroit
Program Director: Mohamed Siddique, MD, FACP
Presenter: Ajit Thakur
Additional Authors: Ajit Thakur, Rohan Naik, Paramveer Singh, Shayna Mcquaid, Varun Yelamanchili, Camelia Arsene, Kim Jones

Tissue Engineering Human Cells for Allogeneic Transplantation

Many incurable diseases such as end-stage renal disease, cardiac, hepatic and pulmonary failure have a known solution: organ transplantation. However, transplanted organs or grafts have a limited life-span in the host due to the immune response against the alloantigens on foreign cells. Immunosuppressive drugs provide a short-term solution, but they are systemic and greatly increase the risk of severe side effects. Acute cellular allograft rejection is primarily mediated by CD8+ Cytotoxic T Lymphocytes and their Major Histocompatibility Complex (MHC) recognition capability. Hence, viruses have evolved many mechanisms to modulate MHC Class I expression and evade and suppress detection by the immune responses of the host. In this study, we used a retrovirus to transduce model human cells (U937) with a viral protein (MIR2) derived from Kaposi Sarcoma-Associated Herpes Virus (KSHV) to differentially down-regulate the number of MHC Class I as well as other immunoactive molecules on the cell-surface. We demonstrate that this targeted approach resulted in a significant reduction (up to 52%) in the CD8+ Cytotoxic T Lymphocyte-mediated cytotoxicity, without increasing Natural Killer cell-mediated cytotoxicity of allogeneic cells in vitro. This study serves as a proof-of-principle that viral strategies of immune evasion can be successfully employed in human cells to potentially extend the life of transplanted tissues in an allogeneic host. We predict that this research will lead to the development of “universal” cells for transplantation that may not require immunosuppressive drugs.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 52 Category: Clinical Vignette

Institution: Sinai Grace Hospital – DMC – Detroit
Program Director: Mohamed Siddique, MD, FACP
Presenter: Varun Yelamanchili
Additional Authors: Trang Dang DO/PHD; Nitya Manney MD

A Rare Case of Phrenic Nerve Stimulation from Dislodged Pacemaker Lead

Introduction: Cardiac pacemakers are increasingly used for treatment of several bradyarrhythmias. About 4% of these devices will require lead-related intervention. Dislodgement of the atrial lead can result in diaphragmatic stimulation. In affected patients, they will experience hiccups and abdominal spams – just like the case we present here.

Case Description: A 66-year old female with a history of sick sinus syndrome with recurrent sinus pauses (status post dual-chamber pacemaker placement, 3 weeks ago), presented with a chief complaint of painful abdominal spasms for one day duration. Initially, it started with hiccups that later resolved. The abdominal spams are intermittent, lasts less than a minute and resolves spontaneously. These spasms were seen intermittently on physical exam. Chest x-ray showed dislodgement of the right atrial lead from the right atrial appendage. Once the device was interrogated and turned off, the abdominal spasms resolved. She underwent replacement of the right pacemaker lead. She stated the prior day to the onset of symptoms, she was reaching for multiple items on a top shelf at a grocery store – she was not aware of any activity restrictions post-op.

Discussion: Postoperative pacemaker care should be given importance to avoid lead displacement complications. Patient should be clearly educated to avoid upper body exercise like lifting weights above the shoulder level of greater than 5 pounds for at least 6 weeks and avoid reaching to higher objects above the shoulder level for at least 4-6 weeks after the procedure.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 53 Category: Clinical Vignette

Institution: St. Joseph Mercy – Oakland
Program Director: Benjamin Diaczok, MD, FACP
Presenter: Pramod Kumar Ponna
Additional Authors: Mayuri Kulkarni (Medical student), Rovin Saxena MD, (Associate); Geetha Krishnamoorthy, MD (Member); Benjamin Diaczok, MD, FACP

Hepatic Double Trouble

INTRODUCTION:

Combined Hepatocellular carcinoma and Cholangiocarcinoma (cHCC-CC) accounts for < 1% of all liver malignancies and is difficult to diagnose pre-operatively. We present a case of cHCC-CC diagnosed by imaging, tumor markers and biopsy.

CASE PRESENTATION:

A 61-year-old man with advanced cirrhosis due to hepatitis C and alcohol, was admitted for hepatic encephalopathy. His alpha-fetoprotein (AFP) was elevated at 17, 771 ng/mL. MRI abdomen revealed a 2 cm mass that showed early enhancement and rapid wash-out consistent with HCC in the right lobe and 2 lesions in the left lobe that showed hyperenhancement in post contrast images which was not consistent with HCC. CA 19-9 level was elevated at 54.3 U/mL. Biopsy of the left lobe lesion showed Cholangiocarcinoma. Metastatic work up (CT chest, MRI brain, bone scan) was negative. Patient and his family chose comfort care due to the poor functional status and need for hepatectomy.

DISCUSSION:

There are 3 types of cHCC-CC: In type A, HCC and CC are seen at different sites in the liver, as in ours. Type B consists of juxtaposed HCC and CC that mingle with ongoing growth and type C has both within the same tumor. Imaging shows HCC features of arterial enhancement and washout and CC features of irregular surface and late enhancement. The presence of both elevated AFP and CA 19-9 should lead to the suspicion of cHCC-CC. Hepatectomy is the only curative treatment for cHCC-CC and transplant is contraindicated. Survival after resection for cHCC-CC is worse than HCC.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 54 Category: Clinical Vignette

Institution: St. Joseph Mercy – Oakland
Program Director: Benjamin Diaczok, MD, FACP
Presenter: Rovin Saxena
Additional Authors: Mayuri Kulkarni, Nilesh Patel, Anupam Sule

Ethylene Glycol Toxicity: How Low Can You Go?

INTRODUCTION

Anion gap metabolic acidosis is a frequent cause of hospital admissions. Most cases are mild to moderate and resolve. Severe acidemia (pH levels below 6.6) are almost always fatal. We present a case of ethylene glycol poisoning with an anion gap metabolic acidosis and pH of less than 6.5 who survived.

CASE

A 42 –year-old man with a history of multiple suicide attempts presented to the ED after being found unresponsive. Multiple, mostly empty psychotropic medication bottles were found adjacent to him. He was reported to have ingested a quart of antifreeze. Upon arrival, he was hypothermic. Labs revealed a creatinine of 7.8; severe metabolic acidosis with an anion gap greater than 35 and an osmolar gap of 51 and ethylene glycol level of 67. Bicarbonate was undetectable. His pH was less than 6.5. Urinalysis showed calcium oxalate crystals. The patient was intubated, sedated, and paralyzed. He was started on fomepizole, pyridoxine, leucovorin, and thiamine. A bicarbonate drip was initiated and ventilator settings were adjusted. His pH rose and his bicarbonate became detectable. Emergent renal replacement therapy was initiated. He was successfully extubated 1 week later. He had no residual neurological deficits.

DISCUSSION

There have been few reports of patients surviving severe metabolic acidosis with a pH as low as our patient's. We suspect early recognition of ethylene glycol toxicity, followed by aggressive treatment with fomepizole, leucovorin, pyridoxine, thiamine, dialysis and supportive care was the key to success.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 55 Category: Clinical Vignette

Institution: St. Joseph Mercy – Oakland
Program Director: Benjamin Diaczok, MD, FACP
Presenter: Anup Kumar Trikannad Ashwini Kumar
Additional Authors: Sruthi Vellanki, MD; Vanessa Rodriguez (Student); Paul Mergo, MD; Sandeep Garg, MD; Geetha Krishnamoorthy MD(ACP Member)

Hypercalcemia as the Sole Initial Presentation of Precursor B-Cell Acute Lymphoblastic Leukemia

INTRODUCTION:

Acute Lymphoblastic Leukemia (ALL) presents with neutropenic fever, bruising, anemia, lymphadenopathy, and bone pain. Hypercalcemia and osteolytic lesions as the presenting feature of ALL is documented in children, but very rare in adults. We report an adult with hypercalcemia and bone pain as the sole presentation of ALL.

CASE:

A 24-year-old woman presented with vomiting, abdominal pain, and bone pain. The examination was normal. Laboratory studies: Calcium: 17.2 mg/dL (9-10.5 mg/dL), phosphorus: 4.4 mg/dL (normal). Platelet count: 136,000/mcL (150,000-450,00/mcL), white cell count: 9000/mcL with normal peripheral smear review. She was hydrated, given calcitonin 200 IU x 3, and zoledronate 4 mg. Calcium normalized and symptoms resolved. Parathyroid Hormone (PTH) level: 3 pg/mL (10-65 pg/mL), vitamin D 25-hydroxy: 11.2 ng/mL (low), vitamin D 1,25 dihydroxy: < 5 pg/mL. Parathyroid hormone-related peptide (PTHrP): 8 pg/mL (low). Protein electrophoresis and serum light chains were normal. CT chest, abdomen and pelvis was normal. She was discharged with close follow up. The patient returned 1 week later, with bone pain and bruises. Platelet count: 51,000/mcL, WBC count: 9000/mcL with lymphocytosis. Peripheral smear showed lymphoblasts. Flow cytometry confirmed precursor B Cell ALL.

DISCUSSION:

PTHrP produced by lymphoblasts causes hypercalcemia. Our patient had low PTHrP. Other mediators include tumor necrosis factor α, interleukin(IL)-6, and IL-2. Hypercalcemic patients may have blasts at presentation, but can be 'aleukemic'. Unexplained hypercalcemia with bone pain should lead to the suspicion of ALL, and bone marrow exam should be performed even without peripheral blastosis to diagnose and treat ALL immediately.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 56 Category: Clinical Vignette

Institution: St. Joseph Mercy – Oakland
Program Director: Benjamin Diaczok, MD, FACP
Presenter: Xuyen Truong
Additional Authors: Amreetpal Sidhu MD, Rakin Rashid MS3, Jacky Duong DO

AIDS Cholangiopathy in a Patient with HAART Resistant HIV

AIDS cholangiopathy is caused by strictures from opportunistic infection of the biliary tract, inducing obstruction and triggering right upper quadrant pain and elevations of alkaline phosphatase (ALP), AST, ALT and GGT. Before the advent of highly active anti-retroviral therapy (HAART), AIDS cholangiopathy was seen in as many as 26% of AIDS patients, though it has since become a rare entity. Here we present a case in which AIDS cholangiopathy was encountered as a complication of HIV resistance.

A 37-year old female with PMH of HIV on efavirenz, emtricitabine, tenofovir presented with severe right-sided abdominal pain and rigors, worsening over several weeks. ALP, AST and GGT were markedly elevated. She had reported adherence to HAART, though HIV levels were found to be 196, 670 copies/mL and CD4 count was <5 cells/mm^3. HIV genotyping revealed resistance to her current HAART regimen, prompting switching to a two-pill combination drug therapy with emtricitabine/rilpivirine/tenofovir and darunavir/cobicistat. Gangiclovir was initiated for active CMV infection. Abdominal ultrasound and MRCP were without biliary ductal dilatation or strictures. ERCP was not performed as the risks outweighed the benefits. After initiation of the new HAART regimen, ursodiol and ganciclovir, ALP markedly improved and AST normalized, along with resolution of abdominal pain.

Due to the efficacy and availability of HAART in industrialized nations, AIDS cholangiopathy has become a rare diagnosis. This case illustrates that despite HAART, there should be a low threshold for genotypic resistance testing to prevent AIDS and its complications, including AIDS cholangiopathy.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 57 Category: Clinical Vignette

Institution: St. Joseph Mercy – Oakland
Program Director: Benjamin Diaczok, MD, FACP
Presenter: Aman Ullah
Additional Authors: Abigail Foster, MS4, Mohammad Chisti, M.D.

Hashimoto Encephalopathy Refractory to Corticosteroids Responds to Plasmapheresis

INTRODUCTION

Hashimoto encephalopathy (HE) is a rare syndrome associated with Hashimoto thyroiditis. The prevalence is 2.1 per 100,000. HE is characterized by hypothyroidism associated with paralysis and / or neuropsychiatric symptoms. High-dose corticosteroids are considered first-line treatment. For patients unresponsive to steroids, immunosuppression with azathioprine, intravenous immunoglobulins, or rituximab have been reported to be efficacious. We report a patient with HE unresponsive to corticosteroids who improved robustly with plasmapheresis.

CASE

A 57-year-old gentleman with a one year history of Hashimoto encephalopathy presented to our facility with confusion, depression, and memory loss. As an outpatient he received levothyroxine, oral steroids and, after 6 months, azathioprine. During several hospitalizations he received 500 mg IV solumedrol BID. The patient relapsed after each treatment. Diagnosis of Hashimoto encephalopathy was supported by thyroglobulin antibody levels >3000 IU/mL, serum thyroperoxidase antibody >1000 IU/mL and negative workup for infectious and metabolic causes of encephalopathy. During this hospitalization, the patient did not respond to steroids and he developed ataxia. The patient underwent daily plasmapheresis for five days. His neuropsychological symptoms and ataxia dramatically improved. The patient was discharged to home and is currently receiving weekly maintenance plasmapheresis. Rituximab is being considered.

DISCUSSION

Significant therapeutic benefits and long-term remission have been reported with plasmapheresis in Hashimoto encephalopathy. This case suggests that maintenance plasmapheresis may be considered in patients refractory to steroid therapy.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 58 Category: Clinical Vignette

Institution: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Asma Saboor
Additional Authors: David Steinberger, MD

Delirium as a Presenting Symptom of Systemic Lupus Erythematosus in a Young Adult

Introduction: Neurological complications in Systemic lupus erythematosus (SLE) leads to more serious course and poor prognosis. More than half of the SLE patients have some neuropsychiatric issue, however delirium as a presenting symptom is uncommon (< 4% of patients).

Case Report: A 31-year-old male with no past medical history, presented with confusion and fever. He also had headache, sleep disturbances, poor appetite and erythematous rash on his chest from last 3 weeks. Initial CT head was unremarkable. He had lumbar puncture done twice, which showed lymphocyte predominance with mild increase in protein. All the blood work up and CSF analysis was negative for bacterial, fungal and viral infection. He was started on broad spectrum antibiotics initially, later changed to acyclovir only, when no infectious etiology was found. CTA head and neck showed mild narrowing of internal carotid artery segments. MRI head showed patchy and focal restricted water diffusion involving bilateral basal ganglia and thalami, extending to deep cerebral white matter. Electroencephalogram showed diffuse cortical neuronal dysfunction. Autoimmune work up was ordered, as patient's clinical condition was deteriorating, which showed positive ANA, anti-Ds DNA, anti-smith antibody, with increased anti-Ro/SSA and anti-ribonucleoprotein. Normal complement and anticardiolipin level. After establishing diagnosis, he was started on steroids. Confusion mildly improved with steroids but he had generalized muscle weakness with dysphagia. He was transferred to University hospital for immunosuppressive therapy.

Conclusion: Lupus cerebritis can be a major diagnostic challenge as presenting symptoms are vague, prompt diagnosis and aggressive management may delay nervous system destruction.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 59 Category: Clinical Vignette

Institution: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Nupur Shah
Additional Authors: Narendra Khanchandani, David Steinberger

Adderall and Sudden Cardiac Arrest: A Serious Case Report

BACKGROUND: Adderall (Amphetamine-Dextroamphetamine) increases synaptic concentration of monoamine neurotransmitters, thereby enhancing noradrenergic and dopaminergic neurotransmission in central nervous system treating Attention deficit hyperactivity disorder (ADHD) or narcolepsy. Same pharmacology is responsible for its major side effects and liability for recreational abuse. This case report is about a young-healthy male who developed sudden cardiac arrest from ventricular fibrillation, as a side effect from using Adderall prescribed for his ADHD.

CASE DESCRIPTION: 33-year-old healthy male presented with outpatient sudden cardiac arrest. He had a sudden collapse and was resuscitated by bystanders until EMS arrived and cardioverted him to sinus rhythm from ventricular fibrillation. On arrival, patient was diaphoretic with agonal breathing. Labs showed leucocytosis, lactic acidosis and negative troponin. EKG showed sinus tachycardia. Arterial blood gas showed primary respiratory acidosis. He was intubated and started on hypothermia protocol. Records revealed regular refills for adderall, sertraline and alprazolam. Urine drug screen was positive. No family history of sudden cardiac arrest/death or personal history of syncope/arrhythmia. CT angiography was normal. Echo was normal with no structural abnormalities and EF 60%. Coronary angiography showed normal coronaries. He was discharged with subcutaneous implantable cardioverter-defibrillator for secondary prevention and instructions to avoid sertraline and/or Adderall for its likelihood contribution.

CONCLUSION: Sertraline can augment stimulatory effect of amphetamine by decreasing its metabolism via cytochrome p450 isoenzyme, lowering threshold for side effects with Adderall. Adderall increases cathecholamine release, which can cause cardiac arrhythmia. So a rational prescription of Adderall and a regular cardiology surveillance during treatment must be ensured.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 60 Category: Clinical Vignette

Institution: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Muhammad Syed
Additional Authors: Zahra'a Salah, MD, FACP ; Amit Mohindra, MD, FACP ; Ramesh Mohindra, MD, FACP

Think Outside the Lung

Meigs' syndrome (MS) and Ovarian remnant syndrome (ORS) are rare conditions, with MS occurring in less than 1% of ovarian tumors. This is a rare case of Ovarian remnant syndrome presenting with Meigs' Syndrome.

A 79 year old female with past medical history of hypertension, stroke, and recurrent pleural effusions resulting in multiple hospitalizations. Past surgical history was remarkable for total abdominal hysterectomy with bilateral salpingo-oophorectomy (TAH-BSO) at the age of 40. She underwent thoracentesis five times. Each time, 1000-1400 ml of exudative fluid was removed, with no evidence of infection or malignancy. During her last hospital admission, physical exam showed decreased breath sounds and dullness to percussion in the left mid-lower lung fields. Abdominal exam showed mild distention with no hepatosplenomegaly. Chest x-ray showed left sided pleural effusion. Pleural fluid analysis was unremarkable. Chest CT showed no mass but did reveal abnormal hepatic texture. Abdominal ultrasound was performed revealing a 15x12 cm retroperitoneal mass. Biopsy of the mass was consistent with an ovarian fibroma. Later testing for cancer antigen 125 (CA-125) level was mildly elevated.

Reviewing this case proved that diagnosing MS is a challenge especially in a patient who has had BSO in the past. ORS is a complication of BSO and presents with pelvic pain and pelvic mass or evidence of functional ovarian activity. Management of both MS and ORS with tumor is surgical removal of the tumor and the prognosis for MS is excellent with resolution of the pleural effusion and ascites postoperatively.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 61 Category: Clinical Vignette

Institution: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Pratyusha Yadavalli
Additional Authors: Ryan Wolok, M.D

A Diagnostic Conundrum: A Case of JAK2 Positive Prefibrotic Myelofibrosis or Masked Polycythemia Vera?

Introduction: It can be clinically challenging to differentiate between BCR-ABL negative myeloproliferative neoplasms (MPN), especially in a patient with confounding disease processes. There are overlapping features between polycythemia vera, primary myelofibrosis, and essential thrombocytosis. Due to the lack of robust discriminatory parameters, it can pose some diagnostic ambiguity.

Case: 55-year-old male with no past medical history presented to the hospital with coffee ground emesis and melena. He had severe iron deficiency anemia with normal white blood cell and platelet counts but was found to have no source of bleeding on scoping. On imaging he had hepatosplenomegaly with a splenic infarct and a segmental pulmonary embolism. Extensive workup including hepatitis, CMV, EBV, histoplasmosis, HIV, endocarditis and liver doppler scan was all negative. EPO level was not done in the setting of his iron deficiency. He was positive for JAK2 V617F mutation so the possibility of myeloproliferative neoplasms was further investigated. Bone marrow biopsy demonstrated increased marrow cellularity, increased erythroid and megakaryocytes, which was interpreted as JAK+ MPN, specifically prefibrotic myelofibrosis. Weeks later his hemoglobin raised to 16.3, making the diagnosis of polycythemia vera more likely than myelofibrosis at this point. The patient is currently on Ruxolitinib.

Conclusion: This case presents an interesting diagnostic challenge that can arise with myeloproliferative neoplasms in a complex clinical context. Studies indicate that you cannot always differentiate between the three based on pathology alone and it’s important to note as this can affect the long term management.

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Sunday Poster # 62 Category: Clinical Vignette

Institution: St. Mary Mercy Hospital – Livonia
Program Director: David Steinberger, MD, FACP
Presenter: Anton Zavoyskikh
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Mirizzi's Elusive Gallstone

A 35 year-old obese lady presented with 1-month history of intermittent right upper quadrant (RUQ) abdominal pain, fever, nausea and vomiting. Abdominal exam showed RUQ tenderness without guarding or rigidity. Initial labs showed elevated ALP, transaminitis and normal bilirubin. Ultrasound was limited with no evidence of gallstones or CBD dilation. Subsequent labs revealed worsening transaminitis, ALP levels and obstructive jaundice. MRCP showed long cystic duct containing stones coursing with the common hepatic duct to the level of the Ampulla of Vater along with mild dilation of common hepatic duct. ERCP showed evidence of cholangitis with purulent drainage after sphincterotomy and a stone in the distal cystic duct causing obstruction of the CBD and common hepatic duct. CBD stent was placed with clinical improvement. Atypical anatomy of the biliary tree and adhesions led to subtotal open cholecystectomy of contracted gallbladder and inability to locate the cystic duct stone intraoperatively. Surgical Pathology report revealed chronic cholecystitis. The patient was treated with antibiotics and discharged home. She presented one week later with a perihepatic abscess which was managed with drainage and antibiotics. Patient was discharged with plans for interval gallstone extraction.

The biliary tree anatomic variation seen in our patient is uncommon and may lead to difficulty in diagnosing Mirizzi's syndrome due to the absence of significant ultrasound findings as well as failure of extraction of the implicated gallstone.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 63 Category: Clinical Vignette

Institution: University of Michigan – Ann Arbor
Program Director: John DelValle, MD, FACP
Presenter: Daniel Perry
Additional Authors: Monika Leja MD

Mediastinal Lymphangioma Presenting with Pericardial Effusion

INTRODUCTION: Lymphangiomas are rare benign lymphatic system tumors most often located in the cervical region in pediatric patients. Mediastinal lymphangiomas are extremely rare with often the most severe presentations.

CASE DESCRIPTION: A 21-year-old female presented with dyspnea, pain with inspiration, and fifty-pound weight loss. Chest CT revealed a 9x5.3cm superior anterior mediastinal mass and subsequent thorascopic biopsy yielded pathology consistent with lymphangioma. She was lost to follow-up and presented back to the ER six months later with two weeks of progressive dyspnea and cough. CT showed marked progression of diffuse lymphoid tissue throughout the mediastinum and TTE demonstrated a large pericardial effusion with evidence of tamponade physiology. A pericardial drain was placed and fluid studies revealed elevated triglycerides. Lymphangiogram demonstrated extravasation of contrast from the thoracic duct into the mediastinum and a 7mmx10cm covered stent was placed across the cranial aspect of the thoracic duct to exclude lymphatic leakage into the mediastinum. Following the procedure there was minimal output from her pericardial drain and it was removed. She was deemed a poor surgical candidate given the vascular characteristics of the mass as well as its location and size, and was treated medically with sirolimus.

DISCUSSION: Lymphangiomas are malformations of the lymphatic system that typically remain asymptomatic for many years and are diagnosed incidentally or when symptoms of compression arise, such as cough, dyspnea, or dysphagia. Surgical resection has been the standard treatment, but recently alternative options are available, including sclerotherapy, laser treatments, and oral medications such as mTOR inhibitors.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 64 Category: Clinical Vignette

Institution: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, Member
Presenter: Dana Kabbani
Additional Authors: Brandon Twardy, Pradeep Kathi, Radhika Gaddipati

Nafcillin: A Rare Cause of Cutaneous Leukocytoclastic Vasculitis

Leukocytoclastic vasculitis (LV) is a rare hypersensitivity reaction involving the small vessels, and is usually mediated by drugs. To date, few cases of nafcillin-associated LV have been reported. We present a case of a 64-year-old Caucasian male who presented to the hospital with acute onset of confusion, fever, and chills. Two sets of blood cultures obtained at the time of admission were positive for methicillin-sensitive staphylococcus aureus (MSSA), and the patient was started on nafcillin. A week after receiving nafcillin, the patient developed palpable purpuric non-blanching rash that appeared bilaterally on his upper and lower limbs. Work up for the rash including C3/C4, ANA, Anti Ro, Anti La antibodies, ANCA, Cryoglobulin were negative excluding autoimmune etiology. Hepatitis B, Hepatitis C, and HIV were tested and they were negative. The biopsy of the skin lesion showed findings suggestive of leukocytoclastic vasculitis. Nafcillin was considered as the offending agent and it was discontinued. Cefazolin was initiated to treat the MSSA bacteremia. The cutaneous symptoms began to resolve after discontinuation of nafcillin, and the addition of prednisone. Even though it is rare in clinical practice, this case provides a valuable teaching point to physicians that nafcillin induced LV should be considered as one of the differential diagnosis in the evaluation of an erythematous rash.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 65 Category: Clinical Vignette

Institution: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, Member
Presenter: Jasleen Kaur
Additional Authors: Kendall Bell.M.D.,Ravinder Bhanot. M.D., Diane Levine.M.D., Ayman Soubani.M.D.

Pegloticase for Tough-To-Treat Gout Can Cause Hemolytic Anemia: A Lesser Known Side Effect

Introduction: Pegloticase is a PEGylated (PolyEthylene Glycol) recombinant form of uricase that converts pre-existing uric acid to allantoin which is readily excreted in urine. Us of Pegloticase is a novel approach for treatment of chronic gout refractory to conventional therapy. The primary safety concerns in its administration remain hypersensitivity and infusion-related reactions often requiring premedication. However, limited information exists with regards to less common but serious adverse effects such as hemolytic anemia, more common in patients with Glucose-6-Phosphate Dehydrogenase (G6PD) deficiency.

Case presentation: We present the case of a 55-year-old African American man with refractory gout admitted with sudden-onset fatigue, shortness of breath and dark-colored urine three days after his first Pegloticase infusion. Laboratory studies, urinalysis and peripheral blood examination were consistent with the diagnosis of hemolytic anemia. The latter was thought to be a complication of recent Pegloticase administration, as there were no other reported medication changes. Given his ancestry, it was further hypothesized that the patient had underlying G6PD deficiency which was later confirmed. His course was complicated by acute renal failure and hyperkalemia requiring multiple sessions of hemodialysis. Plasmapheresis was strongly considered but not required as patient recovered with supportive treatment.

Discussion: To our knowledge, this is only the third reported case implicating Pegloticase with severe hemolysis. Because of the potential for serious adverse outcomes we recommend screening for G6PD deficiency prior to its administration of Pegloticase.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 66 Category: Research

Institution: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, Member
Presenter: Maninder Kaur
Additional Authors: Amar Krishna , Bhagyashri Navalkele , Suganya Chandramohan , Parminder Virdi, Teena Chopra.

Catheter Related Bacteremia in Hemodialysis Patients on Antibiotic Lock Therapy: Are Antibiotic Locks Ineffective?

Introduction :

Antibiotic lock therapy (ALT) is used to prevent catheter related bacteremia (CRB) associated with use of tunneled/non-tunneled hemodialysis (HD) catheters. ALT exerts its action by preventing intraluminal biofilm formation in long-term catheters and not in short term use catheters.

Method and materials:

ALT project was implemented in all HD patients in 3 tertiary care hospitals in Detroit from June 2016 to October 2017. ALT containing Gentamicin (5 mg/2 ml) in 4% sodium citrate was instilled into each catheter lumen after HD. Medical records were reviewed retrospectively in HD-CRB Patients.

Results:

A total of 3,384 antibiotic locks were dispensed. 13 CRB were identified. Among the 13 patients, none of the ALT doses were missed in 9 patients. Median duration from catheter insertion to CRB occurrence in these 9 patients was 7 days, with 6 (67%) patients having catheter duration of ≤ 8 days. 3 of 9 patients had catheters longer than 8 days. The 3 patients with prolonged duration of catheterization had catheters inserted long before the ALT project was implemented and received ALT for only short duration before development of CRB.

Conclusions:

A large proportion of patients on ALT had catheters for short duration before CRB occurrence, therefore an intraluminal source of bacteremia due to biofilm formation is unlikely to have occurred. In those HD- CRB patients with long periods of catheterization, ALT duration might not have been sufficient to eradicate biofilm. Therefore, CRB occurrence in our population is probably not due to ALT failure.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 67 Category: Clinical Vignette

Institution: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, Member
Presenter: Tushar Mishra
Additional Authors: G He, A Subahi, K Sreeram, MT Rauf, J Weinberger

Secondary Adrenal Insufficiency from Pembrolizumab: An Under Recognized Complication of a Newly Emerging Therapy

Background: Anti-programmed death-1 (PD1) inhibitors such as Pembrolizumab are novel agents that release the blockade of body's immune system by tumor cells, leading to antitumor activity. While their short-term advantages are clear, the enhanced immune response leads to a variety of side effects, the complete profile of which is still evolving.

Case Report: 71 y/o male stage IV NSCLC on Pembrolizumab for 9 months presented with worsening fatigue, reduced appetite, and nausea for one-month duration. He denied any vomiting, diarrhea, reduced oral intake, and recent travel or sick contacts. He was hypotensive at 97/59 in sinus rhythm. His exam was notable for dry oral mucosa, increased skin turgor, and capillary refill >3 seconds. He did not show signs of pallor, or have crackles on lung examination. He was found to be hyponatremic to 119 mmol/L and hyperkalemic to 5.4 mmol/L. Cosyntropin 250 mcg stimulation test and low ACTH levels (5pg/ml) revealed secondary adrenal insufficiency. FSH, LH, TSH, and prolactin levels were within normal limits. Interestingly, his eosinophil count has been elevated for the past 2 months prior to presentation.

Discussion: Adrenal insufficiency can present with vague symptoms like fatigue, nausea and reduced appetite, which can be easily confused for other conditions. This is important to recognize because it is a potentially treatable and a delayed diagnosis can lead to rapid morbidity and mortality.

Conclusion: As we further develop a more comprehensive side effect profile for anti-PD1 immunotherapies, it will be imperative to recognize treatable dysfunctions of the endocrine system.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 68 Category: Clinical Vignette

Institution: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, Member
Presenter: Lea Monday
Additional Authors: Kajy, Marvin

Plummer-Vinson Syndrome with Concomitant Factor VII Deficiency: A Case Report

We present a case of Plummer-Vinson Syndrome, describing the presenting features, diagnosis and management plan. Plummer-Vinson Syndrome is an uncommon disorder presenting as iron deficiency anemia, dysphagia, and esophageal webs. Our patient had a history of anemia repeatedly attributed to menstrual bleeding, with dysphagia for 10 years and went undiagnosed. She presented with symptomatic anemia requiring blood transfusion. A thorough history revealed vague swallowing complaints and workup showed presence of the esophageal webs with no evidence of active internal bleeding. In addition, coagulation labs revealed the incidental finding of a prolonged prothrombin time. Hematologic studies confirmed the presence of Factor VII deficiency. She was discharged on oral iron supplementation for her iron deficiency and did not require any treatment for Factor VII deficiency. To date, no case report has been published about a patient diagnosed with Plummer-Vins on Syndrome and concomitant Factor VII deficiency.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 69 Category: Clinical Vignette

Institution: Wayne State University – Detroit
Program Director: Jarrett Weinberger, MD, Member
Presenter: Hamza Najam Salam
Additional Authors: Dr. Shahzana Shahzad, Dr. Mariam Hazem M.D

G.I Bleed from Outside the G.I. Tract; Consequence of a Developing Drug Trend

Epidemiologic data suggest that insufflation has become a popular mode of heroin ingestion for young adults. There is a misconception that heroin insufflation is safe and has lesser addicting potential. We report a case illustrating a life-threatening complication of heroin insufflation even after short-term use.

A 42-year-old man was brought, unresponsive, to the emergency department and regained consciousness after IV naloxone was administered. His colostomy bag, a consequence of a prior gunshot wound, contained melanotic stool. He reported black stools for 2 weeks and endorsed a short 1-month history of heroin insufflation. He denied cocaine use as well as IV drug use. Presenting hemoglobin was 9.8. A working diagnosis of acute upper GI bleed was made. The patient was admitted to the medicine floor. ENT evaluation showed irritation and inflammation of turbinates.

The next day, he had two episodes of bloody emesis and was taken for EGD. Though fresh blood was noted in the stomach, no gastrointestinal source of bleeding was found. That evening, the patient developed profuse epistaxis. ENT placed nasal tampons and took the patient for cauterization emergently. Pre-op hemoglobin dropped to a low of 5.6. Cauterization of multiple nasal arteries was done which successfully stopped the bleeding, and following transfusions, hemoglobin levels stabilized. Melena resolved.

This case, taken in context of the epidemiological evidence, suggests instances of life threatening intranasal or posterior pharyngeal bleed will appear with increasing frequency with intranasal heroin use and may mimic acute upper GI bleed.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 70 Category: Clinical Vignette

Institution: Western Michigan University School of Medicine – Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Mohamed Mortagy
Additional Authors: Jeffrey Laman, Gabriel Kousorou, Kevin Kavanaugh

A Rare Case of Temozolamide-Induced P-ANCA Vasculitis Leading to Fatal Rapidly Progressive Glomerulonephritis

This is a 65 year old male who presented with bilateral leg pain and swelling for 3 days. Patient was diagnosed with glioblastoma multiforme 1 week ago and was started on temozolamide. Vital signs were normal. Heart and lung exams were normal. He had 2+ pitting edema of the lower extremities bilaterally. His legs were warm, red and tender.

Complete blood count showed normal leukocyte and hemoglobin counts. Platelet count was 57,000. Peripheral blood smear was unremarkable. Complete metabolic panel was unremarkable. Venous doppler and arterial duplex studies were unremarkable. The patient was admitted for treatment of suspected cellulitis with vancomycin. Blood cultures were negative. Temozolamide was stopped per oncology recommendations.

After three days into admission and despite antibiotic therapy, the patient deteriorated. He went into shock and had to be intubated for acute respiratory failure. Basic metabolic panel showed creatinine of 4.5 mg/dl. Urinalysis was remarkable for hematuria, 65 RBCs, proteinuria and granular casts. Vancomycin was stopped and switched to cefepime. However, repeat pan cultures were negative.

Patient's leg rash (figure 1) started to desquamate and spread up to his thighs and abdomen over the next few days. Continuous renal replacement therapy was started. However, he continued to deteriorate and his family changed his code status to do not resuscitate and he expired shortly thereafter. Three days later, P-ANCA came back positive suggesting microscopic polyangitis diagnosis secondary to recently started tomozolamide.

I am discussing the etiology and the differential diagnosis of P-ANCA vasculitis, microscopic polyangitis and rapidly progressive glomerulonephritis.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 71 Category: Clinical Vignette

Institution: Western Michigan University School of Medicine – Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Mridul Parmar
Additional Authors: Karthik Kailasam MD, Richard Roach MD

Acute Calcific Longus Colli Tendonitis: A Mimicker of Meningitis

Acute calcific tendinitis (ACT) of the Longus Colli muscle also otherwise known as retro-pharyngeal tendinitis or acute calcific prevertebral tendinitis, presumably caused by calcium hydroxyapatite deposition in the longus colli tendon. The ACT often presents with acute posterior neck pain, neck stiffness, dysphagia, odynophagia, and mild fever. The clinical presentation can sometime be confusing and seems like patient is having signs of meningismus.

A 40 year old female presented with 24hr history of headache, neck pain and stiffness to the clinic. Associated with odynophagia, dysphagia and nausea, but she denied any fever, chills, vision changes, dizziness or photophobia. Concerning for Meningitis, she was referred to the ER. CT head w/o contrast negative for any bleed/mass/inflammation. She had an LP that was unrevealing for any infectious pathology. She was discharged from the ER to home. Later she presented to the clinic for follow up, still complaining of the similar symptoms. CT soft tissue neck with contrast was ordered that clinched the diagnosis.

Discussion: This most commonly occurs in age group between 30-60. The exact etiology of calcium hydroxyapatite crystal deposition is still poorly understood. The ACT is an inflammatory process affecting the upper oblique fibers of the longus colli muscle. CT scan is the gold standard for diagnosis of retropharyngeal tendinitis, since it can detect both prevertebral edema and calcium hydroxyapatite crystal deposition in longus colli tendons.

The learning point here is that this is self limiting condition that requires supportive care analgesics, rest and NSAID's for management.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 72 Category: Clinical Vignette

Institution: Western Michigan University School of Medicine – Kalamazoo
Program Director: Joanne Baker, DO, FACP
Presenter: Anita Shallal
Additional Authors: Kaur, J., Boapimp, P.

Ehrlichiosis Presenting with Syncope: A Diagnostic Dilemma

Ehrlichiosis is a tick-borne illness that is increasing in incidence across the United States. A delay in diagnosis of the infection is associated with significant morbidity, including prolonged hospitalizations and intensive care unit treatment.

A 79-year-old male presented to the emergency department after loss of consciousness. His review of systems was positive for malaise, loose stools, and dysuria. Vital signs were remarkable for tachycardia and a temperature of 103F. Labs were notable for thrombocytopenia, leukopenia, and elevated transaminases. CT head was negative for acute process. He was admitted to the hospital for treatment of suspected UTI. Several days later, his vitals became unstable, and he developed hypoxic respiratory failure. Antimicrobials were switched to broad-spectrum coverage, but he remained febrile. His mental status declined and he was transferred to a tertiary hospital for infectious disease consultation. The patient's daughter admitted that he recently returned from a trip to rural Kentucky three weeks prior. A serum PCR panel for tick-borne illnesses was positive for Ehrlichia chaffeensis. He was discharged on hospital day 8 with a 7-day course of doxycycline. He subsequently made a complete recovery.

Tick-borne illnesses present a diagnostic dilemma for physicians. Syncope is an atypical presentation for tick-borne illnesses that is not frequently reported in the literature. Physicians should be aware of both classic and atypical presentations for tick-borne illnesses, being mindful of travel history as a diagnostic clue. A thorough history may have prevented this prolonged hospital course, multiple diagnostic tests, as well as consultations to other services.

ACP Michigan Chapter Scientific Meeting 2018

Sunday Poster # 73 Category: Clinical Vignette

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Redefining Drug Induced Thrombocytopenia: Adverse Effects and Unintentional Iatrogenic Harm

Case: 88 year old female with past medical history of paroxysmal atrial fibrillation and vascular dementia presented to the emergency room for increased weakness over prior 3-4 days. In the emergency room the patient had spontaneous epistaxis which stopped with pressure. Review of systems revealed melena of 1-2 days duration and a recent diagnosis of a urinary tract infection which was treated with trimethoprim-sulfamethoxazole. The patient also had a fall resulting in a small right arm tear which "bled excessively". Physical examination revealed dried blood in nares, scattered purpura, petechiae, and ecchymosis. Patient was found to be thrombocytopenic at 3,000 and was given two units of platelet which increased platelet counts to 12,000. She had an episode of melanotic stool during admission which dropped her hemoglobin from 12.5 to 9.9. Peripheral blood smear revealed no evidence of hemolysis. Hematology was consulted and recommended prednisone for suspected drug induced thrombocytopenia (DITP). Sulfamethoxazole induced antiplatelet antibody testing resulted positive confirming DITP. Platelet counts subsequently improved with steroid administration.

Discussion: Trimethoprim-sulfamethoxazole is a common cause of DITP. Thrombocytopenia in DITP is secondary to accelerated platelet destruction from drug-dependent platelet-reactive antibodies. Thrombocytopenia in DITP can occur suddenly and be severe enough to cause life threatening bleeding or death. Although DITP secondary to trimethoprim-sulfamethoxazole is not uncommon, it is not often thought of as an adverse effect. This case illustrates the importance of considering the possible common and less common adverse effects, especially in our aging population, as it can have significant consequences.

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Sunday Poster # 74 Category: Research

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Association Between Pulmonary Hypertension and Transcatheter Aortic Valve Replacement: Analysis of A Nationwide Inpatient Sample

Introduction: This study was done to review the impact of pulmonary artery hypertension (PAH) on TAVR procedures done in the US for years 2010 to 2012.

Methods: We used Nationwide Inpatient Sample (NIS) data to extract data for patients who were hospitalized with a primary/secondary diagnosis of TAVR as specified by International Classification of Disease (ICD-9) codes 35.05 and 35.06. PAH was identified with ICD-9 codes 416.0 and 416.8. Logistic regression models were used to analyze the association between PAH and TAVR.

Results: A total of 8,824 weighted discharges were identified with primary/secondary diagnosis of TAVR of which 1,976 (22.4%) also had PAH. Mean age of patients undergoing TAVR with and without PAH was 81.4 and 81.1 years, respectively. More females had a diagnosis of PAH with TAVR when compared to males, (56.9% vs. 43.1). When controlling for demographics, diabetes and hypertension; the association between PAH and TAVR was statistically significant ($p<.0001$). Estimated odds of TAVR with PAH was 5.46 (95% CI: 4.63, 6.41) times greater than for TAVR without PAH. Similarly, the estimated odds for a length of stay greater than 1 week for TAVR with PAH was 1.43 (95% CI: 1.12, 1.82; $p=.0034$) times greater than odds for TAVR without PAH. PAH was not statistically significant for in-hospital mortality in patients receiving TAVR ($p=0.7067$).

Conclusion: This study suggests underlying PAH does not influence the immediate mortality of patients underlying TAVR. Further studies are needed to delve into the bearing of PAH on TAVR.