2017 Annual Residents & Medical Students Meeting

March 4, 2017
Doubletree by Hilton Orlando - Downtown
60 S Ivanhoe Blvd ~ Orlando, Florida, 32804

Abdo Asmar, MD FACP - Program Host

Mission Statement
To enhance the quality of internal medicine postgraduate training through Associate advocacy and promotion of excellence in the practice of medicine
Now Hiring Physicians
All Across Florida!

Millennium Physician Group is currently located in four counties and currently looking to expand our physician base across Florida to better care for our neighbors, friends and family.

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Governors

John G. Langdon, MD FACP

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Program Agenda

Saturday – March 4, 2017       Lakeside Ballroom

8:00 a.m. – 9:00 a.m.  Registration / Breakfast / Visit the Exhibits

8:00 a.m. – 9:00 a.m.  Poster Set-Up

8:45 a.m. – 9:00 a.m.  Judges Meeting

9:00 a.m. – 12:00 p.m.  Formal Poster Competition – Residents & Medical Students
                        Sponsored by Millennium Physician Group

12:10 p.m.  Welcome from the Program Chair
            Abdo Asmar, MD, FACP – Program Chair
            Jason M. Goldman, MD FACP, Governor

12:15 p.m. – 1:30 p.m.  LUNCH PRESENTATION: A Venous Thromboembolism (VTE) Symposium
                        This activity is funded through an educational grant from Bristol-Myers Squibb/Pfizer Pharmaceuticals Partnership to the TEAM Collaborative to support activities that improve the treatment of patients with Venous Thromboembolism and Anticoagulation (VTE). The Physicians’ Institute is a member of TEAM and retains full control over the distribution of individual grants under this collaborative grant program.

1:45 p.m. – 4:45 p.m.  Doctors Dilemma Competition

5:00 p.m. – 6:30 p.m.  Governors Awards Reception

There is no Continuing Education credit designated for this meeting.
Aventura Hospital and Medical Center

- Increased Prevalance Of Elevated Hemoglobin A1C In Ambulatory Patients With Characteristics Of The Frailty Syndrome
  Carmen Cartwright MD
- Appropriate Utilization Of Peripherally Inserted Central Catheters: It's Not Always MAGIC
  Carmen Elena Cervantes MD
- Histrionic Behavior: A Unique Presentation Of Creutzfeldt-Jakob Disease
  Faryal Farooqi, MD
- Rethinking Spectrum Of Biliary Disease: Incipient Cholecystitis, Intermediate Entity Between Biliary Colic & Acute Cholecystitis
  Sufian Sorathia MD

Blake Medical Center

- A Silent And Debilitating Case Of Demyelinating Disease
  Alexandru Zaharcu MD
- The Role Of Proton Pump Inhibitors In Insulin Resistance: A Meta-Analysis And Systematic Review
  Fiorella Pendola MD

Brandon Regional Hospital

- A Rare Mutation Of The GFAP Gene Leading To The Diagnosis Of Alexander Disease
  Kamal Preet Cheema, MD
- Portal Vein Thrombosis (PVT) In A Healthy Patient, Why?
  Mohammad Sadeddin, BCh
- Ertapenem Induced Thrombocytosis
  Ramon A. Docobo, MD
- The Enigma Of Exercise-Induced Pulmonary Hypertension: Recognition, Treatment And Understanding
  Zulfiqar Qutriq Baloch, MD

Florida Atlantic University

- How To “Gain” The Most Out Of Electrocardiography
  Joel A Casale MD
- An Underrecognized Neurotoxin: Cefepime-Induced Status Epilepticus In The Renally Impaired
  Marc Ghabbour, MD
- The Effects Of A Resident Outpatient Clinic Intervention On Hospital Readmission Rates
  Matthew Dothager, MD
- Meningococcemia In The Absence Of Meningeal Signs, Serotype W135
  Nabil Benhayoun, MD
- Temperamental Temporal Lobe: All Psychosis Aren’t Created Equal
  Samantha Mellissa Daniel, MD
Florida Hospital

- Comparison Of Modified And Full Glasgow-Blatchford Scores Performance In Patients With Non-Variceal Upper Gastrointestinal Bleed
  Evgeny Idrisov, MD
- Looks Can Be Deceiving: A Case Report On Multicentric Reticulohistiocytosis
  Jason D’Souza, MD
- “Low Sugar” Due To “Big IGF”: A Case Report Of Persistent Hypoglycemia Secondary To Non-Islet Cell Tumor
  Saeed Ali MD, MBBS
- Glasgow-Blatchford Score As A Prognostic Scoring System For Lower Gastrointestinal Bleed
  Sameen Khalid, MD

Florida State University

- An Unusual Case Of Bilateral Pneumonia: Mushroom Worker’s Lung Disease
  Anahita Sanaie, MD
- Loeffler’s With A Diagnostic Twist: Advancement In Cardiac MRI
  Anthony Herzog, MD
- Heart Stopping Regadenoson Infusion
  Krishna Patel, MD

Kendall Regional Medical Center

- Evaluation Of The Validity And Performance Of The SIRS Criteria Vs Qsofa In Predicting ICU Admission And In-Hospital Mortality
  Hanish Sampath Kumar MD
- ACE Inhibitor Induced Angioedema: New Paradigm In Clinical Management
  Micaella Kantor MD
- A Pain In The Neck - A Peculiar Presentation Of Von Hippel Lindau Disease
  Sima Patel, MD
- Daily Goals Sheet For Performance Improvement In Critical Care
  Venkata Shilpa Reddy Kalli, MD

Mayo Clinic Florida

- Unusual Positive Outcomes Of Penetrating Pancreatic Squamous Cell Carcinoma
  Neej J. Patel, MD
- Spontaneous Coronary Artery Dissection Presenting As Fibromuscular Dysplasia
  Deviani Umadat, DO
- Infectious Tenosynovitis With Methylobacterium Species Presenting As Advanced Carpal Tunnel Syndrome
  Taryn Smith MD

Mt Sinai Medical Center

- A Rare Case Of Rectal Bleeding
  Erika Alexis Quintana, DO
- Chasing Zebras. A Case Of Hydralazine-Induced Lupus
  Jorge Perez, MD
- Was It The Death Star?
  Yamil Elias Michelen Alvarez MD
North Florida Regional Medical Center
- Variation In Definitions Of Immobility In Pharmacological Thromboprophylaxis Clinical Trials In Medical Inpatients
  Fan Ye, MD, PhD
- Trimethoprim Induced Severe Hyponatremia In Elderly Patient With Recurrent UTIs
  Muhaammad Usama Shah Hamdani, MD
- Altered Mental Status As A Presenting Manifestation Of P-ANCA-Associated Vasculitis.
  Shreyans Mayur Doshi, MD

Oak Hill Hospital
- How Can My Heart Be On The Right Side When I Was Born With It Being On My Left?
  Arushi Goel, MD
- Multiple Embolic Strokes Arising From Ulcerated Brachiocephalic Artery Plaque
  Chirag Ashok Patel, MD
- Case Of An Egg Donation Gone Wrong
  Monicka Felix, MD
- The Art Of Managing Controlled Chaos: On The Receiving End Of A No-Notice Forced Evacuation
  Pranavkumar Patel, PharmD, MD

Ocala Health System
- Papillary Muscle Rupture And Endocarditis: A Flailing Diagnosis
  Faisal Rahim MD
- Acute Ischemic Stroke- Delayed CT Presentation With Negative MRI.
  Raihaan Riaz Khattak MD
- A Rare Presentation Of Acute Myeloid Leukemia With Rhabdomyolysis
  Thu-Cuc Nguyen, MD

Orange Park Medical Center
- Amphetamine Use And Bilateral Hippocampal Stroke
  Kavitha Ganesan MD
- "To Resuscitate Or Not That Is A Question" Advance Directive (AD) QI Project At Palms Medical Group Clinic
  Muhammad Asif Mangi, MD
- Recurrence Of GIST While On Adjuvant Imitanib For More Than 3 Years
  Muhammad Nauman Riaz, MD

Orlando Health
- Bronchial Diverticula: An Unusual Case Of Chronic Hemoptysis In A 50 Year Old Nonsmoking Male
  Brittany Rae Bednov MD
- An Unusual Case Of HSV-2 Encephalitis In A Patient With Gliosarcoma
  Giselle Castaneira MD
- A Work Of Heart
  Robert Castiglia MD
Resident Poster Judging Presentations

Palmetto General Hospital

- Bilateral Pulmonary Metastasis From A Malignant Meningioma: A Rare Case Study
  Abrar Khan, DO
- Brand Versus Generic Warfarin: A Case Report
  Christopher Neagra, DO
- When The Wrong Clues Lead To The Right Diagnosis
  Uri Shoshan DO

University of Central Florida

- Localized Cystic Kidney Disease: Distinction From Unilateral Polycystic Kidney Disease
  Dana Perrone, DO
- An Unexpected Leak
  Nway Le Ko Ko MD
- Appendicitis In Elderly, A Diagnostic Dilemma
  Sundeep Kumar, MD

University of Florida - Gainesville

- A Confusing Case Of Malignant Seizures
  Amy Joy Sheer MD, MP
- An Uncommon Etiology For A Commonly Encountered Metabolic Abnormality
  Azka Ali MD
- An Uncommon Cause Of Lactic Acidosis
  Cecil A. Rambarat MD
- Facial Palsy & Atrial Fibrillation: A Special Case Of Ramsay-Hunt Syndrome
  Fares Ayoub, MD
- A Rare Case Of Raoultella Planticola Urinary Tract Infection In An Immunocompromised Patient With Multiple Myeloma
  William Paul Skelton IV, MD

University of Florida - Jacksonville

- HHV-8 Responsible For A Multicentric Castleman’s Disease Subtype
  Anushil S Patel, MD
- A Case Of Endogenous Bacterial Endophthalmitis In The Setting Of MRSA Bacteremia
  Cody Horn, DO
- A Case Of Obstructive Sleep Apnea And Uncorrected Atrial Septal Defect Progressing To Eisenmenger Syndrome
  Jose Ruiz-Morales, MD
- Small Cell Lung Cancer In The Pancreas: An Unusual Metastasis Diagnosed By Endoscopic Ultrasound Guided Fine Needle Aspiration
  Scott Steinberg MD
University of Miami at Holy Cross Hospital

- Pancreatitis Associated With A New HAART
  Amro Ilaiwy, MD
- Two Causes Of Sudden Cardiac Death In One Patient
  Susie Sennhauser, MD
- Hypogonadism As A Presentation Of Subclinical Apoplexy
  Vanessa M. Rosa, MD

University of Miami Regional Campus

- Gastric Outlet Obstruction Due To Pyloric Stenosis As A Late Complication Of H. Pylori Infection
  Diana Roman, MD MPH
- Simultaneous Bilateral Thromboembolism As An Unusual Complication Of Atrial Fibrillation
  Eduardo Jose Venegas Mercadal MD
- An Office-Based Endeavor To Increase Screening Colonoscopy Rates
  Jinendra Satiya MD
- Occam’s Needle: A Rare Case Of Iatrogenic Stroke And MI.
  Rosmy Jimmy MD

University of Miami/ Jackson Memorial Hospital

- Adoption Of A Multifaceted Intervention To Improve Inpatient Influenza And Pneumococcal Vaccination Rates At A VA Hospital
  Charlotte Morel, MD
- Caution The Crypts Of Solid Organ Transplant: A Case Of Cryptococcal Meningitis In A Ddkt Recipient
  Daniel Joseph Watford, MD MPH
- Non-Tuberculous Mycobacterial Infection In COPD Patients – An Evaluation Of Predisposing Comorbidities
  Fahim Pyarali, MD MPH
- Population Health Opportunities For Graduate Medical Education In Miami
  Sabrina Taldone MD
- An Unusual Presentation Of Myocardial Infarction With Crucial Electrocardiogram Findings
  Michel Ibrahim, MD

University of South Florida

- Recurrent Warts In A Patient With HIV - Cancer Or Infection?
  Chandrashekar Bohra, MD
- A Rare Presentation Of Cat Scratch Disease In The Immunocompetent Adult
  Fabiola Rios de Choudens, MD
- A Mortality Marker: Be Wary Of Troponin Elevations In Thrombotic Microangiopathy
  Kyeesha T. Becoats, MD
- Rare Cases Of Neutropenic Diverticulitis
  Meghana Vellanki, MD
- Primary CNS Lymphoma In A Patient With Systemic Sclerosis
  Morolake Amole, MD
- An (Inborn) Error In The Diagnosis
  Poorvi Kirit Desai, MD
Abstract Title:
Increased Prevalance Of Elevated Hemoglobin A1C In Ambulatory Patients With Characteristics Of The Frailty Syndrome

Abstract Text:
Introduction:
The frailty syndrome is described as a condition of physiological vulnerability and multisystem dysfunction associated with an increased morbidity and mortality in the elderly population. There is some data to suggest that the presence of frailty syndrome is associated with glucose intolerance in older adults without diagnosed diabetes mellitus. The present study aims to report the relationship between frailty characteristics and glycosylated hemoglobin (HbA1c) in an ambulatory primary care population.

Methods:
Prospective study that evaluated a convenience sample of adult patients presenting to a primary care clinic from 31st August 2016 to 15th November 2016. Frailty characteristics were evaluated using the FRAIL questionnaire. Patients were deemed pre-frail if they scored 1 or 2 points, and frail if they scored 3 points on the scale. Laboratory data including HbA1C and low density protein (LDL) were collected from medical records.

Results:
A total of 91 individuals were included in the study. Mean age of patients was 52 ± 17 years, and 64 (70%) of these were female. Forty-eight (52%) individuals were either frail or pre-frail based on FRAIL questionnaire. Median HbA1C was significantly higher in patients who had 1 or more characteristics of the frailty syndrome as compared to those without these characteristics (6.2 (IQR 5.8-8.7) vs 5.8 (IQR 5.5-6.2), p=0.0107). Patients with frail characteristics had a significantly higher prevalence of elevated HbA1c (greater than or equal to 6.5%) as compared to robust individuals (38% vs 16%, p=0.047). There were no significant differences in body mass index (BMI), age, gender or LDL between the two study groups.

Conclusion:
The present study revealed a high prevalence and higher median levels of hemoglobin A1c in ambulatory adult patients with frailty characteristics. Further study is needed to determine if frailty characteristics in the adult population are associated with an additional risk of developing insulin resistance or are instead the result of a common pathophysiologic pathway.
Abstract Title:
Appropriate Utilization Of Peripherally Inserted Central Catheters: It’s Not Always MAGIC

Abstract Text:
Background: Peripherally inserted central catheters (PICCs) are commonly utilized in hospital settings. While PICCs offer convenience and comfort, they are associated with complications, including thrombosis and infection, and are more expensive than other forms of central venous access. The aim of this study was to evaluate the utilization of PICCs at our institution.

Methods: Chart reviews of inpatients who underwent PICC placement from June-August 2016 were conducted. Indications for placement were compared with the Michigan Appropriateness Guide for Intravenous Catheters (MAGIC) guidelines for appropriate PICC insertion, and a cost analysis was performed.

Results: A total of 204 charts were reviewed, of which 174 (85%) revealed an appropriate reason for inserting a PICC. Appropriate indications for PICC insertion included: long term infusate (98%, n=170), total parenteral nutrition (11%, n=19), invasive hemodynamic monitoring (7%, n=12), and central venous access (6%, n=10). Twenty-eight patients had two or more indications for a PICC placement. Of the 30 patients who received a PICC for an indication that did not meet the MAGIC guidelines, 29 patients received an infusate for less than 6 days, and one patient received PICC for chemotherapy with a duration of less than 3 months. In 25% of patients who received a PICC for an appropriate reason based on MAGIC criteria, midline catheters or ultrasound-guided peripheral intravenous catheter (PIV) would have been preferred to PICCs because the infusion duration was 6-14 days. Use of a midline catheter instead of a PICC would have resulted in a twofold to sixfold reduction in supply cost and eliminated the cost and radiation exposure associated with chest radiography required for confirmation of proper PICC position.

Conclusion: Although the use of a PICC was acceptable in the majority of patients, many PICC requests can be redirected towards midlines to improve patient safety, reduce cost, and prevent radiation exposure.
Abstract Title:
Histrionic Behavior: A Unique Presentation Of Creutzfeldt-Jakob Disease

Abstract Text:
Introduction: Prion diseases are a rare and fatal cluster of neurodegenerative changes that cause rapidly progressive dementia by the aggregation of the prion protein within the central nervous system. The spectrum of prion diseases includes Creutzfeldt-Jakob disease (CJD), variant Creutzfeldt-Jakob disease (vCJD), Gerstmann-Sträussler Scheinker syndrome (GSS), fatal familial insomnia (FFI), and kuru. While CJD accounts for the majority of prion diseases, it is still known to be extremely rare. Unfortunately, no successful treatment has been established for this devastating disease. Here, we present an unexpected conclusion to our patient’s initial complaint of weakness and gait disturbance, which only emphasizes the fact that physicians should continue to keep CJD as a differential when confronted with a similar clinical presentation. Case Presentation: A seventy year-old Caucasian female with a past medical history of hypertension, asthma, anxiety and depression, presented with worsening gait imbalance and generalized weakness for the past three months. The family also noted a progressive change in her personality, specifically exhibiting a histrionic behavior. Initial magnetic resonance imaging (MRI) of brain was normal. Physical examination revealed no focal neurologic deficits. Repeated MRI revealed no acute intracranial process. Under suspicion of viral labyrinthitis, the patient was evaluated by otorhinolaryngology. A series of videonystagmography studies disclosed unilateral vestibular dysfunction. The patient received vestibular rehabilitation and physical therapy. However, despite vestibular intervention, the patient’s gait and muscle strength worsened and her memory rapidly deteriorated. Findings of repeated MRI, magnetic resonance spectroscopy and initial cerebrospinal fluid results were non-diagnostic, as well as immunologic and serologic markers. A trial of intravenous immunoglobulin failed to improve her neurologic function. Differential diagnoses considered were post-viral encephalitis, paraneoplastic etiologies and CJD. The cerebrospinal fluid came back positive for the presence of 14-3-3 protein, and repeat MRI showed evolutionary changes of hyperintensity and abnormal restricted diffusion involving the bilateral caudate and lentiform nuclei, suggestive of CJD. The patient had rapidly progressive mental deterioration, along with myoclonus and cerebellar dysfunction. Unfortunately, due to the fatal prognosis, the patient’s family agreed for hospice care.

Conclusion: The case illustrates a common presentation of an extremely rare condition. Despite not having a confirmatory autopsy brain biopsy, it is reasonable to conclude that with the clinical findings, this patient’s presentation is consistent with CJD. Our extensive literature review reveals CJD still remains an infrequently described phenomenon. While uncommon, this condition carries an extremely high mortality rate. Clinicians should maintain a higher index of suspicion in this subset of patients as CJD should be included in the differential diagnosis.
Rethinking Spectrum Of Biliary Disease: Incipient Cholecystitis, Intermediate Entity Between Biliary Colic & Acute Cholecystitis

Abstract Text:
Biliary disease is among the commonest diseases of the digestive system. Both biliary colic and acute cholecystitis present with right upper quadrant (RUQ) pain, with pain persisting for greater than six hours in acute cholecystitis. Acute cholecystitis is an inflammatory process, with the development of fever, leukocytosis and typical findings of inflammatory processes on ultrasonography (US) and cystic duct obstruction on cholescintigraphy. However, a subset of patients present with an intermediate clinical picture, with prolonged abdominal pain suggestive of acute cholecystitis, but a negative US. Patients 1, 2 and 3 all presented with episodic RUQ pain for greater than 24 hours. Patient 2 reported subjective fevers while patient 3 had a leukocytosis, but the three patients were afebrile, hemodynamically stable on admission, RUQ tenderness on abdominal examination and an otherwise normal complete blood count and comprehensive metabolic panel. Interestingly, their RUQ US revealed cholelithiasis without gallbladder inflammation. Due to persistence of prolonged pain, a cholescintigraphy was performed and revealed cystic duct obstruction for all three patients. They were placed bowel rest and started on intravenous fluids and antibiotics. Patients 1 and 2 subsequently underwent an inpatient laparoscopic cholecystectomy with surgical pathology revealing an inflamed gallbladder. Patient 3 was initially reluctant to agree to surgery and left the hospital against medical advice. A follow-up correspondence with the patient revealed he ultimately underwent a cholecystectomy within days of presentation. This case series presents patients who had RUQ pain with tenderness and a negative US but where cholescintigraphy revealed cystic duct obstruction. The authors therefore propose a new hypothetical clinical entity, “Incipient Cholecystitis,” to characterize these individuals. We suggest that patients with similar intermediate clinical presentation should not be labeled as biliary colic alone, as they may have an accelerated rate of progression to acute cholecystitis. We suggest future studies are needed in this specific subset of the population, to further investigate this accelerated progression which is not seen in the “typical” or “classic” indolent biliary colic. This will enable clinicians to characterize their risk of progression, as we feel that these patients may benefit from aggressive initial management and early surgical intervention.
Abstract Title:
A Silent And Debilitating Case Of Demyelinating Disease

Abstract Text:
Chronic inflammatory demyelinating polyneuropathy (CIDP) is an acquired disorder of peripheral nerves and nerve roots. CIDP is a rare condition encountered in today’s medicine, prevalence of CIDP in the United States is 0.8 to 8.9 per 100,000. We believe a high degree of suspicion needs to be maintained as the disease symptoms mimics multiple disorders.

A 48-year-old female with Past medical history significant for essential tremor, hyperlipidemia and anxiety presented to the emergency department with three months of bilateral lower extremity weakness and unstable gait, worsening in the last month. The weakness started one month after she had Anterior Cervical Discectomy and Fusion (ACDF) surgery in April on C6-C7 spine. Pertinent to note that she observed a rapid decline in visual acuity for the past year after consulting several times with an optometrist.

Patient reports that after the operation she had a 40 lbs. weight loss due to dysphagia and started losing balance. Her lower extremities became weaker throughout the day but improved with rest. Patient reported falling twice along with an isolated episode of bladder incontinence. Social history is pertinent for frequent Caribbean cruises every 6 months for the last 3 years.

Physical Exam on admission was pertinent for decreased range of motion in her upper and lower extremities. Motor strength was 4/5 in the lower extremities with weakness on the proximal left side greater than right. Proximal symmetric upper extremity weakness 4/5. Gait was antalgic

During our hospital stay extensive workup was done for Lyme disease, Thyroid disease, Multiple Sclerosis, Myasthenia Gravis, Myopathy, Myositis, Autoimmune diseases and drug toxicity. Statin was stopped and patient was managed with incremental doses of Mestinon for Myasthenia Gravis at first but failed to respond.

Brain and full spine CT + MRI not stating any abnormal processes, neurology proceeded with muscle biopsies of bilateral quadriceps muscles, unfortunately pathology report did not elicit any abnormalities.

A spinal tap was ordered, which showed total protein increase without WBC/RBC or any turbulence in tubes. This lead to a diagnosis of Chronic Immune Demyelinating Polyneuropathy.

Patient received two IVIG infusions and showed significant improvement, along with aggressive PT therapy. She was discharged and followed up with outpatient neurology.

Our patient’s medical history along with pertinent underlying signs and symptoms, presented this case as a likely myopathy related problem. Sudden weight loss, longstanding statin therapy and rapid loss of muscle strength in the background made the muscle biopsy a prior choice versus lumbar puncture.

CIDP seems to be fairly a rare condition, we believed this case can raise awareness and suspicion for a disease that mimics many conditions.
Abstract Title: The Role Of Proton Pump Inhibitors In Insulin Resistance: A Meta-Analysis And Systematic Review.

Abstract Text:
BACKGROUND:
In the pathogenesis of insulin resistance there is an increasing dysfunction of pancreatic beta cells, either through inactivation or apoptosis. Gastrin increases the growth and neo-genesis of the islets of Langerhans; Proton pump inhibitors (PPIs) increase circulating gastrin levels, however, their therapeutic impact in lowering glycosylated hemoglobin remains less well established. In this meta-analysis we aimed to investigate the effect of PPIs on glycemic control in patients with insulin resistance.

METHODS:
Online database search of PubMed, MEDLINE, EMBASE, SCOPUS, COCHRANE, and GOOGLE SCHOLAR was performed (2000 – Present); key bibliographies were reviewed. Studies comparing patients with insulin resistance taking PPIs vs. placebo, and assessing parameters such as HbA1c, HOMA-IR, fasting plasma glucose (FPG) and gastrin levels. Studies quality was assessed using STROBE criteria.

RESULTS:
The search strategy yielded 11 studies, of which 4 studies met our selection criteria. The studies included 176 patients in total; 87 were treated with PPIs while 89 patients were assigned to the control group. Median age in the placebo group was 57.75 years while mean age in the intervention group was 59.25 years. Male/female ratio was 3 to1. Meta-analysis of the included data showed that levels of HbA1c were significantly less in the group of patients who were taking PPIs SMD -0.35, 95% CI -0.66-0.05, p=0.024; levels of FPG were significantly less in patients taking PPIs when compared with control group SMD -0.48, 95% CI -0.87-0.10, p=0.014. There was no significant difference in between the intervention and control group in terms of HOMA-IR (SMD 0.26, 95% CI -0.10-0.62, p=0.105), HOMA-B (SMD 0.26, 95% CI -0.10-0.62, p=0.161), and serum gastrin levels SMD 0.65, 95% CI 0.27-2.13, p=0.001
CONCLUSIONS: PPIs seem to be consistently associated with better glycemic control in patients with Insulin resistance.
Abstract Title:
A Rare Mutation Of The GFAP Gene Leading To The Diagnosis Of Alexander Disease

Abstract Text:
Alexander Disease (AD) is a progressive CNS disease, which is caused by the accumulation of abnormal Rosenthal fibers within astrocytes. The mutation is within the gene encoding the Glial Fibrillary Acidic Protein. This case illustrates the protracted clinical course of a patient with a rare GFAP mutation, E207K, which led to his diagnosis of AD.

A 52 year old male is found down, by his wife. Although he regains consciousness, the wife reports that his voice sounds like "his mouth (is) full of marbles". He is also weak on his right side. He is evaluated for stroke/TIA, both of which are ruled out. The patient's dysphonia and motor weakness resolve. Three months later, the patient again develops changes in his voice, however, the dysphonia is now associated with a choking sensation, coughing and difficulty swallowing. The symptoms progress and the patient is evaluated by ENT, who, on physical exam notes spasmodic movement of his uvula and soft palate. He is treated with Botox injections and is scheduled for Neuro evaluation. Neurology notes an abnormal, wide based gait, adducted arms with decreased swing, decreased stride, slight stagger and pivoting on turns. The patient is given the diagnosis of Progressive Ataxia and Palatal Tremor. Brain MRI demonstrates upper cervical cord and medullary atrophy. The patient is referred for genomic testing. In the interim, he develops significant dyspnea and repeated aspiration, leading to hospitalization. His dysphonia has progressed to a loud rhythmic inspiratory stridor, followed by rhythmic involuntary phonation throughout the expiratory phase. CT chest shows bronchial atresia and impacted airways. Due to his presentation, there is a high suspicion for MS.

Lumbar puncture is performed, however, no mono- or oligo-clonal bands are found. During hospitalization, the genomic profile report comes back positive for a mutation in the gene encoding the Glial Fibrillary Acidic Protein. He is diagnosed, based on the report, with adult onset Alexander Disease. The incidence of AD is estimated to be 1 in 1,000,000 births and predominantly been reported in infants and children. However, with use of genomic testing there has been an increase in the number of adult cases reported. AD in the adult population can be mistaken for other CNS diseases. In fact the symptoms in the adult population can range from generic headaches to the more common presentation of progressive ataxia with palatal tremor. Therefore, such patients should have genetic testing in order to determine whether a mutation in the GFAP gene is present. Ongoing discussion of AD is required to streamline the diagnosis in order to facilitate appropriate treatment options.
Abstract Title:
Portal Vein Thrombosis (PVT) In A Healthy Patient, Why?

Abstract Text:
The incidence of PVT in patients without liver cirrhosis is unclear. The estimated prevalence of PVT in general population is close to 1%, based on a study of 24,000 consecutive autopsies.

A 32 years old female with no significant past medical history presented with acute onset of abdominal pain for one day. The pain was described as achy in nature, RUQ, radiating to the back, 8/10 in severity with no aggravating or relieving factors. She denied symptoms of fever, chills, sweating, nausea, vomiting, chest pain, shortness of breath, urinary or bowel changes. Her only medications were Amoxicillin 500 mg TID for recent upper respiratory infection, and a combined low dose oral estrogen/progesterone contraceptive pill (OCP) for years. She had no significant surgical history. She denied smoking, alcohol, illicit drug use and recent travel. Family history was significant for DVT/PE in her father after a knee surgery.

Upon presentation, her vital signs were pulse oximetry 98% on room air, blood pressure 130/78, pulse 92 and regular, temperature 370 C, respiratory rate 18 and BMI 26.8. She was alert, awake, oriented, and physical exam was positive for mild RUQ tenderness without guarding, rigidity, or rebound. Her labs were all within normal limits, including AST 26, ALT 29, Alkaline phosphatase 68, direct bilirubin 0.10, total bilirubin 0.7 and ßHCG <5 IU/L. CT abdomen with IV contrast showed portal venous thrombus in the right portal vein extending into the left portal vein, with prominence of the portal vein proximal to the thrombi. Lower extremity venous doppler was negative for DVT. Hyper-coagulable studies including homocysteine level, lupus anticoagulant, factor V mutation, antcardiolipin antibodies, prothrombin G20210, protein C, protein S and antithrombin 3 were all negative. CA19-9, CA125, AFP were negative, ruling out possible occult malignancy. RBCs showed normal expression of CD55 and CD59, ruling out paroxysmal nocturnal hemoglobinuria. She was started on subcutaneous low-molecular weight heparin and a plan to start Dabigatran as an outpatient.

PVT can be a diagnostic challenge in an otherwise healthy patient. Although PVT is more common in patients with underlying liver disease or coagulation abnormalities, no apparent cause can be identified in >25% cases. The use of OCP in our patient, may have predisposed to a hyper-coagulable state leading to the development of PVT. This case underscores the importance of high index of clinical suspicion to diagnose PVT in patients without risk factors.
Abstract Title: Ertapenem Induced Thrombocytosis

Abstract Text:
Introduction:
Ertapenem is a carbapenem antibiotic in which inhibits cell-wall synthesis by binding to penicillin-binding proteins and is resistant to most beta-lactamases. It is used to treat intra-abdominal infections, community-acquired pneumonia, complicated UTI, osteomyelitis, and skin infections. The most common side effects that ertapenem can produce include: GI symptoms, transaminitis, and headaches. Ertapenem can produce thrombocytosis but very rare.

Case presentation:
A 68-year-old Female with past medical history of diverticulosis, hypertension, diabetes mellitus type 2, and PAD presented with a syncopal episode and recently had carotid endarterectomy of right carotid four months ago. The patient also had been experiencing hypogastric abdominal pain one week prior. CT abdomen showed rectosigmoid diverticulitis (2nd episode). CT brain was negative. The patient was started on IV Ciprofloxacin 400 mg twice a day and Flagyl 500 mg three times in a day. Initial WBC was 20300 and platelet count was 487000. The patient's WBC count continued to trend up after three days of antibiotic treatment. CT abdomen was repeated showing peri-diverticular abscess. CT guided drainage was performed but was unsuccessful. Subsequently, She was switched to Ertapenem. The next day platelet count was 552. Over the next several days the patient’s WBC count trended downward to normal range, but platelets trended upward to 610. As discharge planning started to approach, it was noted that the patient should continue IV antibiotics for an additional 14 days. Once patient’s WBC normalized, Infectious Disease team recommended to switch back to PO Ciprofloxacin and Flagyl due to having no success of placing a PICC line. At the time of discharge, WBC count was 10.6 and platelet count was 465. The patient had clinically improved significantly and was discharged home and told to follow up as an outpatient.

Discussion:
Thrombocytosis is a side effect that can interfere with the plan of care. Initially, her platelet count was in the high 400’s. Due to the fact that the platelet count jumped almost 100,000, thrombocytosis is something everyone should be aware of. Reported adverse effects of ertapenem do include thrombocytosis but is between 4-7%. This reported case shows the importance of antibiotic choice as well how this could have been prevented with a possible antibiotic switch again. The complication of the patient staying in the hospital could have been reduced if this would have been a greater common side effect for physicians to be aware if. There is limited data showing that Ertapenem causes thrombocytosis and can be looked at further. The patient had clinically improved significantly and was discharged home and told to follow up as an outpatient.
Abstract Title:
The Enigma Of Exercise-Induced Pulmonary Hypertension: Recognition, Treatment And Understanding

Abstract Text:
Introduction: Patients presenting with symptoms of angina, shortness of breath and fatigue with negative findings on stress nuclear, echocardiography, left heart catheterization or pulmonary function tests are often investigated with exercise right heart catheterization. Patients displaying pulmonary hypertension or exercise-induced pulmonary hypertension (EIPH) were isolated and studied further to elaborate upon similarities and differences between them and those with normal pulmonary circulation pressures.

Methods: Clinical data was obtained from 172 randomly and retrospectively selected patients from the Registry of Right Heart Catheterization at the Institute of Cardiovascular Excellence in Ocala, Florida. This included data on hemodynamics, cardiopulmonary exercise testing (CPET), and echocardiogram findings. Patients with EIPH had a resting mean pulmonary arterial pressure (mPAP) below 25 mmHg and on exercise above 25 mmHg. Patients with resting pulmonary hypertension were stratified into WHO group 1 (pulmonary arterial hypertension) and WHO group 2 (pulmonary hypertension due to left heart disease). Prior response to treatment with long-acting nitrates was also reviewed.

Results: Of the 172 patients, 27 were found to have EIPH, 24 had WHO group 1 pulmonary hypertension, 37 had WHO group 2 pulmonary hypertension, and remaining 54 did not have pulmonary hypertension. 30 patients did not have any exercise data and 4 were unclassified. No significant differences were found across any groups in resting or exercise CPET performance. The mean left ventricular ejection fraction (LVEF) for patients who underwent exercise testing was between 53-57%. The mean VO2 max for those with resting pulmonary hypertension or EIPH was below 20 ml/kg/min. The mean age of exercise testers was 71.67 years and 58.89 for those without pulmonary hypertension (p<0.01). Additionally we found that for every 1-year increase in age, the odds of developing EIPH increased by 1.08. The use of long-acting nitrate was associated with improvement of symptoms in symptomatic patients. Most of the EIPH patients were noted to have exercise-induced diastolic dysfunction. According to CPET data collected, many EIPH patients also had concomitant chronotropic incompetance.

Conclusion: According to our findings, EIPH represents a subset of patients who have negative left-heart stress cardiac findings yet have underlying cardiovascular abnormalities significant enough to require treatment for symptomatic relief during exercise. This includes diastolic dysfunction and chronotropic incompetency. It is important to note that exhibition of symptoms may not be a measure of cardiac disease severity given similar disease findings in those symptomatic and those not symptomatic. In our study cardiovascular performance was found to be equally poor in patients with EIPH as compared to those with resting pulmonary hypertension. Underlying pathogenesis might involve microvascular angina leading to diastolic dysfunction. Long-acting nitrates are used for symptomatic relief and beta-blockers are contraindicated in all patients demonstrating chronotropic incompetency.
Abstract Title:
How To “Gain” The Most Out Of Electrocardiography

Abstract Text:

Background:
Static and continuous EKG recording can provide data to aid in the diagnosis and treatment of cardiac
arrhythmias. There are scenarios in which the type and source of activation is not clear from tracings
obtained using standard methods, particularly as it pertains to atrial activity. Options to increase diagnostic
utility include placing electrodes in unconventional locations as well as unique configurations, such as the
Lewis lead setup or rarely, transesophageal electrodes. An alternative technique is to increase the amplitude
of the signals, or so-called “gain,” (standard is 10 mm/mV) to help uncover subtle signals. We wanted to
explore using this technique with respect to its clinical utility, the technical aspects, and its presence in the
literature.

Methods:
We uncovered several examples in which increasing the gain provided clinically significant information. We
subsequently looked at the options for gain changes on several commercially available EKG systems. Several
EKG technicians, nurses, and resident physicians were polled regarding their understanding of the concept
and ability to change gain settings. Finally, we performed an extensive literature search on the use of EKG
gain.

Findings:
Our clinical examples show that increasing the gain aided in confirming capture of an atrial pacemaker,
confirming the presence or absence of a P wave, and determining the type of rhythm. The option to change
the gain was either on the initial screen or on a secondary screen, which was easy to access. The calibration
was either relative (0.5 / 1 / 2) with 1 being the standard 10 mm/mV, or was in actual mm/mV (5 / 10 / 20
and on 1 system, 40 mm/mV was available). Most of the EKG technicians, nurses, and resident physicians
were unaware of this technique or how to modify gain settings. We were unable to find any published
literature concerning gain modulation when searching multiple sources, including MEDLINE, PubMed, and
Google Scholar.

Conclusion:
EKG amplitude modulation is a simple maneuver available on many commercially available systems. It can be
used to improve the diagnostic accuracy of EKGs without the need for invasive procedures or additional
equipment, especially for atrial rhythms. Furthermore, it is not well represented in the literature and many
providers we questioned were not familiar with it. Physicians should be aware of this option when using
electrocardiography.
An Underrecognized Neurotoxin: Cefepime-Induced Status Epilepticus In The Renally Impaired

Introduction
Cefepime, a 4th-generation cephalosporin antibiotic with an extended spectrum commonly used in the hospital setting. It is favored due to its relatively low rate of serious side-effects although it is rarely associated with neurotoxicity and blood dyscrasias. Cefepime is renally excreted, however its levels are not commonly monitored in the serum. In this case we will demonstrate the potential for serious side effects related to improper Cefepime dosing.

Case Presentation
A 65-year old man with a medical history of end-stage renal disease on hemodialysis, peripheral artery disease, and hospitalization 1 month prior for lower extremity P. aeruginosa cellulitis complicated by pulmonary edema from failure of peritoneal dialysis. The patient was treated with piperacillin-tazobactam to apparent resolution of his cellulitis. On this prior hospitalization the patient was started on hemodialysis before discharge and was discharged in stable condition. On his subsequent presentation the patient was admitted for lower extremity abscess with overlying cellulitis again due to P. aeruginosa. The patient underwent incision and drainage of his abscess and was then started on Cefepime 1g every 24 hours. Three days after initiation of Cefepime treatment, the patient was noted to have mental status changes which manifested as increased aggression and personality changes. His symptoms were initially attributed to toxic metabolic encephalopathy. A CT scan and MRI of the brain were both negative. On the fourth hospital day the patient began to experience generalized convulsive seizures with epileptiform findings noted on EEG. Despite the addition of 3 antiepileptic drugs; Levetiracetam, Lacosamide, and Phenytoin, the patient remained in status epilepticus. The patient’s seizure activities aborted after one day of Cefepime discontinuation and after undergoing hemodialysis treatment. Withdrawal of the antiepileptic drugs over the next 4 days did not cause recurrence of seizure activity.

Discussion
Cefepime is not commonly considered as a seizure inducing antibiotic. This case demonstrates the potential for severe side effects in patients with renal impairment. Rare cases of Cefepime-induced neurotoxicity have been reported in the past, however the true rates are possibly underrecognized in patients with multiple medical comorbidities. In patients with acute changes in medical status, proper dosing of common medications must be recognized in order to avoid medical error and morbidity.
Abstract Title:
The Effects Of A Resident Outpatient Clinic Intervention On Hospital Readmission Rates

Abstract Text:
BACKGROUND
Hospital readmissions are a complex, multifaceted problem that carries serious impact on patients and utilization of healthcare resources. Increased hospitalizations are associated with elevated morbidity and mortality and significant Medicare expenditures annually. Previous studies examining interventions such as follow up by primary care physicians, multi-disciplinary clinics, and discharge planning improvements, have shown varying levels of success.

RESEARCH QUESTION
Does follow up at a resident-run primary care clinic after hospitalization decrease future readmissions?

METHODS
Our resident clinic began in July 2014, and records of patients with a hospital admission after that date but before visiting our clinic were evaluated. Utilizing the hospital electronic medical record, a list of healthcare encounters were de-identified then analyzed using an original Java coding language algorithm designed to count total number of admissions, ER visits, and inpatient days before and after the initial date of establishment at our clinic. All patients meeting criteria were included, regardless of number of clinic appointments, age, or comorbidities. Control patients were chosen randomly from the total list of patients hospitalized during the same time frame. Both control and clinic patients were also analyzed according to health insurance status. Statistical significance was calculated using paired student T-tests and one-way ANOVA analyses.

RESULTS
A total of 224 patients were evaluated from our clinic population who had a hospital admission prior to their first appointment and compared with 285 control patients. Those seen in the resident clinic had a significant decrease in readmissions compared to controls, regardless of insurance status. There was also a significant decrease in the length of stay for clinic patients. The control population did not demonstrate any statistically significant improvements. There was no significant change in the number of ER visits for either group.

CONCLUSION
These results show a significant decrease in number of readmissions and length of stay for our clinic population, both with and without health insurance. No significant changes were observed on number of ER visits in our intervention or control patient groups.

DISCUSSION
Interventions which have previously been utilized to decrease readmissions have had varying levels of success, with highest levels seen in highly targeted conditions like asthma and heart failure. Our current study did not assess efficacy for specific conditions, but rather revealed data that a resident clinic follow up effectively decreased hospital readmissions. This suggests that a resident-run clinic resource stands to decrease readmission rates and the average duration of hospital stay for both insured and uninsured patients. Examination of additional variables, such as co-morbidities may reveal further meaningful data. Interventions to decrease hospital admissions are often resource-intensive, particularly among uninsured populations. Resident-driven clinics are already incorporated into the costs expended for training physicians and represent a highly individualized resource to patients.
Abstract Title: Meningococcemia In The Absence Of Meningeal Signs, Serotype W135

Abstract Text:
Meningococcemia without meningitis is a rare, but life threatening presentation of disseminated Neisseria meningitidis. The symptomatology is often non-specific at initial presentation and may be indistinguishable from the symptoms associated with influenza and other viral illnesses as it does not present with meningeal signs.

We present a case of a previously healthy 70 y/o female who presented to the emergency department with a four-day history of loose stools, and a one-day history of fever and chills. Additionally, she had been experiencing three days of severe myalgias, arthralgias, diffuse abdominal discomfort, and a sore throat. One week prior to presentation, the patient traveled to Chile and Argentina but denied any sick contacts or changes in medications. She denied neck stiffness, headache, photosensitivity, shortness of breath and dysuria.

Examination of the patient revealed a female in no acute distress. On admission, her temperature was 102.8F, heart rate 123, blood pressure 158/76, respiratory rate 20, and oxygen saturation of 100% on room air. Pertinent positives on physical exam were an erythematous oropharynx and hypoactive bowel sounds. Pertinent lab findings were normocytic anemia and a lactic acid of 2.8.

The patient was started on IV fluids and antibiotics for suspected gastroenteritis, however she continued to have loose stools, fever, nausea and vomiting. Within the first 24 hours of her admission, she became hypotensive and hypoxic requiring transfer to the ICU where she was intubated and required pressor support. At this time, blood, urine, and stool cultures as well as influenza swab remained negative. She then developed multi-system organ failure secondary to sepsis with DIC. The patient remained on maximum life support when blood cultures finally grew Neisseria meningitides. Antibiotic management was tailored accordingly and she was weaned of life support as tolerated.

Discussion
Meningococcemia is an infection caused by Neisseria Meningitis which often progresses rapidly and can have devastating consequences. In 2012, Chile experienced an outbreak of meningococcal disease with the majority of the cases identifying as serogroup W135. A retrospective study demonstrated that the most common symptoms of this serotype included fever, cold symptoms, and diarrhea while meningeal signs had a low frequency. Our patient presented similarly to the patients described in this study, and due to her recent travel history to Chile and positive blood cultures that confirmed serotype W135, we believe that the patient developed the infection during her travels. Knowing this, it is important that clinicians consider meningococcemia in their initial differential in patients that present with non-specific symptoms and have recent travel to Chile and other endemic areas, as severe complications can be limited with prompt initiation of antibiotic therapy.
Abstract Title:
Temperamental Temporal Lobe: All Psychosis Aren’t Created Equal

Abstract Text:
Introduction:
Psychosis is a diagnosis that is associated with significant stigma which can often result in patients being labelled, profiled or just judged when they present acutely ill. In the literature there is evident bias accompanying the diagnosis, however significant overlap between epilepsy and psychotic disorders is also noted. The case below demonstrates how removing the Bias and Judgment, and proper sub-specialist assistance results in a new options and diagnosis for a young healthy patient.

Case Description
A 37-year-old Caucasian female past medical learning disability, vertigo that was debilitating at an early age, recent diagnosis of schizophrenia 3 years’ prior after “an episode” off medications for several months. She presented to our facility in the ED via EMS with a report of last seen well about 1 hour prior. Patient was found at home with a swollen Jaw, covered in blood and hair. The patient at the time was unable to provide any history and was incoherent as to the events of that day. Due to her incoherent state, her parents provided the history. They verbalized behavioral abnormalities in the days prior, such as episodes of dyspraxia, articulation issues, diminished levels of consciousness, memory impairment and significant difficulty awaking from sleep.

During the patient admission process insidiously patient had an episode of Loss of consciousness, not responsive to noxious stimuli and rapid eye movements. The episode was insidious in onset and when the episode resolved, she had incoherent memory pattern and gaps. An Encephalopathy work-up ensued during which more symptoms developed visual and auditory hallucinations, agitation and aggression, associated with memory loss and confusion events. MRI, EEG noted thickening and enhancement on the left temporal lobe and abnormal waves pattern respectively. A spinal tap and NDMA encephalitis panel conducted were negative, a 24-hour EEG conducted with video showed abnormal wave formation in the same left temporal area. Lamictal was initiated and her episodes decreased and memory improved. Without recurrent episode of catatonia, hallucinations the patient was discharged with a diagnosis of temporal lobe epilepsy and proper follow up.

Discussion:
Studies show there is some overlap in epilepsy and psychiatric disease. Inter-ictal psychosis prevalence, 4 - 10% with epilepsy, mainly temporal lobe epilepsy, and with chronicity resembles chronic schizophrenia. This case resulted in medicine, neurology and psychiatry to combine forces as medical scientist with the goal of identifying causality. Ignoring the stigma of prior diagnoses or possible hypothesis that its due to her being off her medications with an acute psychotic episode preventing backer act, over medication and institutionalization but giving her a new start. This case sheds light on mental illness and seizures, there is overlap, differences and if not on the differential can be missed diagnosed.
Abstract Title:
Comparison Of Modified And Full Glasgow-Blatchford Scores Performance In Patients With Non-Variceal Upper Gastrointestinal Bleed

Abstract Text:
Objective: Acute upper gastrointestinal bleeding (UGIB) is a common medical emergency with an incidence of 100 per 100,000 population per year. Patients with acute UGIB mostly present with one or more symptoms including hematemesis, melena, hematochezia and occult blood loss. Several scoring systems have been developed to stratify the risk of complications and resource allocation for management of patients presenting with UGIB. Among them, Glasgow-Blatchford (GBS) score has been extensively evaluated and compared with other scoring systems for risk stratification. Subsequently, a modified GBS was developed to predict outcomes in UGIB. The advantage of modified GBS is that it eliminates subjective components of the full score and it is calculated using number of objective clinical and laboratory variables, thus making it helpful in patients who are unable to provide adequate medical history.

Aim: To externally validate the modified GBS with full GBS for prediction of major clinical outcomes in patients with UGIB.

Methods: A retrospective cohort study of patients over age of 18 years admitted in 2015 to a tertiary care center with non-variceal GI bleeding was done. Patients with a history of liver cirrhosis or variceal bleeding were excluded. Our primary outcome was composite of: 1) inpatient mortality; 2) need for endoscopic, surgical or radiologic procedure to control the bleed or to treat the underlying source of the bleed; 3) need for blood transfusion; 4) rebleed in the hospital. Comparison of the two scores was done using area under the receiver operating characteristics curve.

Results: 314 patients were included in the study. Median age was 65.7 years. In-hospital mortality was 2.5% (8 patients). An intervention to control the bleeding was performed in 90 patients (28.7%) while 52.0% (163 patients) required PRBC transfusion (Table 1). Analysis of area under receiver operating characteristic revealed that performance of the modified GBS score (AUROC 0.76, 95% CI 0.70 - 0.82) was comparable to full GBS (AUROC 0.76, 95% CI 0.70 - 0.82) in predicting in-hospital mortality or need for any therapeutic endoscopic, surgical or radiologic intervention or PRBC transfusion (Figure 1). Sensitivity and specificity of full GBS score ≥1 for predicting the primary outcome was 98.9% and 10.26% respectively, modified GBS had a sensitivity and a specificity of 97.46% and 19.66% respectively.

Conclusions: In patients with non-variceal UGIB; modified GBS performed as well as full GBS score in predicting complications and the need for hospital based interventions. Modified GBS is simple to calculate and can serve as an objective tool for risk stratification of patients presenting with non-variceal UGIB.
Abstract Title:
Looks Can Be Deceiving: A Case Report On Multicentric Reticulohistiocytosis

Abstract Text:
Introduction: Multicentric Reticulohistiocytosis (MRH) is a rare inflammatory disease that predominantly involves the skin and bones in addition to having systemic involvement of other organs. This symmetric erosive polyarthritis can easily mimic rheumatoid arthritis (RA), however, it does not usually respond to standard therapy for RA. We here report an intriguing case of an erosive arthritis that posed a diagnostic dilemma to the physicians.

Case: A 32 year old Hispanic woman presented to the rheumatology clinic with a provisional diagnosis of RA that was unresponsive to conventional treatment with methotrexate, prednisone and adalimumab. The diagnosis was made by her previous rheumatologist based on her history of 4 years of progressive pain and morning stiffness in the right shoulder, right knee and bilateral hands and wrist, presence of positive rheumatoid factor and Xray findings of erosive arthritis. After establishing care with us, it was also noted that the patient had pruritic papulonodular lesions around multiple joints. Musculoskeletal examination revealed severely reduced range of motion of the right shoulder, bilateral metacarpophalangeal (MCP), and the proximal and distal inter-phalangeal (PIP and DIP) joints. Repeat labs revealed elevated ESR, CRP and RF levels and negative titers for other autoimmune markers. Owing to the lack of response to adalimumab, the patient was given a trial of other biologics such as etanercept, abatacept and golimumab with limited success.

Given that the patient had atypical features for RA such as arthritis mutilans of the DIP joint, papulonodular skin lesions and lack of response to conventional therapy for RA, the possibility of an alternative diagnosis was entertained. In pursuit of this, the patient underwent a skin biopsy that revealed findings in favor of MRH as outlined below. Thus rituximab was initiated for her MRH. Six months into her follow up, she notes improvement in her arthritic symptoms and skin lesions.

Discussion: MRH is a rare form of arthritis that can manifest as symmetric erosive polyarthritis along with stiffness that closely resembles RA. The most commonly involved joints are MCP, PIP and DIP joints. Skin findings present as papulonodular lesions. Lab studies are usually negative for autoimmune markers. The diagnostic hallmark is the skin and synovial biopsy characterized by histiocytes and multinucleated giant cells with ground-glass eosinophilic cytoplasm. MRH can have important ramifications as the condition frequently coexists with neoplasms and autoimmune diseases. Thus it is prudent to not be misled by it’s clinical resemblance with RA. Given it’s rarity, treatment is based on experience obtained from other case reports. NSAIDS, steroids and DMARDs have been tried with limited success. Some authors have reported success with rituximab and other biologic agents.
Abstract Title:
“Low Sugar” Due To “Big IGF”: A Case Report Of Persistent Hypoglycemia Secondary To Non-Islet Cell Tumor

Abstract Text:
Hypoglycemia secondary to excess high molecular weight insulin-like growth factor (IGF-2) may be seen as a paraneoplastic syndrome in mesenchymal and epithelial tumors, known as non-islet cell tumor hypoglycemia (NICTH). We report a case of NICTH as the presenting manifestation of an underlying hepatic neoplastic disease.

A 33-year-old African American male presented with one-week history of episodic sweating, palpitations, and confusion resolving with food. He also reported abdominal fullness and unintentional 40 lb. weight loss over the last one month. He denied using hypoglycemic agents. Initial physical examination revealed hepatosplenomegaly without ascites or lymphadenopathy. Laboratory data showed blood glucose of 45 mg/dl and a mildly elevated aspartate aminotransferase (AST) of 149 U/L. Viral hepatitis panel and human immunodeficiency virus (HIV) screen were negative. Urine drug screen was negative for sulfonylureas. ACTH stimulation test did not reveal adrenal insufficiency. Serum insulin, proinsulin and C-peptide, GH and IGF-1 were low (14 ng/ml) whereas serum big IGF-2 (354 ng/ml) was elevated. Serum total IGF-2 level was, however, normal (380 ng/ml). Serum alpha-fetoprotein was 60,500 ng/mL, whereas B-HCG, Cancer Ag 19-9, and CEA levels were normal. Abdominal computed tomography (CT) showed hepatomegaly with multiple lesions concerning for metastasis without an obvious primary source of malignancy. CT chest and MRI brain was unremarkable. MRI of thoracic and lumbar spine revealed multiple bony metastases. Based on these findings including remarkably elevated AFP a diagnosis of NICTH secondary to hepatocellular carcinoma was made. His hypoglycemia was only responsive to continuous infusion of 20% dextrose water and high dose oral prednisone. Considering the poor prognosis, he refused further diagnostic/therapeutic interventions and chose hospice care.

There are no available data on the exact incidence or prevalence of NICTH, however, it has been estimated that NICTH is four times less common than insulinoma. It is a complication of solid tumors of mesenchymal and epithelial origins such as hepatocellular carcinoma, gastric carcinoma, mesothelioma etc. The proposed mechanism of hypoglycemia is excessive tumor secretion of high molecular weight IGF-2 termed big IGF-2, which binds insulin and IGF receptors and mimics insulin. Serum levels of glucose, insulin, proinsulin, C-peptide, GH and IGF-1 are decreased and big IGF-2 levels are increased. Total IGF-2 may either be increased, decreased or normal. Surgical resection of the tumor (whenever possible) is the treatment of choice and usually results in resolution of hypoglycemia. Surgical debulking can be considered if complete resection is not possible. Palliative options include continuous infusion of dextrose, IV or IM glucagon and high doses of glucocorticoids with or without growth hormone.

NICTH is a rare but serious paraneoplastic syndrome involving progressive hypoglycemia in the setting of a wide variety of benign and malignant tumors, due to tumor production of high molecular weight IGF-II.
Introd

Introduction: Lower gastrointestinal bleeding (LGIB) is a common reason for hospital admission. LGIB is defined as bleeding that emanates from a source distal to the ligament of Treitz. The most common etiology of LGIB is diverticular bleeding and accounts for 20-65% of cases of LGIB. Other causes include ischemic colitis, angioectasia, hemorrhoids, colorectal neoplasia and others. There is a paucity of validated prognostic scoring systems for risk stratification and to predict outcomes in patients with LGIB. Glasgow-Blatchford score (GBS) has been used as a triage tool in the emergency department to assess the need for endoscopic intervention in patients who present with an upper gastrointestinal (GI) bleed (UGIB). However it has not been evaluated in patients with LGIB.

Aim: To assess the performance of Glasgow-Blatchford score in predicting the need for endoscopic, radiologic or surgical intervention, need for blood transfusion, re-bleed during hospitalization, and death in patients with LGIB.

Methods: A retrospective cohort study was performed by reviewing charts of 570 patients admitted to Florida Hospital Orlando with non-variceal GI bleeding in 2015. Patients with a history of liver cirrhosis or variceal bleeding were excluded. The primary outcome was a combined outcome of inpatient mortality, need for endoscopic, radiologic or surgical interventions, rebleeding and need for blood transfusion.

Results: A total of 570 patients were included in the study. The primary outcome occurred in 290 (50.88%) patients. Analysis of area under receiver operating characteristic curve (AUROC) for GBS in predicting the primary outcome revealed that its performance is comparable in patients with LGIB (AUROC 0.74, 95% CI 0.67-0.80) and UGIB (AUROC 0.75, 95% CI 0.70-0.81). Glasgow-Blatchford score of ≥1 had 92.5% sensitivity and 23.3% specificity for the primary outcome in LGIB. Glasgow-Blatchford score of ≥1 had sensitivity of 98.9% and specificity of 10.26% for the primary outcome in UGIB.

Conclusion: The results of our study support that Glasgow-Blatchford score can be extended for use in LGIB. This score will aid in early risk stratification of patients with LGIB resulting in triage to appropriate levels of care and appropriate resource utilization. Additional prospective large scale studies are warranted for external validation and confirmation of our results.
Abstract Title:
An Unusual Case Of Bilateral Pneumonia: Mushroom Worker’s Lung Disease

Abstract Text:
Mushroom Worker’s Lung disease, a form of hypersensitivity pneumonitis, is a complex syndrome caused by an immunological reaction to inhaled antigens. Early diagnosis and removal from antigen exposure are critically important in its management.

Case: A 48-year-old male with no prior history presented with 2 weeks of fevers, productive cough and dyspnea on exertion. He denied hemoptysis, weight loss or night sweats as well as chemical exposures or inhalations. He had started work 2 months prior as a heavy equipment operator in a mushroom factory, moving manure and compost with a front-end loader. He denied tobacco history but did smoke marijuana daily. On arrival to the ER his oxygen saturation was 83% on room air, and he had fevers, tachycardia and leukocytosis with neutrophil-predominance. Exam revealed bibasilar inspiratory crackles and ABG showed mild hypoxemia with increased A-a gradient. Chest x-ray showed dense right upper lobe and left middle lobe opacities, and he was started on a fluoroquinolone for bilateral community-acquired pneumonia. CT scan showed diffuse mosaic pattern in the upper lung fields, with superimposed airspace consolidation. This and his occupational history raised concern for hypersensitivity pneumonitis. Bronchoscopy was done and was essentially normal, and BAL had predominantly neutrophilic infiltrate. Cultures grew only normal flora. Influenza, HIV, hepatitis panel, ANA, and TB testing were all negative. His clinical presentation of fevers and leukocytosis as well as BAL findings were thought to be consistent with a bacterial pneumonia, and he was discharged home on oral antibiotics. However, one month later he was again hospitalized for sudden onset of shortness of breath while at work at the factory. Repeat CT showed persistent bilateral pulmonary infiltrates with ground glass appearance. On this hospitalization he had a thorascopic lung biopsy, which showed cellular interstitial infiltrates and peribronchial noncaseating granulomas consistent with hypersensitivity reaction. There was also a high degree of superimposed organizing pneumonia. He was discharged from the hospital on steroids. On one-month follow up his symptoms had resolved, without any further dyspnea or cough. He remained on a steroid taper and had left his job at the mushroom factory. Repeat x-ray showed resolution of upper lobe infiltrates, and PFTs were essentially normal.

Discussion: This case draws attention to the some of the difficulties in making the diagnosis of hypersensitivity pneumonitis. For this patient with superimposed organizing pneumonia, chest x-ray, CT, pulmonary function tests and even bronchoscopy with BAL were nonspecific and inconclusive. Invasive lung biopsy was necessary to make the final diagnosis. This case also demonstrates the importance of obtaining a relevant occupational and exposure history in such patients, as diagnosis requires a high index of suspicion in patients with compatible symptoms and history.
Abstract Title: Loeffler's With A Diagnostic Twist: Advancement In Cardiac MRI.

Abstract Text:
Introduction Loeffler’s endocarditis is a rare infiltrative cardiomyopathy with hypereosinophilia. This case describes a patient with relatively acute onset congestive heart failure symptoms leading to a diagnosis of Loeffler’s endocarditis. Workup of the patient including cardiac imaging techniques (echocardiogram and Cardiac MRI) provides rare and diagnostic pictures of the infiltrative process. Bone marrow biopsy confirmed the suspected disease with myelofibrosis and hypereosinophilia.

Case Description 51 year old African American man presented with shortness of breath and Bilateral LE edema. Symptoms began worsening 1 week prior to presentation. Initially symptoms started as LE swelling, which progressed to involve diffuse swelling from his feet to his abdomen as well as dyspnea on exertion. On physical exam, the patient had diffuse anasarca with 3+ pitting edema extending from his feet to sacrum. He had a 3/6 systolic murmur over his mitral area with radiation to axilla. He also had decreased breath sounds BL. Initial Chest x-ray with BL pleural effusions with left greater than right. He was admitted to the hospital and was started on IV Lasix with twice daily dosing. He had thoracentesis performed consistent with transudate with minimal improvement in symptoms. The Lasix was transitioned to a drip which he was maintained on for several days. An echocardiogram was performed which demonstrated endocardial thickening with obliteration of apices, normal LV function EF 65-70%, thickened mitral and tricuspid leaflets with severe mitral regurge, and biatrial enlargement with dilation of inferior vena cava. Subsequently, a cardiac MRI was obtained demonstrated obliteration of the apices with delayed enhancement suggestive of Loeffler’s endocarditis vs Endomyocardial fibrosis. Labwork included peripheral smear which revealed leukocytosis, thrombocytopenia and minimal eosinophilia. Flow cytometry on blood smear confirmed eosinophilia. Bone marrow biopsy was also obtained further demonstrating eosinophilia and myelofibrosis.

Discussion The case presents a rare and challenging diagnosis of Loeffler’s endocarditis. Echocardiogram imaging revealed typical findings and narrowed the diagnosis largely to Loeffler’s endocarditis and endomyocardial fibrosis. The diagnosis was confirmed with peripheral blood smear findings and bone marrow biopsy. Cardiac MRI was obtained further confirming the diagnosis. This case demonstrates the utility of cardiac Imaging, with echocardiogram and Cardiac MRI, combined with peripheral blood smear/BM biopsy in making the diagnosis of Loeffler’s endocarditis without the need for a high risk endomyocardial biopsy.
Heart Stopping Regadenoson Infusion

Abstract Text:
Introduction: Regadenoson is a selective A2A receptor agonist that is commonly used for pharmacological stress testing in association to myocardial nuclear perfusion imaging. The incidence of asystole with regadenoson infusion compared to adenosine is unknown. To our knowledge, there have been only two cases reported. This case describes a pharmacological stress test performed with regadenoson infusion in an outpatient setting that induced asystole in an otherwise stable patient.

Case Description: A 63 year old female with a past medical history of hypertension, hypothyroidism and asthma was referred for an outpatient pharmacological stress test with myocardial perfusion scanning for a preoperative surgical evaluation due to a change in her EKG suggesting an indeterminate infarction. She had a remote cardiac catheterization over 5 years ago which was reported with no significant abnormalities. The patient had reduced functional capacity making her ineligible for exercise stress test. Her baseline medications included clonidine, valsartan, and hydrochlorothiazide. The resting EKG showed a heart rate of 61 bpm in normal sinus rhythm. Within one minute after administration of regadenoson the patient developed bradycardia, lost consciousness and went into asystole. Chest compressions were started as ACLS protocol was initiated and aminophylline was administered. Asystole lasted approximately 30 seconds. She was observed overnight and there were no further arrhythmias. After the asystolic event, the patient’s only complaint was fatigue and soreness around the site of chest compressions.

Discussion: This case illustrates that regadenoson can cause asystole and hemodynamic collapse in stable patients. This is a rare side effect as this has not been well reported in the past and this is only the third case described in the literature. The patient regained a rhythm seconds after being given aminophylline, which is a reversal agent for regadenoson. The associated risk factors or underlying mechanism remain undefined, but may involve effects on adenosine receptors other than A2A in combination with heightened vasovagal response in susceptible individuals. Furthermore, it highlights the need to understand the potential for serious side effects such as cardiac arrest in cases such as this and to have available resuscitation equipment during administration of vasodilators.
Abstract Title:
Evaluation Of The Validity And Performance Of The SIRS Criteria Vs Qsofa In Predicting ICU Admission And In-Hospital Mortality

Abstract Text:
Background: A clinical score termed quick sepsis organ dysfunction assessment (qSOFA): respiratory rate of 22/min or greater, altered mentation, or systolic blood pressure less than 100 mm/Hg, was formed in order to rapidly identify patients with poor outcomes and has been suggested as a possible replacement for the widely used systemic inflammatory response syndrome (SIRS) criteria: leukocyte count >12,000/mm3 or <4000/mm3, heart rate >90/min, temperature >38°c or < 36°c, respiratory rate ≥ 20. SIRS has been proven to be a better screening tool of patients with sepsis for poor outcomes in comparison to qSOFA. Our hypothesis is that SIRS is more sensitive, while qSOFA is more specific in predicting intensive care unit (ICU) admission and in-hospital mortality.

Methods: This is a retrospective observational cross sectional study of 600 patients who met SIRS criteria of ≥ 2 during a six-month period in Kendall Regional Medical Center. Inclusion criteria are patients between the ages >18, male and female, who met criteria for SIRS, and no exclusion criteria. We selected patients with a qSOFA score ≥2 and compared their ICU admission rates and in-hospital mortality to those who were solely SIRS positive. In these 2 groups of patients, we compared sensitivities, specificities, positive predictive values, and negative predictive values. With the data collected, we used the Chi-square test for further validation and determination of statistical significance.

Results: This is preliminary data of 171 patients who met SIRS criteria ≥2, of which 49 patients met criteria for qSOFA ≥2. In total, there were 55 ICU admissions and 13 in-hospital deaths (relative risk between SIRS and qSOFA for ICU admissions and in-hospital mortality was 1.83, 95% CI=1.2-2.7 and 2.6, 95% CI=0.94-7.5 respectively). The sensitivity of SIRS and qSOFA in predicting ICU admission was 78% and 67% respectively, while the specificity was 41% and 81% respectively (P=0.004). The sensitivity of SIRS and qSOFA in predicting in-hospital mortality was 85% and 54% respectively, while the specificity was 53% and 73% respectively (P=0.055).

Conclusion: The results of this preliminary data suggest while SIRS is a more sensitive and statistically superior screening tool compared to qSOFA, qSOFA proves to be more specific and statistically significant in predicting ICU admission rates.
Abstract Title:
ACE Inhibitor Induced Angioedema: New Paradigm In Clinical Management

Abstract Text:
Angiotensin-Converting Enzyme Inhibitor (ACEI) induced angioedema has been a long known adverse drug reaction, accounting for almost thirty percent of angioedema cases that present to the emergency department, with an overall incidence ranging from 0.1 to 0.7 percent. Only ten percent of these cases are severe enough to cause airway obstruction requiring emergent airway protection. However, these number might be currently underestimated due to new guidelines upgrading ACEI to first line antihypertensive. We present a case of a young male patient with severe ACEI induced angioedema, our discussion will emphasize the role and efficacy of conventional management.

A 36-year-old male, with history of essential hypertension and alcohol misuse was admitted for intractable nausea and vomiting. On admission, diagnosis of delirium tremens was made, and the patient was transferred to the ICU and treated accordingly. Upon symptom resolution, his antihypertensive medication was reconciled, 5 mg of Lisinopril daily. Ten hours after the first dose, he complained of throat swelling and difficulty breathing. Physical exam revealed swelling of the soft palate and uvula, stridor and wheezing were not appreciated. The diagnosis of ACEI induced angioedema was made; Lisinopril was discontinued, and IV methylprednisolone, diphenhydramine, and famotidine were administered. Follow up assessment 90 minutes later, demonstrated 47 percent of oxygen saturation. Endotracheal intubation was attempted but unsuccessful, and a bedside cricothyroidotomy was performed. Fresh frozen plasma (FFP) was also ordered, however administration was delayed.

The diagnosis of ACEI induced angioedema is made clinically. The pathophysiology suggests generation of bradykinin as the culprit due to the inhibition of various enzymes involved in its degradation. This is often treated with antihistamines, epinephrine and steroids which have shown efficacy mostly in allergic angioedema. Two agents, icantibant and FFP, used to treat hereditary angioedema, have also proven highly competent in treating severe ACEI induced angioedema.

Aside from discontinuing the ACEI and airway management, randomized studies showed icantibant, a selective antagonist of bradykinin B2 receptor, to provide significant relief of symptoms within 2 hours. Alternatively, FFP has also been proven efficacious in numerous case reports and is more universally available. It contains the enzyme ACE, which degrades high levels of bradykinin with symptom resolution almost immediately.

Though randomized clinical trials are needed, we intent to raise awareness of these treatments, as they appear to be superior in avoiding invasive measures and decreasing significant mortality.
Abstract Title:
A Pain In The Neck - A Peculiar Presentation Of Von Hippel Lindau Disease

Abstract Text:
Von Hippel Lindau Disease is an inherited, autosomal dominant syndrome manifested by a variety of benign and malignant tumors. The VHL gene abnormality is present in 1 in 36,000 individuals. We present a unique case of a male who presented with right handed numbness after a football injury.

A 22 yo male with no PMH came to the ED complaining of right hand numbness and tingling for the past 3-4 months s/p a football injury. Patient went to urgent care where he was referred to neurology and received an MRI without contrast, that showed multicystic intramedullary mass involving the medulla and cervical cord with mild chronic blood products and edema in the upper thoracic cord. The numbness sensation was constant, relieved/exacerbated by nothing, non-radiating and associated with no neurologic deficits. He complained of neck discomfort upon extension of the neck. VS include BP 108/69, HR 89 bpm, RR 17; temperature 37.3 C, and O2 saturation 100%. Physical exam was significant for horizontal optokinetic nystagmus and 1+ for R & L Bicep, R & L Tricep, R & L brachioradialis reflexes. Labs including CBC, CMP, and coagulation panel were normal. Patient was admitted to investigate further for neurologic disease and he was started on acetaminophen and dexamethasone. MRI brain and spine with contrast showed several cerebellar enhancing nodules, the larger one measuring 5mm in the right upper cerebellum with associated adjacent edema. Cystic dilatation/syrinx of the upper cervical cord with two enhancing nodules within the cord at C4-5 measuring 5.2 cm and C5-6 measuring 1 cm. Irregular cystic dilatation/syrinx in the mid to lower thoracic spine with a 1 cm nodule at T9. Neurology was consulted at this time and differential diagnosis included Von Hippel Lindau disease. Due to this differential diagnosis, ophthalmology was called and found a retinal anomaly oculus sinister, which can be a retinal capillary hemangioblastoma. Neurosurgery was called to take patient for surgery of C3,C4,C5,C6 bilateral laminectomies and resection of intramedullary spinal cord tumor at C5, resection of intramedullary cord tumor at C6, and aspiration of intraspinal cyst. Biopsy of upper and lower intramedullary lesions showed a neoplastic proliferation of large cells with bubbly, clear cytoplasm, pleomorphic nuclei, and negligible mitotic activity, associated with hemorrhage. By IHC, the neoplasm expressed inhibin, but was negative for PAX-8. These features were diagnostic of vHL-associated hemangioblastoma.

As internists, it’s important to evaluate even the smallest of complaints. Particularly with these patients, close annual screening and counseling is important for their future. Monitoring vHL patients is crucial with its increased risk of developing renal cell carcinoma, pheochromocytomas, and pancreatic cancer. Due to vHL’s aggressive nature, it’s imperative to diagnose early and start screening appropriately.
Abstract Title:
Daily Goals Sheet For Performance Improvement In Critical Care

Abstract Text:
INTRODUCTION
Effective communication among members of an interdisciplinary critical care team is essential to achieve optimal patient outcomes and reduce medical errors. Tools like a daily goals sheet improves communication and also enhances team dynamics, which may lead to improvements in performance measures such as length of stay and reduce medical errors. Our retrospective observation showed that implementation of a daily critical care goals sheet reduced the intensive care unit (ICU) length of stay and number of ventilator days.

METHODS
Performance measures for all patients seen at the Kendall Regional Medical Intensive Care Unit during a one-year period were analyzed. Data obtained was condensed and organized into four yearly quarters. The ICU goals sheet for multidisciplinary morning rounds was implemented during the third quarter of 2016 in the months of July, August and September. Performance measures such as actual length of stay (ALOS) and actual ventilator days (AVD) were obtained and compared to the outcomes of the patients admitted during the previous nine months who served as our control group. Comparisons for each performance measure were analyzed using unpaired T tests to determine statistical significance. The multidisciplinary team included the intensivist, ICU residents, nurses, respiratory therapist, physical therapist, nutritionist and case manager. The daily goals sheet included standard core measures like daily sedation interruption protocol, analgesia, spontaneous breathing trials, ventilator associated pneumonia prevention bundles, nutrition requirements, DVT prophylaxis, GI prophylaxis, removable catheters/lines to prevent catheter related infections, disposition status and code status. ICU residents were asked to complete the daily goals sheet and debrief the interdisciplinary team during rounds to ensure that the goals were adequately met.

RESULTS
Performance measures such as ALOS and AVD were analyzed for 1986 patients in our control group and compared to the 442 patients for which the goals sheet was applied. The average ICU ALOS for the control group was 6.5 (SD-2.2) and decreased by 15.2% to 5.5 (SD-1.8) after implementation of the goals sheet (p-value <0.0001 with 95% CI 0.78-1.22). ICU AVD for the control group was 7.2 (SD-2.8) and decreased by 36% to 4.6 (SD-1.8) after implementation of the goals sheet (p-value <0.0001 with 95% CI 2.33-2.87).

CONCLUSION
There was a significant improvement in performance measures such as ICU actual length of stay and actual ventilator days after application of the daily goals sheet during multidisciplinary rounds. The use of a daily goals sheet may improve patient safety leading to better outcomes.
Abstract Title:
Unusual Positive Outcomes Of Penetrating Pancreatic Squamous Cell Carcinoma

Abstract Text:
Introduction: Primary pancreatic squamous cell carcinoma (SCC) is a known rarity, but perhaps even more extraordinary is its favorable response to chemoradiation therapy. We report 2 cases of men diagnosed with primary pancreatic SCC who responded well to nonsurgical therapy. Interestingly, both patients suffered from tumor penetration into the upper gastrointestinal (GI) tract. One patient had duodenal ulceration, and the other had life-threatening GI hemorrhage.

Case Reports:
A 60-year-old man with diverticulosis and alcohol abuse presented with 3 months of epigastric pain radiating to his back and weight loss of 30 pounds. Upper endoscopy with ultrasound revealed a suspicious duodenal ulcer (Image A), and chronic pancreatitis sonographically. CA19-9 was high at 467. Primary pancreatic SCC was diagnosed with biopsies and imaging. Positron emission tomography/computed tomography (PET/CT) confirmed a 5cm pancreatic mass with metastatic lesions to the liver (Image B-F). He was deemed a nonsurgical candidate and commenced chemotherapy with gemcitabine/paclitaxel 3 weeks per month. Follow-up imaging at 2 years revealed no evidence of disease (Image G), and CA19-9 trended down to normal limits.

A 56-year-old man with a history of tobacco and alcohol abuse presented with severe GI bleeding and hypotension. Once stabilized with blood products and vasopressors for hemorrhagic shock, his left gastric artery was embolized to cease bleeding. An upper endoscopy confirmed a necrotic gastric mass with gastric perforation in the cardia and fundus (Image H). Biopsies revealed SCC of pancreatic origin, which paralleled CT evidence of a soft tissue mass involving the gastric cardia, pancreatic head and body (Image I). He completed chemotherapy with weekly carboplatin/paclitaxel and radiation for 3 months. At 5-month follow-up, CT revealed resolution of his gastric perforation and reduction of his pancreatic SCC (Image J-K).

Discussion: Primary pancreatic SCC is very rare, and case reports typically reveal poor outcomes despite treatment (1). A recent review of pancreatic SCC found only 214 cases identified from 2000-2012 (1). Despite their invasive disease, the impressive responses to nonsurgical therapy in these 2 men provide encouraging anecdotal support for treating primary pancreatic SCC.


Keywords: Squamous Cell Carcinoma, Pancreas, Chemotherapy
Abstract Title:
Spontaneous Coronary Artery Dissection Presenting As Fibromuscular Dysplasia

Abstract Text:
Introduction: Fibromuscular dysplasia (FMD) is a non-atherosclerotic and noninflammatory disease of small to medium size arteries. There is no known cause for this disease and typically affects young females. The most common presentation of FMD is related to diseases of the renal and intestinal arteries or the carotids. We present a case of a patient who was ultimately diagnosed with FMD who presented with spontaneous coronary artery dissection.

Case: A 57-year-old female with no medical history presented to the ED with a 7-hour history of substernal chest pain that radiated to her jaw bilaterally and both arms. Physical examination showed normal vital signs, heart regular rate and rhythm, normal S1 and S2, no S3 or S4, no murmurs, no rubs, and lungs clear to auscultation bilaterally. Her initial ECG was nonspecific and troponin I was undetectable. Given her initial negative troponin, she was further evaluated with an exercise stress echocardiogram. The stress ECG and echocardiogram were both negative for ischemia with a normal ejection fraction, however, her pain increased while exercising. A repeat troponin I was drawn and increased to 0.09ng/mL. The patient was started on a nitroglycerin drip and a cardiac catherization was performed which showed the distal left anterior descending artery taper excessively without change in appearance with intracoronary nitroglycerin. A CT coronary angiogram was then performed which showed findings consistent with spontaneous coronary artery dissection (SCAD). The treatment decision was to manage medically. Subsequently, a screening CT angiography of the neck, chest, and abdomen was done which showed fibromuscular dysplasia of the midportion of the dominant right renal artery and celiac artery.

Discussion: SCAD is a cause of acute coronary syndrome in young and healthy females and should be on the differential in this patient population. SCAD has been shown to be associated with the peripartum state, connective tissue disease, and severe stress and exercise. There have been a few small studies which found an association between SCAD and FMD as high as 85%, but no large scale study has been completed. Because of this association, clinicians should evaluate for FMD in a patient presenting with SCAD. Undiagnosed and untreated FMD may lead to complications like dissection, embolization of intravascular thrombi from dissection or aneurysms, resistant hypertension, renal insufficiency, limb ischemia and stroke. Management of SCAD is preferentially conservative, although it can include surgical or chemical revascularization. The dissected vessel heals in approximately 1 month, and there is no known effect on mortality or morbidity.

Conclusion: In a young and healthy female with ACS, SCAD should be on the differential. If SCAD is confirmed, further workup for FMD should be performed in order to prevent complications. SCAD and FMD may be managed medically or surgically.
Abstract Title:
Infectious Tenosynovitis With Methylobacterium Species Presenting As Advanced Carpal Tunnel Syndrome

Abstract Text:
Introduction
Here we present a rare case of infectious tenosynovitis.
Case Description
A 73 year old male presented to clinic for a 3-week history of uniform left hand swelling with decreased range of motion and increased warmth. He works in the medical field and has a past history of right sided carpal tunnel syndrome previously requiring surgical management. He is otherwise healthy. His current symptoms included left hand numbness, tingling and pain that wakes him up at night. He denied trauma or procedures to that hand. He tried anti-inflammatories but had not been on steroids. He also tried wearing a night splint, which did not relieve his symptoms.

On review of systems, he denied systemic signs of infection such as fever or chills, he had no rashes, no Raynaud’s, no significant fatigue. He denied muscle weakness or signs of myopathy but had decreasing grip in the left hand. Physical exam revealed diffuse left hand swelling with positive Phalen and Tinel’s test. A left hand MRI showed diffuse flexor tenosynovitis with synovitis of the carpus and metacarpophalangeal (MCP) joints. Initial CBC, chemistry profile and autoimmune antibodies were unrevealing. Erythrocyte sedimentation rate and C-reactive protein were mildly elevated.

This patient was presumptively diagnosed with advanced carpal tunnel syndrome with concern for underlying inflammatory arthritis. He was evaluated by Rheumatology. Given his asymmetric swelling and normal laboratories alternative etiologies were suspected. He subsequently underwent left wrist flexor tenosynovectomy with carpal tunnel release. Intraoperatively a large amount of brownish tenacious synovium was excised. Pathology revealed tenosynovial and fibrous tissue with mild chronic inflammation. Tissue cultures yielded growth of Methylobacterium species. Upon evaluation by Infectious Diseases, he was treated with one month of Bactrim with marked symptomatic relief. A repeat MRI of the left hand showed near-complete resolution of flexor tenosynovitis however new extensor tenosynovitis with persistent synovitis in the carpus and MCP joints was noted. A subsequent course of Ciprofloxacin yielded resolution of symptoms, decrease in inflammatory markers and complete resolution of flexor and extensor tenosynovitis on repeat MRI.

Discussion
Infectious Tenosynovitis describes infection of a tendon and its synovial sheath. It may present as an acute or subacute infection following direct trauma, contiguous spread or hematogenous spread. Methylobacterium species are rare causes of human infections most commonly associated with health care related infections and infections in immunocompromised host. Due to the lack of trauma, blood stream infection, immune compromise or other risk factors, it is suspected that this patient’s work environment may have provided exposure to this rare pathogen.
Abstract Title:
A Rare Case Of Rectal Bleeding

Abstract Text:
A 73 year old male presented with hematochezia, unintentional weight loss, and fatigue over several months. He underwent colonoscopy which revealed a three centimeter ulcerated, friable mass at a previous ileocolonic anastomosis, with immunohistochemical staining of colectomy specimens positive for CMV. Unique to this case is the fact that our patient lacked any apparent cause of immunodeficiency, including human immunodeficiency virus. Endoscopic evaluation of CMV colitis typically reveals shallow ulcerations, though solitary ulcers, pseudomembrane formation, and ischemic colitis have also been described. There have been 28 cases of CMV pseudotumor reported in the medical literature, with only seven of those patients qualifying as immunocompetent. Most cases occur in the colon, stomach, and esophagus. Pathogenesis of the disease remains unclear, and most patients are treated with medical therapy and/or surgery, although there have been recent case reports of disappearance of CMV pseudotumors treated with active surveillance alone. Our patient opted for surgical management coupled with IV ganciclovir, after which he suffered several surgical complications and deteriorated rapidly, which precluded our ability to continue treating and monitoring the lesion. This diagnosis should be included in the differential of gastrointestinal mass lesions, especially in the immunocompromised. It is important to highlight this case not only due to the rarity of the condition but also to consider re-evaluating treatment options, considering recent case reports of vanishing lesions treated with expectant management alone.
Abstract Title:
Chasing Zebras. A Case Of Hydralazine-Induced Lupus

Abstract Text:
Introduction: In the late 1940’s Doctor Theodore E. Woodward used to said to his medical interns: “When you hear hoofbeats, think horses not zebras”; in other words: focus first in common things when searching for clinical diagnosis.

Case Description: This is a case of a 64-year-old male presenting to Mount Sinai Medical Center Rheumatology Clinic for a second opinion of his joins pain. Patient medical history was relevant for obesity, obstructive sleep apnea, hypertension, diabetes, and dyslipidemia. Symptoms started 6 months prior to his visit when patient developed worsening polyarticular pain and progressive weakness, at that time he was diagnosed with rheumatoid arthritis, but after no improvement of his symptoms and unclear diagnosis, patient was hospitalized and underwent multiples studies, including serology and immunology, CT head, CT of the chest, abdomen and pelvis, as well as electrocardiogram, transthoracic echocardiogram and nuclear stress test after the development of chest pain. Patient was also evaluated by multiple specialties, including Rheumatology, Neurology, Nephrology, Infectious Diseases, Cardiology and Gastroenterology, without arriving to a definitive diagnosis and with no achievement of symptoms improvement.

Patient presented to our clinic for a second opinion; after obtaining medical history and review of medication list, patient was found to be on Hydralazine, and symptoms and physical exam findings matched the suspected diagnosis of Drug-Induced Lupus. Hydralazine was discontinued, and anti-histone antibodies test was ordered, that resulted positive. Fortunately patient had a subsequent complete resolution of his symptoms within few weeks after discontinuation of the drug.

Discussion: Hydralazine-Induced Lupus is uncommon in clinical practice given the infrequent use of this medication; additionally the clinical presentation that may simulate other conditions can distract the attention out of the proper diagnosis, more difficult without a high clinical suspicion or detailed clinical data gathering.

This case shows that a good medical history and physical examination can most of the time guide you to the correct diagnosis, and avoid extensive and expensive work up.
Abstract Title: Was It The Death Star?

Abstract Text:
A 42-year-old healthy male presented to the emergency department with three days of “squeezing”, constant, and intense non-radiating left flank pain. It relieved slightly with ibuprofen. Patient denied fever, chills or urinary disturbance. Pertinent facts on clinical history consisted of one episode of kidney stones 16 years ago. Tobacco use and family history of malignancy were negative. Vital signs were within normal ranges. Physical examination was unremarkable, including negative left costovertebral angle tenderness given previous administration of opiates in the emergency room. Laboratory work-up showed a CBC with leucocyte count of 12 with neutrophil predominance. Urinalysis was colorless, clear, and negative for erythrocytes, nitrites, and leucocyte esterase. CT abdomen and pelvis, although did not show any acute intra-abdominal or pelvic process, described a 3.2-centimeter mass extending to the pleura posteriorly of the left lower lobe suspicious for bronchogenic carcinoma. Patient was admitted. Top on the differential was malignancy, mainly bronchogenic carcinoma; secondly, adenocarcinoma due to negative tobacco history and location, among other types of lung cancers. Interventional radiology was consulted and a CT guided biopsy was done. Mass biopsy showed abundant intra-alveolar fibrin, numerous polymorphonuclear leucocytes, and rare fibroblasts consistent with acute bronchopneumonia with some early organization. Deeper examination had no evidence of malignancy. Thus, patient was diagnosed with round pneumonia and started on clindamycin for two weeks. When discharged, he was instructed to have a follow-up chest x-ray.

Round pneumonia, a rare form of pneumonia, was first described in 1954 by Wagner, and in 1973 Rose and Ward reviewed 21 cases in children with a mean age of five years. It represents one percent of coin lesions on chest x-rays, and it is often confused with a pulmonary mass, especially bronchogenic carcinoma. Most common locations are the posterior and inferior portions of the lungs. Streptococcus pneumonia has been the main pathogen reported, followed by Haemophilus influenzae, Staphylococcus aureus, and Mycoplasma. Regarding its particular morphology, some suggest that it is caused by centrifugal spread of an infection through the canals of Lambert and pores of Kohn; while others propose that it is due to limited spread because of underdeveloped and absent pores of Kohn and canals of Lambert, respectively, explaining why it is more common in children. Different antibiotics that have been successfully used are fluoroquinolones, tetracyclines, penicillins, and macrolides.

This case highlights two major realities. First, round pneumonia, mainly a disease of the young, has been increasingly reported among adults. This must lead to raise awareness of this entity among physicians treating adults. Second, it stresses the importance of broadening the differential diagnosis of a spherical finding on chest imaging beyond malignancy. Just because it looks deadly and round, it does not mean it is the Death Star.
Abstract Title:
Variation In Definitions Of Immobility In Pharmacological Thromboprophylaxis Clinical Trials In Medical Inpatients

Abstract Text:
Background: Although immobility is a common risk factor for venous thromboembolism (VTE) in medical inpatients, lack of a consistent definition of this term may limit accurate assessment of VTE risk for thromboprophylaxis.

Objective: To examine various definitions of immobility used in recent pharmacological thromboprophylaxis clinical trials.

Data Sources: PubMed and relevant references from articles/reviews from 2008 to 2016 were searched. Randomized controlled trials (RCTs) and other clinical studies involving adult hospitalized medical patients in acute care hospital settings that used the term immobility were selected. Two investigators independently abstracted data in duplicate and accuracy was checked by a third investigator.

Results: Twenty-one clinical studies were included. There was heterogeneity among individual VTE risk factors with respect to the definition of immobility in medical inpatients in these trials. Thirteen studies utilized objective criteria to define “immobility” including duration (12 studies) and distance or time walked (6 studies). In contrast, seven studies focused principally on subjective definitions (i.e., describing the nature of immobility rather than specifying its quantitative measurement). Three RCTs vaguely defined the level of patient’s immobility after hospitalization.

Conclusions: Despite the well-known effectiveness of pharmacological thromboprophylaxis for prevention of VTE in acutely ill medical patients, there is no current consensus on how to define immobility. The heterogeneous nature of definitions of immobility has led to uncertainty about the importance of immobility in VTE risk assessment models. Although clinical studies have incorporated varying definitions of immobility into their inclusion criteria, immobility as a specific VTE risk factor has not been clearly defined.
Abstract Title:
Trimethoprim Induced Severe Hyponatremia In Elderly Patient With Recurrent Utis

Abstract Text:
Symptomatic hyponatremia is a serious but rare complication associated with Trimethoprim use which may require hospitalization.
An 80 year old male with past medical history of hypertension, hyperlipidemia, hypothyroidism and benign prostatic hyperplasia presented to the clinic to establish care. He had been having severe headache for past 3 days, constant, 6/10 in intensity increasing to 8/10 at times, involving the whole head, associated with nausea and retching but did not have any episode of vomiting. Patient recently came from India and did not have a PCP in United States. He was prescribed Trimethoprim by his physician in India which he had been taking for past 1 week. Patient was not having any urinary symptoms except frequency during night consistent with his history of BPH. Patient did have a history of recurrent UTIs. Basal metabolic panel was ordered and patient was sent home on Zofran for symptomatic relief of nausea/retching. Patient’s daughter called the PCP in evening stating that patient had multiple episodes of non-bloody, non-bilious vomiting. She was advised to take the patient to the Emergency Department. In ER, patient was found to be hyponatremic with sodium level of 115 mmol/L which dropped to 112mmol/L after infusion of 2L NS. Patient was admitted on water restriction, TMP was discontinued and nephrology was consulted. TSH and random cortisol levels were normal. Non-contrast CT head was done which did not show any mass, mass effect, hydrocephalus, hemorrhage or acute abnormality. Nephrology agreed with the plan of water restriction, fluid resuscitation with D5W @ 50ml/hr and discontinuation of TMP. Over the course of next 3 days, patient’s sodium levels gradually increased to 124, his symptoms of headache, nausea and vomiting were completely resolved. Patient was discharged on the 4th day with a diagnosis of Hyponatremia induced by TMP and was advised to stop taking the antibiotic.
This case is a good example of Trimethoprim induced Hyponatremia after ruling out other potential causes. It also emphasizes on the importance of careful and thorough medication reconciliation while establishing care with a new patient. Although hyponatremia is a rare side effect of Trimethoprim, it has been reported few times in literature in the past. Timely recognition and intervention is important to prevent life-threatening complications of hyponatremia including seizures and coma.
Abstract Title:
Altered Mental Status As A Presenting Manifestation Of P-ANCA-Associated Vasculitis.

Abstract Text:
INTRODUCTION:
p-ANCA (perinuclear antineutrophil cytoplasmic antibodies) are a rare, systemic disorder of unclear etiology that affects small- and medium- sized blood vessels. These include granulomatosis with polyangiitis and microscopic polyangiitis. They most commonly involve lung and kidney, and diagnosis is often challenging for physicians. Involvement of the nervous system is seen in 10-45% of the cases. However, central nervous system involvement can be seen in only 6-8% of the patients with stroke being most prevalent manifestation. Here, we report a case with a rare presentation of p-ANCA related vasculitis.

CASE PRESENTATION:
A 68 year old female with history of seizures, rheumatoid arthritis was brought in due to alterations in mental status, cough and hemoptysis for 3 days.

On physical examination, patient was only oriented to place. She was hallucinating and had flight of ideas. Rest exam was normal including vitals except mild joint deformities. On investigations, we found hematuria, pyuria and anemia. Imaging studies of brain including CT, MRI and MRA head and neck were normal. CT chest showed possible infiltrate.

Patient was started on empiric antibiotics for possible pneumonia and urinary tract infections. Urine and blood cultures turned out negative and despite antibiotics patient’s mental status remained unchanged. Sputum cultures including acid-fast bacilli and urinary antigens were negative, this ruled out infections. p-ANCA was positive at 1:320. Anti- myeloperoxidase (MPO) antibodies were also positive with a value >100. Complement C3 and C4 as well as anti-glomerular basement membrane antibody were negative. Patient was started on high dose steroids and cyclophosphamide. Her electroencephalography was also negative for any seizure activities. Patient’s mental status improved drastically in few days after commencing the treatment for vasculitis. p-ANCA titer dropped from 1:320 to 1:80 and MPO dropped from >100 to 69. Patient was subsequently discharged on maintenance dose of cyclophosphamide and has been vasculitis symptoms free for past eight months.

DISCUSSION:
Neurological manifestations of p-ANCA associated vasculitis can be noticed in small subset of patients and can also be initial presentation. Involvement of both central and peripheral nervous system can be noted. Symptoms include headaches, seizures, focal neurologic manifestations, cranial and peripheral neuropathies and findings include hypertrophic pachymeningitis. They can be seen in either (proteinase-3) PR3-ANCA or MPO-ANCA positive patients. Although imaging is non-specific, however, MRI (diffusion weighted and FLAIR sequence) can demonstrate the leptomeningeal lesions. Biopsy is the gold standard diagnostic test and management involves corticosteroids and disease-modifying agents such as cyclophosphamide and methotrexate. Our patient presented with altered sensorium. Dramatic improvement in mental status after steroids treatment attributes to vasculitis as the cause. Thus, earlier recognition and initiation of corticosteroids is associated with better prognosis in these patients.

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Acquired diaphragmatic hernia is often associated with trauma. Spontaneous acquired diaphragmatic hernia without any apparent history of blunt or penetrating thoraco-abdominal trauma may occur and is a very rare condition. Diagnosis may be delayed by several months or even years.

CASE
A 83 year old Caucasian female presents to the emergency department complaining of chest pain. She has a known history of hypertension, hyperlipidemia, and pericardial effusion s/p pericardiocentesis done twice. She had non-exertional right sided chest pain of sudden onset, sharp, constant and 10/10 in intensity. It radiated to the right axilla and to the back. Chest pain was relieved with sublingual nitroglycerin in the emergency department. She has had intermittent episodes of chest tightness after eating for the past year, lasting about 5-10 minutes each with spontaneous resolution. Chest pain is not exacerbated by coughing, straining or heavy lifting. She denied shortness of breath, nausea, vomiting, diaphoresis, dysphagia, recent trauma to the abdomen or chest. Does not have a prior history of myocardial infarction, thoracic or abdominal surgery, hiatal hernia and has never had an endoscopy or colonoscopy. On physical examination loud heart sounds were auscultated over the right anterior chest wall with tracheal deviation to the right and right sided tracheal tug. Absence of breath sounds was noted on the left middle and lower lung zones instead bowel sounds were appreciated and there was dullness to percussion. Three sets of troponins were negative. Chest x-ray suggested bilateral interstitial markings suggesting congestive heart failure with cardiac shadow more prominent on the right. Further evaluation with CT of the chest revealed a large left diaphragmatic hernia estimated to be 18 cm in length with herniation of the stomach along with small and large bowel into the left thorax and posterior mediastinum with apparent right mediastinal shift. The patient was asymptomatic and hemodynamically stable throughout the hospital stay. She was managed conservatively and evaluated by cardiology and cardiothoracic surgery. Patient was then discharged in stable condition to follow up for outpatient laparoscopic diaphragmatic hernia repair.

DISCUSSION
The management of diaphragmatic hernia is surgical and consists of reducing the viscera and sealing the diaphragmatic defect either by laparoscopic or open thoracotomy. Our case addresses the development of a large spontaneously acquired diaphragmatic hernia with no apparent cause, which was asymptomatic for a while. It is important to recognize this rare presentation and the associated risk of complications like volvulus formation, incarceration, strangulation, hemorrhage and perforation of a hollow viscus.
Abstract Title:
Multiple Embolic Strokes Arising From Ulcerated Brachiocephalic Artery Plaque

Abstract Text:
Introduction: In stroke patients it is often not possible to establish the etiology of stroke after ruling out other common etiologies. In recent years data have been emerging on the association of aortic arch atheroma and cerebral infarction, particularly when no obvious etiology could be found.
Case Description: 77 year old Caucasian male with history of Coronary artery disease s/p multiple stents, multiple TIAs (last one 2 weeks ago); COPD home O2 dependent; HTN and HLD was admitted because of nausea and vomiting for 2 days. He denied any other GI symptom but following morning reported of having 1 episode of left hand numbness with weakness, which resolved spontaneously. He also did report of having intermittent frontal headaches and vision problems on the left side. NIHSS score was 2. On physical examination he had left homonymous hemianopia without nystagmus, 3+reflexes on the left side with upgoing plantars. STAT MRI brain was done which showed acute/subacute multifocal right frontal, temporal, parietal and cerebellar ischemic infarcts. His echocardiogram showed EF 58% with severe pulmonary HTN and moderate TR. Lipids were normal. The CT angiogram neck showed atheromatous changes with <39% bilateral ICA stenosis and dilation of the proximal right subclavian artery. CT angiogram of the chest revealed fusiform aneurysm of the proximal most right subclavian/brachiocephalic artery measuring 2.8cm with ulcerated plaque causing severe 70% luminal stenosis. Aortic arch angiogram was recommended by the cardiologist, which revealed significantly dilated brachiocephalic artery with severe lesion proximally with large ulcerated plaque right after the origin form the aortic arch. Apixaban was added to the patient’s treatment. Based on the findings the case was discussed with the vascular surgery and recommendations were to place a covered stent in that area for decreasing the future risk of emboli stroke form the ulcerated plaque and continuing with aspirin, clopidogrel, apixaban and statin therapy. The patient underwent stent placement successfully and post-intervention was seen in outpatient clinic when he reported of having significant improvement in his left sided vision.
Discussion: Aortic arch atheroma as an independent risk factor for stroke and arterial embolism. Higher risk of stroke when atheroma are located proximal to the ostium of the left subclavian artery or plaque is 4 mm thick. Our case is unique as it involved severe ulcerative atherosclerotic disease proximal distal to aortic arch involving the brachiocephalic trunk. There is still no firm evidence-based algorithm of treatment for patients with this disorder. In these cases, aspirin might not prevent adequately new arterial ischemic events especially stroke. Although a retrospective study indicates a likely benefit from statin drugs, the results of an ongoing randomized trial of Coumadin versus antiplatelet therapy are still pending.
Abstract Title:
Case Of An Egg Donation Gone Wrong.

Abstract Text:
INTRODUCTION
Ovarian hyper stimulation syndrome (OHSS) is a rare, iatrogenic complication of ovarian stimulation or ovulation induction. Gonadotropin treatment leads to exuberant ovarian response and numerous antral follicles develop. Vascular endothelial growth factor (VEGF) produced in follicles escapes into circulation and leads to acute fluid shift into the extra vascular space. Complications of OHSS range from benign symptoms as nausea and vomiting to more serious complications as hydrothorax, ascites and hyperviscocity.

CASE
We report a case of 23 year old G0P0 woman who presented to our facility with abdominal pain and bloating for a week following egg retrieval at an out of state egg donation facility. She was on gonadotropins for one menstrual cycle and received HCG one week prior to egg retrieval. US pelvis and CT abdomen showed large volume ascites with multiple large cysts in both ovaries and small pleural effusions. 2D Echo revealed trace pericardial effusion. Intra-abdominal pressure (IAP) at admission was obtained and showed elevated intra-abdominal pressure (IAP). She was admitted to ICU, where she monitored overnight for increase in IAP and development of abdominal compartment syndrome. She was monitored for hepatic and renal function. She underwent therapeutic paracentesis following which her symptoms improved.

Discussion
Although OHSS is predictable complication of ovulation induction, this case demonstrates the potential for development of severe complications not pertaining to the procedure itself, but due to secondary abdominal compartment syndrome.
Abstract Title:
The Art Of Managing Controlled Chaos: On The Receiving End Of A No-Notice Forced Evacuation

Abstract Text:
Introduction:
On August 31st, 2016 a regional level II trauma center had a fire that resulted in an emergent evacuation of the entire facility. Oak Hill Hospital being the closest hospital to this facility received all their critical (ICU, CCU and trauma) patients. Having an influx of fifty one critical patients in less than three hours, with only six critical care beds available, was a challenge.

Case Description:
Regional Medical Center Bayonet Point in Hudson, Florida experienced a lightning strike and a power surge that lead to a fire on the roof. Main electrical lines were affected and switching on the backup generator at that point was not an option. All the electrical equipment was now on running on battery backup and emergent evacuation of the entire facility was initiated. The most critical patients were transferred to the closest hospital.

Oak Hill hospital being the closest hospital received fifty one critical care patients. An incident command center was setup at Oakhill. With only six critical beds available, a list of incoming patients with their level of acuity was obtained. Patient intake was established closest to the ICU and away from the ER to avoid hindering the ER workflow.

Extra intensivists, internal medicine residents’ emergency team and internal medicine faculty were called in. A triage point was established where a senior resident triaged the incoming patients and determined the level of acuity warranted. The triage process also involved bed management and patient assignment for admission to the emergency admitting teams which consisted of residents, hospitalists and intensivists.

An emergency credentialing process was initiated giving the trauma and neuro surgeons privileges to Oakhill Hospital. PACU and cath lab holding were used as overflow ICU beds. Every patient that was being transferred was evaluated, examined, appropriate medications profiled and continuity of care was established. This was all achieved within ten hours after the emergent evacuation was started.

Discussion:
Emergent evacuations have been carried out in the past secondary to natural disasters. In these cases there is pre-event preparation and various policies and procedures are in place to support this effort. Federal and state governing bodies are prepared and have a contingency plan in place with the appropriate resources mobilized to facilitate this.

However in this case no such preparation was in place nor are there policies or contingency plans at an institutional level to accommodate an influx of critical care patients.
Endocarditis is characterized by the presence of vegetations or destructive lesions on cardiac valves caused by introduction of bacteria into the bloodstream. Papillary muscle rupture is usually caused by myocardial infarction that leads to a flail segment of the mitral valve in which the severed papillary muscle can frequently be seen moving freely in the left ventricular and atrial cavities. The etiology of both disease processes are very different but occasionally cases may create a diagnostic conundrum.

A 34 year old male with history of intramuscular testosterone replacement therapy with recent cellulitis at the injection site, presented to the emergency department with a two week history of substernal chest pain. The pain was accompanied with hemoptysis and progressive dyspnea. Upon presentation, patient appeared septic with tachypnea, hypoxemia, labored breathing, diffusely diminished breath sounds, and a cough productive of blood tinged sputum. ABG showed acute hypoxic respiratory failure and CTA of chest showed significant bilateral infiltrates. He was subsequently admitted to the ICU with a diagnosis of sepsis secondary to multi-lobar pneumonia. Broad-spectrum antibiotics were started and the patient was intubated and placed on mechanical ventilation due to progressive respiratory failure.

The following day, his cardiac enzymes were found to be significantly elevated and trending up. An echocardiogram demonstrated mitral regurgitation, flail posterior leaflet of the mitral valve and a mobile vegetation on the atrial side of the leaflet. Blood cultures continued to show no growth, however there was high suspicion for endocarditis given his history of intramuscular testosterone use and recent cellulitis before admission. He underwent cardiac catheterization, which revealed high-grade stenosis of the right coronary artery (RCA), which combined with the rise and fall of his troponins lead to a diagnosis of NSTEMI. Cardiothoracic surgery intervened and found the posterior papillary muscle of the mitral valve to be necrotic with rupture and no evidence of endocarditis. The valve was replaced and the RCA bypassed. Following surgery, the patient had an uneventful postoperative course and recovered back to his baseline functional status.

This case demonstrates the successful treatment of a young man with severe mitral regurgitation and rupture of the posterior papillary muscle secondary to NSTEMI. Echocardiography and clinical presentation prior to surgery raised the suspicion of endocarditis with systemic emboli leading to hemodynamic collapse. However, papillary muscles are rarely involved with endocarditis. Acute coronary syndrome is unlikely at such a young age with no risk factors. Despite having a strong suspicion for endocarditis given the clinical presentation, it was important to look for other causes of mitral regurgitation and hemodynamic instability.
Abstract Title: Acute Ischemic Stroke- Delayed CT Presentation With Negative MRI.

Abstract Text:
In patients who present with abrupt neurologic changes, acute stroke should always be ruled out. At times symptoms of stroke may not be straightforward and we rely on diagnostic tools such as the NIH Stroke Scale as well as imaging modalities including CT and MR imaging to assist with diagnosis. Although it has been noted that MRI (DWI) is highly sensitive for the diagnosis of acute ischemic stroke, there is evidence that it may fail to identify ischemic stroke lesions more frequently than expected within the first 24 hours after initial symptoms. We are presenting a case of an 83 year-old female who suffered an acute ischemic stroke with negative initial non-contrast CT scan and subsequent negative MRI within 24 hours of symptom onset. The patient who had history of A-Fib suffered a fall provoking a Sub-Dural Hemorrhage and was discontinued off of her anti-coagulation. She was instructed to continue it after 4 weeks however failed to do so. On the day of current admission, the patient’s daughter went to check on her after hearing a noise coming from her room. She realized that her mother was extremely confused and brought her to the hospital. Upon further examination it was noted that the patient exhibited what appeared to be a transcortical sensory aphasia and was admitted for further workup. Initial non-contrast CT scan of the brain did not reveal any evidence of an acute infarct. Follow up MRI was performed that also was negative for any acute ischemic changes. Neurology was consulted and suggested evaluating the patient with an EEG which revealed a possible right temporal seizure focus. Patient was started on phenytoin empirically in the absence of a competing diagnosis. Symptoms persisted and CT scan was repeated the following day revealing a large acute infarct in the left posterior cerebral artery distribution. Based on our case presentation and our analysis and review of current evidence, we have concluded that the diagnosis of acute ischemic stroke remains primarily a clinical diagnosis. Several reports have suggested that false negative MRI results occur more frequently depending on the location of the stroke and the MR latency. It is important to confirm the diagnosis of ischemic stroke if unclear even after the thrombolytic window has passed as these findings may still affect the management of the patient.
Abstract Title: A Rare Presentation Of Acute Myeloid Leukemia With Rhabdomyolysis

Abstract Text:
Introduction: Acute myeloid leukemia (AML) is characterized by uncontrolled proliferation of immature myeloid cells, often called blasts, which replace normal production of bone marrow including platelet, red and white blood cells. Due to bone marrow suppression, patients may present with anemia, infection, and bleeding. Patients may also present with high peripheral blasts, symptoms and complications of blasts crisis. Acute leukemia is fatal if untreated, most people die within several months after diagnosis if not treated. Rhabdomyolysis is caused by alcohol abuse, muscle overexertion, crush injury, infections, electrolytes abnormalities and the use of certain medications or illicit drugs. We report a case of massive rhabdomyolysis as initial presentation of AML.

Case Presentation: A 56-year-old man with history of metastatic testicular cancer treated with radiation and chemotherapy twenty years prior who presented with weakness and falls. He was found to have rhabdomyolysis and acute renal failure. His creatine kinase (CK) was 158,940 U/L and serum creatinine was 4.7 mg/dl. His vital signs were temperature 38.5°C, blood pressure 139/71 mmHg, heart rate 84 beats/min, and respiratory rate 18/min. Physical examination revealed diffuse erythematosus papules. He was treated with aggressive intravenous fluid and his rhabdomyolysis improved with CK 3334 U/L. He was noted to have pancytopenia with WBC 2.1/µL, Hb 10.2 g/dL, and platelet count 70/µL; which progressively worsened. Bone marrow biopsy showed AML with 40% blast. The patient had dyspnea a week later, his chest x-ray (CXR) showed diffuse bilateral infiltrates. He was treated with IV levofloxacin for possible pneumonia. The patient developed worsening shortness of breath and delirium, and then was placed on broad spectrum antibiotics. CT chest showed bilateral airspace disease. Brain natriuretic peptide (BNP) was 12,400. Echocardiogram showed ejection fraction of 50%. MRI brain and CSF analysis were unremarkable. Repeat CXR showed bilateral infiltrates characteristic of pneumonia versus acute respiratory distress syndrome. The patient was started on induction chemotherapy with ara-C and daunorubicin for his AML. His encephalopathy and shortness of breath then improved. His CXR showed improvement of infiltrates. His rhabdomyolysis completely resolved with CK 50 U/L. Day 15 bone marrow biopsy showed response with 25% residual blast cells. He was given a second induction chemotherapy with ara-C and daunorubicin. However, he did not attain complete response as follow-up bone marrow biopsy showed 50% blast cells. The patient’s clinical condition then deteriorated. He declined further treatments and was admitted to hospice.

Discussion: Our case is the first to show an association of rhabdomyolysis with AML. Although rhabdomyolysis is likely a very rare clinical presentation of AML, our case raises awareness for workup for AML in patients who present with rhabdomyolysis and other suspicious findings. Both conditions are medical emergencies and require immediate treatment.
Abstract Title: Amphetamine Use And Bilateral Hippocampal Stroke

Abstract Text:
INTRODUCTION: Amphetamine is a widely misused psychostimulant drug. It is associated with a wide range of neurological complications including seizures, hypertension, myocardial infarction, psychosis, hallucinations and ischemic stroke.

CASE REPORT: A 27 year old Caucasian man with a history of chronic hepatitis C virus infection and intravenous drug abuse (IVDA) presented to the emergency department (ED) with confusion and agitation. Because of the history of IVDA, naloxone was administered on arrival with improvement in symptoms. The patient did not know why he was in the hospital and couldn't describe his occupation. Review of systems was unremarkable. On examination, his vitals were: blood pressure of 110/60 mm Hg, heart rate 88 beats/minute, respiratory rate 22 per minute and O2 sat of 96%. The patient was alert, awake, and oriented to time, place and person. Cardiovascular and respiratory examination were unremarkable. Neurological exam: Motor strength 5/5 in all extremities, sensation to light touch and temperature intact with 2+ deep tendon reflexes and no other obvious focal neurological deficits. Laboratory investigation showed a WBC of 24,000 cells per microliter, creatinine of 1.58 mg/dl, positive urine drug screen for opioids and methamphetamines. Random blood alcohol level was 86 mg/dL. CT of the brain showed mild generalized deep white matter cerebral edema. An MRI of the brain was consistent with bilateral hippocampal strokes. CT angiogram of the head and neck showed no evidence of stenosis, aneurysm, or arteriovenous malformation. Electroencephalogram showed no epileptiform activity. The patient was discharged with follow up for a neurophysiologist for his cognitive dysfunction.

DISCUSSION: Amphetamine is a widely misused psychostimulant drug. Amphetamine exerts its sympathomimetic effect by causing vasoconstriction that leads to hypertension, coronary vasospasm and central nervous system ischemia (as seen in this patient), infarction and hemorrhage. Hippocampal strokes are caused by occlusion of hippocampal arteries which arise from the posterior cerebral artery, the anterior choroidal artery and the splenial artery. Hippocampal strokes mainly present with acute memory impairment, specifically persistent antegrade amnesia. It also causes cognitive deterioration such as difficulty in performance of complex tasks, loss of higher reasoning, learning disabilities, concentration difficulties, decreased intelligence and judgment. Typically hippocampal injury can affect autobiographical memory, explicit memory and semantic memory: however, implicit memory which is the ability to learn new skills is spared. Memory loss in a patient with amphetamine intoxication should raise the suspicion of a hippocampal stroke. MRI brain should be done as early as possible in patients with acute memory impairment to confirm or exclude a stroke particularly in the hippocampal region.
Abstract Title:
"To Resuscitate Or Not That Is A Question" Advance Directive (AD) QI Project At Palms Medical Group Clinic

Abstract Text:
Introduction:
The primary care office visit is a useful time for advance care discussions. Since the inception of the residency at IM and FM clinics of Palms Medical Group (PMG), Orange Park, advanced directives (AD) planning at the outpatient clinic was not a routine part of the practice. Our aim was to improve the discussion of AD documentation by the providers at PMG Orange Park from the current rate of 0% to 20% in 3 months and 30% in 6 months.

Methods:
This is a prospective study designed to implement AD documentation at the PMG clinics (IM & FM) at OP from 4/11/16 to 7/10/2016. We enrolled 919 patients over a 3 months period. We excluded patients who presented to the clinic but did not see a physician and patients < 18 years of age. Front desk staff provided the Florida AD packet to patients with instructions to complete the form and submit it to Provider. Providers counseled all patients they encountered regarding their AD. Patient signed the AD followed by the provider’s signature. Completed forms were uploaded into the EMR. If a patient was not interested in completing the AD form, then patient “opted-out” and provider documented in the EMR. If the patient required more time to complete form, they were able to take it home. Provider documented in EMR the status of form and discussed with the patient during the subsequent encounter.

Result:
The baseline demographics included the median age of 42 years, median BMI of 35, females 62.2%, and Caucasian 64% in our study population. A number of chronic diagnosis among patients approached for AD were median (IQR) of 3 (1-5), and a number of medications median (IQR) of 3 (2-6). We reached out the goal of 6 months in 3 months as out of 919 seen during this time frame, 306 patients (33.3%) were approached for the AD. Amongst these, 33 (10.8%) patients already had AD, 15(5%) patients completed the AD form, 117 (38.2%) patients refused to fill the AD form and 141(46%) patients took the AD form home. IM residents approached 91/183 (49.7%) patients, FM residents 43/346 (12.4%) patients, IM attendings 104/139 (74.8%) patients, and FM attendings 68/251 (27%) patients for AD.

Conclusion:
Although 3 and 6-month targets for AD discussion were achieved, only 5% completed the AD form. The target was achieved by incorporating a workflow system in the clinic and regular reminders to the providers every month. Significant barriers to the implementations of AD exist in the outpatient setting including lack of patient and family knowledge, lack of organization support structure, physician communication, and time constraint. Further studies addressing workflow processes are needed to improve implementation and documentation of AD in outpatient settings.
Abstract Title:
Recurrence Of GIST While On Adjuvant Imitanib For More Than 3 Years

Abstract Text:
Gastrointestinal stromal tumors (GISTs) are the most common mesenchymal neoplasms of the GI tract. Standard of care for patients with a primary resectable GIST is surgery, aiming for a complete resection with negative microscopic margins. Adjuvant treatment with a TKI (imatinib 400 mg daily) for a minimum of three years in patients who have a completely resected primary high-risk GIST.

70 YO Caucasian male presented in March, 2013 with progressively worsening abdominal pain for one year. A CT scan of abdomen showed a 13 cm x 8 cm pelvic mass with 3.5 cm suspected abscess within it. Laparotomy was performed and a pelvic mass attached to small bowel was removed. Pathology report was GIST of jejunum with negative margins. Tumor cells were positive for C-KIT mutations. Based on tumor size, mitotic features and location of tumor it was high risk. Imatinib 400 mg PO daily was started as adjuvant therapy. In July, 2016 patient was seen in PCP office for acute anemia. A CT scan of abdomen showed a large pelvic mass. Patient was referred to IR for possible needle biopsy. However IR could not ensure if the lesion was old hematoma or recurrent GIST. Consequently, no biopsy could be performed. A repeat CT scan in 6 weeks showed enlarging mass. Patient was scheduled for MRI of abdomen but due to worsening abdominal pain patient presented to ED. A CT scan showed 15 cm x 17 cm heterogeneous mixed cystic mass in lower abdomen and pelvis. Laparotomy was performed and a large pelvic mass discovered. Partial resection was performed and sent to pathology lab. Pathology report came back again as recurrent high risk GIST with C-KIT mutation. Patient was started on higher dose of Imatinib (400mg BID).

The patient had recurrent GIST while on adjuvant therapy with Imatinib 400 mg daily. There were no significant periods of time during the 3 years between two presentations when the therapy was stopped. Most of the trials on adjuvant Imatinib are for three year period. This case signifies the importance of longer period trials and recommendations in future.
Abstract Title:
Bronchial Diverticula: An Unusual Case Of Chronic Hemoptysis In A 50 Year Old Nonsmoking Male.

Abstract Text:
Case: A 50 year old African American male with hypertension, diabetes mellitus II, and heart failure, presented to the ED with complaints of a chronic cough productive of bright red sputum. This had been intermittently present for approximately 9 months and was associated with dyspnea, without fevers, chills or night sweats. He denied any prior tobacco use. He was seen previously in the same ED two weeks prior where he was treated for suspected left lower lung pneumonia and given Azithromycin without improvement. On admission his chest x-ray showed an unchanged minor left lower lobe infiltrate. A CT angiogram of the chest confirmed a left lower lobe consolidation without any other abnormalities. Broad spectrum antibiotics were initiated for suspected community acquired pneumonia; three negative Acid Fast Bacilli sputum and negative QuantifFERON Gold ruled out Tuberculosis. Despite antibiotics, he continued to have bright red hemoptysis daily. Echocardiogram was done to rule out valvular abnormality or pulmonary hypertension. Bronchoscopy performed on admit day six showed diffuse bronchial diverticula. A slow bleed within one of the diverticulum at the level of the left lower lobe, without a visible blood vessel was noted, which was injected with epinephrine with successful intraoperative hemostasis. Post-operatively, patient had minimal hemoptysis with some blood streaked sputum. Repeat bronchoscopy six days later was done to assess resolution, where again bright red blood was seen in the orifice of the same diverticulum. This time, Cryoprecipitate and thrombin were used to create hemostasis. Following the procedure, the patient was sent home, as no more episodes of hemoptysis occurred.

Bronchial Diverticula are submicroscopic depressions of the mucosal surface within the bronchial wall, and although etiology uncertain, are thought to be associated with increases in intrabronchial pressure, e.g. chronic cough. While the presence of bronchial diverticula is not an uncommon finding, the incidence of a bronchial diverticula causing a chronic hemoptysis is not well described in the current literature. This case presents a chronic slow hemoptysis as opposed to hemorrhage in a patient with bronchial diverticula. Cases such as these demand an astute physician, especially when the patient has no known risk factors such as COPD or chronic tobacco abuse, combined with negative CT scan findings for diverticulum. Furthermore, Bronchial diverticulum act as areas for increased infection causing local pneumonia which can further lead the clinician astray.
Abstract Title:
An Unusual Case Of HSV-2 Encephalitis In A Patient With Gliosarcoma

Abstract Text:
Meningitis and encephalitis often present similarly with overlapping symptoms of nausea, headache, and fever. However, the diagnosis of encephalitis requires altered mental status or new neurologic findings and it is important to distinguish between these two as their management and etiology can differ. Certain comorbidities such as brain malignancy and immunosuppression have also been reported to confound the diagnosis. Herpes simplex encephalitis (HSE) is more commonly associated with HSV-1 while aseptic meningitis (Mollaret's syndrome) has been associated with HSV-2. Our patient is a 64 year-old Caucasian female with multifocal gliosarcoma post resection, undergoing whole-brain radiation therapy (WBRT) and Temozolomide chemotherapy, who presented with headache, neck stiffness, and fever. Other symptoms were left sided weakness (since craniotomy) and dysuria. Medications included Keppra and Dexamethasone. On admission she was alert, oriented, and afebrile with stable vital signs. Physical exam showed well healing craniotomy incision, neck supple, 4/5 strength in left upper and lower extremities, negative Kernig and Brudzinski signs. Labs showed thrombocytopenia platelets:39,000 and neutropenia secondary to chemotherapy. Infectious disease was consulted. Other causes of neutropenic fever were ruled out. LP was not done initially because of thrombocytopenia. CT and MRI brain showed no edema, no temporal lobe involvement; postoperative changes evident but stable. Empiric IV Vancomycin and Cefepime were started for suspected bacterial meningitis. On day five she acutely deteriorated and became obtunded. Neurology was consulted, EEG showed semi-rhythmic sharp and triphasic waves likely representing new ictal pattern which improved after Ativan and increase in Keppra. Platelets eventually stabilized after transfusion and LP was performed which showed lymphocytic pleocytosis: WBC:73, Lymphs:95%, glucose:50, protein:164. At this point the patient was started on IV Acyclovir. CSF fluid analysis was negative for bacterial, cryptococcal, TB, and fungal organisms. HSV-2 DNA was isolated from CSF. The patient's mentation eventually improved and she returned to baseline. On further questioning she admitted to genital herpes more than twenty years prior. These findings and her clinical presentation led to the eventual diagnosis of encephalitis in our case. She was discharged with Valacyclovir to complete twenty-one days of therapy. The HSV did not recur but the patient transitioned to hospice care for advanced gliosarcoma. This atypical presentation of HSV-2 encephalitis led to delay in diagnosis and treatment in our case. The occurrence of HSE in glioma and gliosarcoma patients is rare but outcomes can be fatal with mortality up to 70%, despite this our patient did well. Immunosuppression, Temozolomide exposure, and WBRT have all been associated with HSV reactivation; we describe one case in which all three factors were present. The role of antiviral prophylaxis is proven effective but is currently not recommended. Further studies may be warranted to assess the role of antiviral prophylaxis in these patients.
Abstract Title: A Work Of Heart

Abstract Text: Endocarditis is a common diagnosis in an inpatient setting. It is a pathology that has a wide range of etiologies. Orlando Regional Medical Center is located in downtown Orlando where IV drug abuse is a common problem encountered. A young patient with new signs of endocarditis would warrant the bias of presuming the etiology is intravenous drug abuse. This case presents an etiology and historical course not typically encountered in any medical community.

The patient is a 28-year-old previously healthy white male who presented to the emergency room with sharp mid-sternal chest pain for three weeks. He also reported night sweats, fatigue, and an unintentional thirty pound weight loss over the course of two months. On physical exam he was found to have a new, harsh, III/VI diastolic decrescendo murmur as well as a mid-systolic ejection click. De Musset sign, Mullers sign, and Quinckies pulse were all absent. EKG and troponins showed no signs of ischemia or pericarditis. Initial laboratory testing revealed elevated ESR and CRP, normocytic anemia, and Staphylococcus Haemolyticus bacteremia. The patient was treated initially with broad spectrum IV antibiotics which were de-escalated to IV Cefazolin. Cardiology and Cardiothoracic surgery were consulted. A trans-esophageal echocardiogram (TEE) showed a bicuspid aortic valve with a vegetative mass measuring 1.7cm x 1cm at the non-coronary leaflet. The patient underwent repeat TEE and median sternotomy with cardiothoracic surgery. He was found to have extensive infective endocarditis involving the aortic valve with severe aortic regurgitation and ‘kissing lesions effect’ also involving the anterior leaflet of the mitral valve. He underwent radical reconstruction of the anterior leaflet of the mitral valve, surgical ligation of left atrial appendage, and aortic valve replacement with bio-prosthetic valve. His symptoms improved significantly and he was discharged to complete a course of six weeks of IV Cefazolin as outpatient.

As mentioned earlier there are many causes of endocarditis, the medical team continued to be perplexed about the cause of this case. The patient vehemently denied intravenous drug abuse, had a negative urine drug screen, and did not have a recent dental procedure. When asked about his hobbies, he stated he was a painter. He did not paint with oil, or watercolors; the patient painted with his own blood. He stated that he would use needles to draw his own blood for his paintings.

As medical students and residents the importance of taking a good history is drilled into our minds. It is easy to be lulled into the security of the patterns we see in the inpatient setting, especially in an urban medical environment. History taking is as important as it ever was, and will continue to illuminate strange etiologies of common diagnoses.
Abstract Title: Bilateral Pulmonary Metastasis From A Malignant Meningioma: A Rare Case Study

Abstract Text:
INTRODUCTION Meningiomas are the most common primary brain tumors. They arise from the meninges including pia, arachnoid, and dura mater. While they account for 36% of all CNS tumors, they are mostly benign. The WHO Classification divides meningiomas into three grades of meningiomas: benign (Grade I) making up 90% of all meningiomas, atypical (Grade II) making up 7% of meningiomas, and Anaplastic or Malignant (Grade III) making up 2% of meningiomas. We present a case of an exceedingly rare grade III metastatic meningioma with extracranial metastasis. There are only a few cases in the literature with an overall estimated incidence less than 0.1%.

CASE PRESENTATION Patient is a 54-year-old male with a past medical history of recurrent meningiomas, after multiple craniotomies and radiation therapy sessions he was left with left sided hemiparesis and seizure disorder. Over the course of one month and prior to admission, the patient had progressive functional decline eventually being wheelchair bound. The morning before his admission the patient appeared confused as per family; he was brought to the ED where a radiograph of the head revealed an acute intracranial hemorrhage in the area of a previously resected meningioma. Due to worsening mentation, the patient was intubated and sedated. The decision was made to continue with medical management only as he was not a candidate for surgery. He was eventually stabilized, extubated and discharged. After three weeks of rehab he became acutely short of breath and tachycardic. Work up was negative for PE, however imaging revealed numerous bilateral pulmonary nodular lesions suspicious for malignancy and metastatic disease. Biopsy of the lesions revealed the neuroendocrine markers synaptophysin and chromogranin. These markers were consistent with the diagnosis of metastatic disease originating from a “brain source.”

DISCUSSION The blood brain barrier (BBB) generally keeps meningiomas confined to the brain, however, anaplastic meningioma have the potential to break through the BBB and metastasis to other parts of the body. The overall survival is on average three years for anaplastic meningiomas. Treatment is targeted at complete resection including underlying bone and dural attachment. It is then followed by radiation treatment in order to reduce rate of recurrence. Our patient had an aggressive form not amenable to treatment. Complications often include focal seizures, spastic leg weakness, incontinence, diplopia, increased intracranial pressure, motor/sensory neuropathy, and aphasia. Additionally, once metastasis occurs the complications can be severe and include a broad spectrum of disease specific to the organ systems involved. As in our patient with pulmonary lesions, late stage complications may include recurrent pneumonias, hemorrhage, and permanent morphologic and functional changes to the lung and supporting tissues that can further perpetuate and predispose the patient to even more severe complications with each cycle of disease.
Abstract Title:
Brand Versus Generic Warfarin: A Case Report

Abstract Text:
The increasing use of generic drugs is a phenomenon driven in part by the affordability these “copy-cat” medicines provide. The issue of bioequivalence of brand versus generic medicine becomes especially important when discussing medicines with a narrow therapeutic index, such as warfarin. Clinical studies that compare brand name and generic warfarin are scarce in the literature and provide conflicting results. There are to date no studies that investigate such differences in patients with antiphospholipid antibody syndrome.

Our case involves a 46-year-old male with a past medical history of primary antiphospholipid antibody syndrome (PAPS), nine past episodes of pulmonary embolisms (PE) and five past episodes of deep vein thrombosis (DVT). The patient was being treated at a free clinic with brand name Coumadin. He was noted to have multiple episodes of therapy non-compliance and hospital admissions. He presented to our hospital with atypical, centrally localized chest pain and no other associated symptoms. Upon presentation, he admitted to skipping several doses of his Coumadin due to increased demands in work schedule. International normalized ratio (INR) measurement was obtained in the emergency department and was found to be 1.07 at the time of presentation.

Upon admission, our patient was started on generic form Warfarin for a period of 27 days. His INR did not increase to therapeutic range until being switched to brand Coumadin, 28 days later. We present a novel case of increased sensitivity to brand name Coumadin over generic warfarin, as evidenced by INR measurements documented over a 62 day period in-patient hospital stay, in a patient with PAPS.
Abstract Title:
When The Wrong Clues Lead To The Right Diagnosis

Abstract Text:
While not fully understood, paraneoplastic syndromes (PNS) can signify a body’s immune response to a neoplasm. Varying in its manifestations, it often confuses and misleads clinicians. We are presenting a case of a young lady who complained of a seizure, confusion and lethargy that was subsequently diagnosed with breast cancer thanks to PNS.

A 42 year old AA female presented to our institution for an unwitnessed seizure 3 days prior, bilateral leg weakness, diplopia, and headache. She reported a PMH of Cerebrovascular Accident (CVA), Patent Foramen Ovale, and Deep Vein Thrombosis 6 months prior and possible psychiatric diagnosis for continual lethargic behavior. Per the family, the patient had been more “sleepy” and “slow to respond” than usual. She ambulates, but with increasing instability. On exam, she was found to be oriented and not distressed, however drowsy and very soft spoken. Neither the neurological exam nor the remaining physical exam were revealing. Labs on admission were within normal limits except hyponatremia of 128 mEq/L.

A head CT was unremarkable and was followed by an MRI without contrast, which showed a lesion suspicious for herpes encephalitis vs lymphoma or astrocytoma, as no enhancement was seen. An MRI with contrast indicated a signal abnormality involving the corpus callosum in the medial temporal lobe as well as the caudate nucleus and right basal ganglia, adjacent to the pituitary gland. All imaging studies were dissolving the diagnosis of CVA. Continued labs showed worsening hyponatremia at 123 mEq/L along with episodes of hypotension and hyperthermia. This ensued the investigation of adrenal function, hinting to secondary adrenal insufficiency. A lumbar puncture showed a normal cell count and cytology within normal limits, rejecting infectious and embolic etiologies. A brain SPECT indicated a possible malignancy that was not metastasis and had no primary lesion in site.

Malignancy and PNS became leading contenders for diagnosis. Trying to avoid a brain biopsy, a chest CT was done and revealed a right axillary mass-like lesion. An excisional biopsy followed, and a diagnosis of Breast Cancer was made.

PNS, first described in 1960, requires four criteria for diagnosis: A compatible clinical picture, less than 4 years between onset of neurological symptoms and tumor diagnosis, exclusion of other neuro-oncological complications and at least one of the following: cytological, EEG or MRI findings involving the temporal lobe. This patient meets them all.

This case signifies the importance of independent, critical thinking in the face of a presumably already made diagnosis. The lack of enhancement on MRI, the presence of hypothermia, encephalopathic behaviour and laboratory evidence of secondary adrenal insufficiency, steered us towards expanding our roam of differentials, resulting in the diagnosis of breast cancer manifesting as a paraneoplastic syndrome.
Abstract Title:
Localized Cystic Kidney Disease: Distinction From Unilateral Polycystic Kidney Disease

Abstract Text:
Case Presentation:
A 48 year-old Caucasian male with a past medical history of hypertension, hyperlipidemia and nephrolithiasis was referred to the nephrology clinic for an incidental finding of multiple right renal cysts. A renal ultrasound was performed which showed a normal appearing left kidney, however, the right kidney showed diffuse, multiple right renal cysts and the interpreting radiologist suggested the diagnosis of a unilateral autosomal dominant polycystic kidney disease (ADPKD).
The cysts were first noted when the patient developed renal colic in 2008. A left sided kidney stone was discovered at that time for which the patient underwent lithotripsy. He had multiple imaging performed over the years for evaluation of episodes of isolated right flank pain, including renal ultrasounds and CT scans of the abdomen and pelvis. The left kidney was always noted to be of normal appearance, and the right renal cysts did not increase in size or change in appearance since 2008. He denied any further stone recurrence or gross hematuria. He denied any known family history of chronic kidney disease, cystic kidney disease, or cerebral aneurysms. His renal function was stable and blood pressure was adequately controlled. He lacked any significant electrolyte abnormalities.
Based on this information, his clinical presentation and radiological findings, the evaluating nephrologist established a diagnosis of localized cystic disease of the right kidney.
Discussion:
Localized renal cystic disease is a rare disease characterized by multiple cysts in one kidney and can be confused with ADPKD. However, it is a benign entity that could cause harm if misdiagnosed.1,2 Our patient presented with an isolated episode of nephrolithiasis of the left kidney and several episodes of right flank pain over time. These features along with his imaging findings were initially concerning for ADPKD.1 However, our patient only had cystic involvement of the right kidney and did not have cysts or malformations of any other organ.2 He also did not have chronic kidney disease that may be observed after the third decade of life in ADPKD.1,2 Additionally, our patient had stable right kidney cyst appearance on imaging since 2008, with a Bosniak classification Category IIF on CT, making cystic neoplasm much less likely.2 It should be noted that nephrolithiasis does not appear to be a feature of localized cystic kidney disease and his kidney stone was in the normal left kidney.
This case highlights a rare benign entity that physicians should become familiar with to avoid unnecessary potential misdiagnosis of ADPKD. Such implications could lead to unnecessary testing resulting in increased health care costs. Misdiagnosing a patient as having a hereditable, progressive renal cystic disease, such as ADPKD, would psychosocially affect the patient in terms of insurability, mental anguish, and genetic counseling for future generations.
Abstract Title:
An Unexpected Leak

Abstract Text:
Several incidences have been reported on the cases of blunt chest injuries causing native valve aortic regurgitation. There are recommendations to consider evaluation for valvular regurgitation when a patient presents with symptoms of heart failure, acutely or remotely after chest trauma. However, in the case of prosthetic valves, it is extremely vital to assess valvular structure and functionality after any chest injury, regardless of the presence or absence of symptoms. Here, we would like to report the first case of prosthetic valve regurgitation after TAVR (Transcatheter Aortic Valve Replacement) due to blunt chest injury. This is a case of an 87 year old gentleman who was involved in a motor vehicle accident unfortunately 6 months after a successful TAVR with Sapien-3 29mm valve via transfemoral approach for severe symptomatic aortic stenosis. The transthoracic echocardiogram (TTE) done after the TAVR showed only trace aortic regurgitation with mild perivalvular regurgitation. Then after, patient’s ejection fraction eventually improved without any significant aortic insufficiency and he had been doing clinically well until he was involved in that particular motor vehicle accident where he acquired blunt chest injury. An emergent TTE after the chest injury showed misshapen bioprosthetic valve with perivalvular leakage with moderate to severe regurgitation although the patient was asymptomatic. Therefore, after rehabilitation and treatment of the motor vehicle accident, the patient was brought in electively to our institution for aortic valvuloplasty to help minimize the perivalvular leak. Once the valvuloplasty was completed, it was noted that the perivalvular leak was resolved upon evaluation with transesophageal echocardiogram (TEE) and an Aortogram. The transthoracic ECHO done after the valvuloplasty revealed only mild aortic regurgitation. The patient was discharged home safely after uneventful hospital stay. It is now 3 months after the valvuloplasty procedure and patient has been evaluated to be clinically doing well.

Although minor perivalvular aortic regurgitation is common (occurs in 85% of patients) after TAVR, moderate or severe regurgitation is infrequent. However, this patient unfortunately acquired moderate to severe perivalvular regurgitation from a blunt chest injury 6 months after TVAR. This is the first case reports which demonstrates a damaged and leaky valve impacted by a blunt chest injury after TAVR. Although regular monitoring of the perivalvular leak by echocardiogram is recommended after TAVR, it appears that a prompt imaging or echocardiogram to assess the prosthetic valve after trauma regardless of the symptoms can detect significant valvular abnormality at an earlier stage allowing for better repair and patient outcome.
Abstract Title: Appendicitis In Elderly, A Diagnostic Dilemma

Abstract Text:
Introduction:
Acute appendicitis is amongst the most common causes of acute abdomen. It is predominantly a disease of young population with highest incidence during the 2nd and 3rd decades of life. Around 10% of cases of appendicitis occur in elderly, frequently with delayed and atypical presentations. Failure to diagnose in a timely manner is associated with higher morbidity and mortality.

Case Presentation:
A 72-year-old male with hypothyroidism, mild dementia and hyperlipidemia presented to the ED with complaint of weakness and confusion of one-day duration. On arrival to ED patient was febrile with Temp 101.4, otherwise stable vitals. On physical exam the patient was alert and oriented with examination significant for dry mucous membranes and small reducible inguinal hernia. Rest of physical, including chest, abdominal, and neurological exam were normal. Emergent CT head was negative for acute intracranial pathology. Initial pertinent labs revealed leukocytosis with neutrophilic predominance, mild hyponatremia, elevated Procalcitonin and inflammatory markers. Other labs, including lactic acid, and UA were negative. CXR did not reveal infectious pulmonary process. Blood cultures were sent and patient was started on intravenous fluids and empiric antibiotics. Within 24 hours’ blood cultures reported growing gram-positive cocci in chains and diphtheroids. Over next 48 hours he remained clinically stable, but leukocytosis persisted despite antibiotic therapy. Subsequently patient developed abdominal distention and enlargement of left inguinal hernia. CT scan of abdomen-pelvis was performed in lieu of new physical findings and continued leukocytosis. CT abdomen-pelvis revealed appendicolith with appendicular abscess and rupture. Patient was then referred for surgical intervention. Final cultures grew Pseudomonas and previously mentioned organisms. He received IR guided placement of Pleurex catheter to drain abdominal abscess. He was started on Meropenem, and referred for colonoscopy to rule out caecal mass/appendicular base tumor before appendectomy. Patient was discharged from hospital after stabilization.

Discussion:
Acute appendicitis is predominantly a disease of young but due to increase in life expectancy there is an increasing incidence in elderly. Only 10% of appendicitis are seen in elderly. The mortality is 4-8 times higher due to frequent delays in arrival and atypical presentation in elderly. Appendicitis is misdiagnosed around 50% of cases in elderly, and half of those cases have perforation by time of surgery. Frequency to perforation and septic progression is more common in elderly. Typical features of appendicitis are rarely seen and only 20% of elderly present with classical symptoms of anorexia, fever, RLQ pain and leukocytosis. It is important to have high clinical suspicion in elderly because of high mortality and frequent complications. Low threshold for CT scan may help diagnose such cases when source of infection is obscure and clinical suspicion is high. Immaculate physical exam is extremely important and adds valuable information to clinical picture.
Abstract Title: A Confusing Case Of Malignant Seizures

Abstract Text:
A 65 year-old female presents with confusion and new onset seizures. History included SIADH, arthritis, and right-sided breast cancer (T1N0M0). Exam revealed fevers (39.5°C), dysarthria and orientation to only person but no focal neurologic deficits. Labs noted mild leukocytosis and B12 deficiency. Head CT and brain MRI were normal. Urine toxicology and West Nile virus, HIV, and RPR serology were negative. Urinalysis revealed a UTI. Despite treatment with antibiotics and B12, her convulsion and delirium persisted. Lumbar puncture cell count was non-diagnostic. An autoimmune and paraneoplastic serum and CSF panel were sent. EEG showed diffuse slowing. Repeat MRI brain showed significant edema of left temporal lobe. Pan-CT showed subcentimeter axillary lymphadenopathy (LAD). Two weeks later CSF was positive for γ-aminobutyric acid receptor antibodies (GABA-R-ab). Repeat CT chest showed interval development of mediastinal LAD. Lymph node biopsy revealed small cell lung carcinoma (SCLC). Therapy for paraneoplastic limbic encephalitis was thus started with intravenous immunoglobulin (IVIG), pulsed-dose methylprednisolone and chemotherapy. Yet, patient’s mentation was slow to improve.

While specific markers of paraneoplastic limbic encephalitis (PLE) exist, GABA-R-ab is emerging for its association with SCLC. GABA-R-ab positive PLEs often manifest with early seizures. This case reinforces the importance of starting with a broad differential diagnosis in the evaluation of encephalitis.

Literature reports several cases of PLE mistaken for infectious meningitis or encephalitis. Negative infectious work-up and lack of response to antibiotics remain important diagnostic clues for PLE. Index of suspicion for PLE should be high with the presence of pathognomonic features such as temporal lobe seizures. Patients often present with behavioral changes, cognitive dysfunction, and seizures. Diagnostic evaluation must include brain MRI, EEG, paraneoplastic ab testing of serum and CSF, and CSF analysis. Exclusion of other causes of encephalitis such as metastasis, infection, or metabolic causes is imperative.

PLE is associated with certain malignancies, most frequently SCLC but also germ-cell tumors, and lymphoma. These cancer cells express proteins that in normal adult tissues are restricted to neurons and germ cells. The abnormal expression of these cancer-related proteins is the trigger of autoimmunity. Clinical assessment remains the key to diagnosis, as only 60% of PLE cases have detectable ab.

The primary treatment of PLE is prompt treatment of the malignancy. While no evidence-based treatment exists, corticosteroids, rituximab, plasma exchange and IVIG have been effective. Full recovery from PLE is rare and residual cognitive impairment may exist. Early recognition and prompt treatment of PLE may improve neurologic outcomes.
Type B lactic acidosis is a rare oncologic emergency, which can be rapidly fatal if the underlying malignancy is not treated promptly. Although Type B lactic acidosis can be associated with any rapidly growing malignancy, it is more commonly seen with aggressive leukemia or lymphomas than the solid tumors. Diffuse large B cell lymphoma (DLBCL) can rarely cause severe lactic acidosis due to the Warburg phenomenon, where due to the rapid growth of the tumor, tumor cells switch from oxidative metabolism to glycolytic process.

Here, we present the case of a 67-year-old male with history of sarcoidosis and hypertension who presented with worsening fatigue for 3 months. Prior to admission to UF health, he had been admitted to an outside institution with fevers and was empirically treated with antibiotics. He never recovered from this hospital stay and was readmitted with worsening fatigue and severe pancytopenia. Outside bone marrow biopsy suggested possible myelofibrosis. He was transferred to UF health on ventilator support for worsening clinical condition with altered mental status and severe respiratory distress. Infectious workup was negative. A bone marrow biopsy was repeated which showed DLBCL. Despite best supportive care with dialysis, empiric antibiotics, steroids and ventilator support, patient continued to have worsening lactic acidosis and severe coagulopathy. Due to rapidly deteriorating clinical course, his health care surrogates decided to withdraw life supportive measures. His autopsy also confirmed DLBCL involving the liver and the bone marrow. We present the case as type B lactic acidosis is not commonly associated with solid tumors i.e. lymphomas. When encountered, it takes a rapidly deteriorating course and it presents as an oncological emergency. Treating underlying cause and providing supportive care are the best modes of management. This case is also interesting because it emphasizes that malignancy should always be considered when a common metabolic condition as lactic acidosis is encountered in a patient with a negative infectious workup.
Abstract Title:
An Uncommon Cause Of Lactic Acidosis

Abstract Text:
Lactic acidosis is most commonly due to tissue hypo-perfusion leading to increased anaerobic metabolism. Elevated lactic acid levels correlates with survival in critically ill patients, thus when common causes have been eliminated it is important to rapidly recognize other less common causes for lactic acidosis. We present the case of a 66-year-old African American female who presented to the emergency department (ED) with a 3-day history of progressively worsening diarrhea, emesis and malaise. Past medical history was notable for HIV which was well managed chronically on dolutegravir, lamivudine and stavudine and end stage renal disease for which a kidney transplant was performed one year prior. Physical examination revealed an afebrile, hypotensive and tachycardic female with hyperactive bowel sounds. Initial laboratory tests revealed an arterial blood gas pH and sodium bicarbonate of 6.99 and 12 mmol/L respectively, a creatinine level of 2.8 mg/dL, an anion gap of 18 and a lactic acid level of 2.9 mmol/L. On admission the patient was fluid resuscitated and placed on a continuous bicarbonate infusion which resulted in an improvement in her vital signs and correction of her arterial blood pH and sodium bicarbonate levels. After a thorough infectious work-up returned negative, the patient was initiated on loperamide for her diarrhea. Lactic acid levels continued to increase from 2.9 mmol/L to 6.9 mmol/L after 2-days of stable vital signs prompting further diagnostic studies. An abdominal CT scan was obtained which showed a normal appearing gastrointestinal tract and stavudine was discontinued. Despite this, lactic acid levels continued to increase to a maximum value of 8.2 mmol/L. At this point a thiamine level was obtained which was noted to be low at 48 nmol/L. Thiamine replacement was initiated which resulted in gradual resolution of the lactic acidosis by the time of discharge 3-days later. The patient was discharged on a HAART regimen which did not include stavudine. This case illustrates two uncommon causes for lactic acidosis. One of these is medication side-effects. Antiretroviral drugs in particular have been implicated in cases of elevated lactic acid levels which usually takes weeks to resolve after the discontinuation of the causative agent. An even more rare cause of lactic acidosis is thiamine deficiency. Lactic acidosis due to thiamine deficiency is caused by dysregulation of enzymes involved in aerobic carbohydrate metabolism and can be quickly corrected with thiamine supplementation. In our patient, the use of sirolimus led to chronic diarrhea, which is a risk factor for thiamine deficiency, causing elevated lactic acid levels which was quickly corrected with thiamine supplementation. Thiamine deficiency and medication side effect should be considered in otherwise unexplained cases of lactic acidosis.
Abstract Title: Facial Palsy & Atrial Fibrillation: A Special Case Of Ramsay-Hunt Syndrome

Abstract Text:
Ramsay-Hunt syndrome (herpes zoster oticus) is a rare complication of latent Varicella Zoster virus (VZV) infection. It can be complicated by permanent hearing loss, loss of taste, and post-herpetic neuralgia. Although Ramsay-Hunt syndrome most prominently involves the facial nerve, a number of other cranial nerves have been reportedly involved such as the vestibulocochlear nerve, glossopharyngeal nerve and the vagus nerve. We report on a case of Ramsay Hunt syndrome complicated by atrial fibrillation, likely secondary to autonomic nervous system involvement through vagal neuritis. A 60-year-old woman with no history of cardiac disease presented to her primary care physician with several weeks of left ear fullness and tinnitus and a week of left-sided soreness of the throat and sharp left-sided ear pain. Examination was unremarkable, however her presentation was thought to be explained by early acute otitis media and the patient was prescribed one week of oral amoxicillin. Five days after her initial presentation, she presented to the emergency department with facial asymmetry, a left ear rash, fatigue, fever, dysphagia, nausea and vomiting. Examination was significant for a temperature of 39.5 C, an erythematous, edematous left external acoustic meatus with multiple vesicular lesions. Oropharyngeal examination revealed multiple small vesicular and friable mucosal lesions of the left oropharynx. Cranial nerve examination demonstrated involvement of left cranial nerve V (loss of sensation to light touch in the distribution of V1, V2,V3), VII (moderate lower motor neuron facial weakness, House-Brackmann grade III), VIII (left-sided hearing loss), IX and X (reduced gag reflex and dysphonia). She was tachycardic with an irregularly irregular rhythm. An EKG revealed atrial fibrillation with a rapid ventricular response. Varicella Zoster DNA PCR from a blood sample was positive. MRI of the brain was highly suggestive of viral cranial polyneuritis due to Ramsay-Hunt syndrome. The patient was treated with intravenous acyclovir and methylprednisolone. Intravenous diltiazem decreased the patient’s heart rate and allowed reversion to normal sinus rhythm. Atrial fibrillation recurred later during hospitalization, but once again spontaneously resolved. The patient was discharged after intravenous antiviral and steroid therapy. Seven day Holter monitoring after discharge did not demonstrate recurrence of atrial fibrillation. Ramsay Hunt Syndrome is a rare but established cause of facial palsy. A high index of suspicion is required to allow early diagnosis and therapy to improve chances of recovery. We hypothesize that in our patient with Ramsay Hunt syndrome with cranial polyneuritis, autonomic mediated atrial fibrillation was possibly induced through involvement of the vagus nerve.
Raoultella planticola is a gram-negative, non-motile rod associated with soil, plant, and aquatic environments. It is a very rare human pathogen, with only 29 cases reported to date, 7 in the United States. We present a case of Raoultella planticola urinary tract infection in an autologous stem cell transplant recipient, the third case reported thus far.

The patient is a 73 year old female with a history of stage IIIA IgA kappa multiple myeloma (status post chemotherapy and autologous stem cell transplant), hypertension, atrial fibrillation, and Clostridium difficile diarrhea treated with oral vancomycin. She presented to the hospital febrile to 102.7 and no other symptoms except mild loose stools which she had for months.

She was started on intravenous vancomycin, cefepime, metronidazole, and oseltamivir. Her oral vancomycin was continued. Two sets of blood cultures and a respiratory viral panel were negative, but Clostridium difficile PCR was again positive. All other stool cultures were negative. She was continued on oral vancomycin and eventually defervesced. Seven days later she became febrile to 102.2 with associated dysuria.

Urinalysis was positive for nitrite and 230 WBC/hpf. She was started on empiric cephalexin awaiting culture results. Urine cultures finalized as > 100,000 col/ml Raoultella planticola, confirmed with a Vitek 2 biochemical identification system with a 99% probability. The patient revealed that although she did occasionally garden, she did not have any open wounds, handle soil, ingest or wash her clothes with well or stream water, or have any other risk factors which would have predisposed her to a Raoultella planticola UTI.

She was started on a 7-day course of nitrofurantoin 100 mg twice daily and her symptoms resolved. She was successfully discharged from the hospital on the remainder of her oral vancomycin taper for her Clostridium difficile.

Raoultella planticola infections have been most frequently reported in immunocompromised patients (malignancy, diabetes, dialysis-dependent renal failure, and post-transplant). The most common sites of infection include: conjunctivitis, pneumonia, cholangitis, and bacteremia. Epidemiologically, 7 cases occurred in the United States, and this particular case marks the first reported case in the Southeastern United States.

It is likely that immunosupression (due to her chemotherapy as well as autologous peripheral stem cell transplant within the past 3 months) gives a possible explanation as to why this patient was predisposed for this specific infection, either as a dormant colonizer or opportunistic infection, as has been postulated in the literature.

In conclusion, Raoultella planticola is a rare human pathogen which can cause a variety of infections, and is seen in patients exposed to contaminated soil or who are immunocompromised. It is prudent to be aware of this potential pathogen in this patient population, and to closely monitor its patterns of antibiotic resistance.
Abstract Title:
HHV-8 Responsible For A Multicentric Castleman’s Disease Subtype

Abstract Text:
Case:
A 33-year-old male with medical history significant for AIDS with a CD4 count of 10 and Cryptococcal meningitis, who presented with a chief complaint of dyspnea and headache over the last two weeks. Initial work up including lumbar puncture, CT head and blood cultures were negative. Laboratory was significant for macrocytic anemia, elevated LDH, elevated indirect bilirubin and decreased haptoglobin level were consistent with hemolytic anemia. Patient’s physical exam was significant for jaundice, diffuse skin rash, and cervical, axillary and inguinal lymphadenopathy prompted to obtain CT chest, which revealed diffuse lymphadenopathy and hepatosplenomegaly. Lymph node excisional biopsy pathology report revealed atypical angioimmunoblastic lymphadenopathy with positive immunohistochemical stain for HHV-8 consistent with Multicentric Castleman’s Disease. Coombs test revealed warm autoimmune hemolytic anemia. Patient’s ongoing anemia was refractory to steroid therapy, subsequently requiring staged splenic embolization leading to splenectomy and rituximab for severe refractory hemolytic anemia. Oncological therapy included treatment with Rituximab and Etoposide along with Ganciclovir as an adjunctive therapy for HHV-8 viremia as well as blood transfusions with preventative measures for tumor lysis syndrome for a total of 4-weeks.

Discussion:
Multicentric Castleman’s Disease (MCD) is a rare lymphoproliferative disorder that affects more than one lymph node and it is commonly seen in immunocompromised individuals with HIV infection. Patients present with type B symptoms that includes fevers, malaise, night sweats, anorexia and weight loss, nerve damage as well as diffuse lymphadenopathy as similar in the patient in this case. Patients often may have autoimmune anemia, pancytopenia, elevated risk of lymphomas and increased risk of severe, complicated and difficult to treat infections. Subtype of MCD is common in advanced HIV/AIDS individuals and in recent years, HHV-8 or Kaposi sarcoma herpesvirus is found in nearly all patients diagnosed with MCD who are infected with HIV. Treatment of MCD is dependent on viremia and it includes antiretroviral therapy with immunosuppression as well as chemotherapy therapy to decrease the proliferation of lymphatic cells. HHV-8 viral levels can be used to monitor response to therapy. As in the case above, if hemolytic anemia is seen with the MCD, treatment for hemolytic anemia may be utilized. Other chemotherapy agents such as Thalidomide may also be used to decrease IL-6 to reduce cell overgrowth.
Abstract Title:
A Case Of Endogenous Bacterial Endophthalmitis In The Setting Of MRSA Bacteremia

Abstract Text:
A 65 yo female was admitted to the hospital for fevers and right eye pain of three days duration. She had a past medical history of HTN, breast cancer, HFrEF s/p pacemaker placement, T2DM, and ESRD on hemodialysis. She had no recent ophthalmologic surgery or trauma. In the ER she had a temperature of 102.7˚F, respiratory rate of 29 breaths per minute, and a leukocytosis of 18k cells/mm3. Visual acuity in right eye was to counting fingers and positive for an afferent pupillary defect. A hypopyon was present only in the right eye. She was started on Vancomycin and Zosyn. Blood cultures grew MRSA. Her tunnel catheter, the likely source, was exchanged and its tip cultured which grew MRSA. Ophthalmology was consulted and started cyclogyl, topical Vancomycin and topical Tobramycin. Three intravitreal injections of Vancomycin and Ceftazidime were performed. Intraocular cultures were negative. Vancomycin was switched to Daptomycin due to persistent MRSA bacteremia. Three days after admission visual acuity was to hand motion and within one week deteriorated definitively to no light perception in her right eye. Despite being on Daptomycin for greater than one week, she remained bacteremic and Ceftaroline was added. Hospitalization was complicated with infected pacemaker generator that was extracted.

Endophthalmitis is a rare but severe ophthalmic emergency. Most cases of endophthalmitis occur as a result of ocular surgery and the majority involve fungi as the causative agent in developed countries. Endogenous bacterial endophthalmitis (EBE) occurs in less than 10% of all cases of endophthalmitis and results from hematogenous spread from a remote source. Risk factors for EBE include immunosuppression, diabetes mellitus, indwelling catheters, and IV drug abuse. Patient presentations range from asymptomatic to symptoms consistent with severe uveitis. EBE should be suspected in any patients with bacteremia and ophthalmological changes. Suspicion of EBE requires prompt evaluation by an ophthalmologist. The ocular exam is crucial and a key diagnostic finding is the presence of a white infiltrate originating from the choroid and sometimes spreading anteriorly into the vitreous and aqueous humor. The majority of EBE only involve one eye. Diagnosis is based on clinical findings and blood cultures since vitreous cultures are negative, as in this case, and in about half of documented cases. Treatment of EBE involves intravenous antibiotics to control the source of the infection and intravitreal antibiotics. A vitrectomy should be considered if there is no improvement with intravitreal antibiotics. The prognosis of EBE is usually poor as most patients lose their vision, especially if treatment is delayed.
Abstract Title:
A Case Of Obstructive Sleep Apnea And Uncorrected Atrial Septal Defect Progressing To Eisenmenger Syndrome

Abstract Text:
Case:
A 22 y/o female patient with significant medical history of Down Syndrome, Obstructive Sleep Apnea (OSA) and non-compliance with CPAP, Hypothyroidism and history of PDA closure at young age who was hospitalized secondary to worsening dyspnea two days’ post-mastoidectomy. Associated symptoms included malaise, non-productive cough, severe edema of the lower extremities and weight gain. Chest imaging was negative for pulmonary embolism, but pertinent for cardiomegaly and pulmonary edema. Pro-BNP was elevated at 4225. Patient was placed on non-invasive ventilation and diuresis with good response to in lower extremity edema, but continuous hypoxia. Physical exam significant for systolic murmur around the third intercostal space and severe lower extremity edema. Transthoracic echocardiogram(TTE) with bubble study demonstrated ejection fraction of 50-55% with right ventricle systolic pressure of 57 mmHg with severe right ventricular enlargement and interatrial shunt consistent with newly developed atrial septal defect (ASD).

Patient underwent right and left heart catheterization which showed moderate pulmonary arterial hypertension (PAH) and right to left interatrial shunt leading to Eisenmenger phenomenon. Surgical intervention and closure of ASD was not performed because of increased risk of mortality due to right heart failure. Patient was subsequently treated in the intensive care unit with Treprostinil, an analog of prostacyclin for PAH with good clinical response and improvement of hypoxia. Counseling made for strict adherence to medication, weight loss, diet control, CPAP and close follow up as an outpatient to monitor symptoms.

Discussion:
The development of Eisenmenger syndrome may develop as a result of any right to left shunt such as an ASD associated with Down syndrome. Eisenmenger syndrome is a reversal of pressure gradients from the normally elevated left side to right to left side across a shunt. Uncorrected ASD may lead to pulmonary hypertension and right sided heart failure. As in this case, the compounding effect was the group I PAH secondary to obstructive sleep apnea and non-compliance with the CPAP machine, leading to accelerated progression to Eisenmenger syndrome. Individuals should be treated with diuretics, vasodilators, and supplemental oxygenation with concentration on modifiable risk factors for worsening heart failure and hypoxia. Once Eisenmenger syndrome has occurred, significant mortality is seen as the pressures of the right ventricle have elevated to the level of reversal of shunt in atria. If the ASD is closed, there is a chance of immediate right ventricular failure due to the pump failure against a severely elevated pulmonary arterial pressures. A right heart catheterization must be completed to evaluate for reversibility of pulmonary pressures with vasodilator challenge prior to surgical intervention.
Abstract Title:
Small Cell Lung Cancer In The Pancreas: An Unusual Metastasis Diagnosed By Endoscopic Ultrasound Guided Fine Needle Aspiration

Abstract Text:
The vast majority of pancreatic neoplasms originate from the pancreas. Although uncommon, when metastatic neoplasms of the pancreas occur, they most commonly originate from renal cell carcinoma or colorectal cancer. Identifying a pancreatic mass as metastases is crucial because the type and origin of the malignancy will direct therapy. Advancements in endoscopic ultrasound guided fine needle aspiration (EUS-FNA) have proven very helpful in diagnosing pancreatic masses and differentiating metastatic disease from primary pancreatic malignancy. We present a case of a patient recently diagnosed with small cell lung cancer who was found to have an incidental pancreatic mass. Small cell lung cancer (SCLC) is a rapidly progressive neoplasm with 60-70% of patients presenting with overt metastatic disease. Despite the aggressive nature of SCLC, metastases to the pancreas are rare. Evaluation of this mass by EUS-FNA revealed small cell carcinoma. Immunohistological testing performed on the sample supported a lung primary as the source. A 63 year old female with a 50 pack-year smoking history presented to her primary care physician with complaints of persistent cough for 6 weeks duration. Imaging revealed a 5cm right upper lobe mass obstructing the right upper bronchus. FNA of the mass was performed and the diagnosis of small cell carcinoma was made. She was subsequently referred to the department of gastroenterology for evaluation of a pancreatic mass that was incidentally found during routine staging of her lung neoplasm. After the initial evaluation, informed consent was obtained and the decision to proceed with EUS-FNA was made. An irregular hypoechoic mass measuring 28mm by 23mm was identified in the uncinated process of the pancreas. Fine needle aspiration was performed from a transduodenal approach with three passes of a 25 gauge needle. Many enlarged lymph node groups were identified including subcarinal, paraesophageal, celiac, and aortocaval regions which were sampled via FNA as well. Pathology results from the pancreatic mass was positive for small cell carcinoma. Immunostaining was positive for TTF-1 which suggests that the pancreatic lesion is metastatic from the lungs. Small cell carcinoma of the lung occurs almost exclusively in patients with significant smoking history. It is reported that only 4% of cases have an extra-pulmonary origin, with 1% originating in the pancreas. Demonstrating a case of this uncommon metastatic process highlights the importance of endoscopic ultrasound in the evaluation and diagnosis of pancreatic lesions. Sonographic features provide insight into the nature of the tumor. Furthermore, characterizing and sampling regional lymph nodes can also provide information about staging. If the tumors are solitary a surgical plan may be considered. In this case, EUS-FNA confirmed metastatic small cell lung cancer to the pancreas. The patient is currently being treated with chemotherapy and radiation therapy.
Abstract Title:
Pancreatitis Associated With A New HAART

Abstract Text:
Introduction:
Acute pancreatitis is a condition characterized by systemic inflammation of the pancreas. Common etiologies in general population include alcohol abuse and choledocolithiasis. The incidence of acute pancreatitis in HIV infected individuals is known to be higher than general population, and epidemiologic studies suggest it might be as high as 40%. Many HAARTs have been reported to cause pancreatitis. In this case report, we present a possible side effect of newly FDA proven medication Genvoya.

Case:
This patient is a 65 year old gentleman with past history significant for HIV infection on HAART (started on Genvoya 4 weeks ago) and non hodgkin lymphoma two decades ago presented with new onset abdominal pain over six hours. Pain was stabbing, 10/10 in severity, increased with movement and decreased while lying still. Patient was unable to provide detailed history during first encounter due to severe pain. Physical exam was performed after administering intravenous morphine, Patient was hypertensive 180/80 mmHg, despite a negative prior history of hypertension. Severe epigastric tenderness was appreciated, with active bowel sounds on abdominal exam. Pertinent lab workup on admission revealed elevated lipase 607 IU/l, mildly elevated LFTs with no leukocytosis. Patient was managed with IV fluids, NPO diet (Genvoya was held) and pain control. Gastroenterology consult was placed. CT scan of the abdomen without contrast was done on admission and did not reveal any acute findings. Both MRI abdomen and HIDA scan were done 8 days prior to admission and did not reveal any evidence of cholelithiasis. Patient denied any alcohol use, which was supported by ALT/AST ratio >1. Calcium and triglyceride levels were within normal limits. On the next day, Lipase levels increased to 1396 IU/l. Patient continued to improve clinically and liquid diet was advanced. Genvoya was not given. On third day of admission, lipase levels returned to normal, and patient was tolerating full diet with no issues. Patient was later discharged with appropriate follow-up with his primary and infectious disease physicians to consider adjusting HAART regimen.

Discussion:
Genvoya is a new HAART approved by FDA in November 2015 for eligible HIV infected individuals. It is composed of Elvitegravir (integrase strand transfer inhibitor), Cobicistat (CYP3A inhibitor), and Emtricitabine (NRTI) and Tenofovir alafenamide, which is a novel phosphonoamidate prodrug of Tenofovir used for the first time in HAART. Despite the well established association between many HAARTs and acute pancreatitis, no data has yet been published in regards of Genvoya use and incidence of acute pancreatitis. To our knowledge, this is the first documented case report that links initiation of Genvoya therapy to acute pancreatitis. Other possible etiologies, including choledocholithiasis, alcohol use, hypercalcemia, and hypertriglyceridemia have been ruled out before making the diagnosis.
Abstract Title: Two Causes Of Sudden Cardiac Death In One Patient

Abstract Text:
Introduction:
Coronary artery anomalies (CAA) effect approximately 1% of the general population, ranging from 0.3%-5.6% in studies of patients undergoing coronary angiography, and in approximately 1% of routine autopsies. Congenital coronary anomalies, although rare, are the second most common cause of sudden cardiac deaths (SCD) in young patients.

Case:
A 46 year-old Haitian male with past medical history of hypertension and hyperlipidemia presented with 3 days of left sided chest pain. The pain was intermittent, occurring multiple times a day and lasting for several minutes. It was moderate in intensity, pressure-like, radiating to the left shoulder and arm, with associated palpitations, dyspnea and lightheadedness. The 12-lead electrocardiogram (ECG) on admission showed sinus rhythm and findings suggestive of a left ventricular hypertrophy with strain pattern. Initial blood work was significant only for a creatinine of 1.6 with the other tests including a troponin being normal. The patient was admitted to the medical floor on telemetry monitoring. A 2-Dimensional echocardiogram showed hypertrophic cardiomyopathy (HoCM) without obstruction, asymmetric septal hypertrophy (1.8cm), left ventricular ejection fraction of 60%. A CT coronary angiography showed a left anterior descending artery (LAD) arising from the right coronary cusp, having an intra-arterial course between the aorta and pulmonary trunk. The left main arose from left cusp and divided into the ramus intermedius and left circumflex. Coronary circulation was right dominant without any evidence of coronary artery disease. A pharmacological stress test was negative for stress induced ischemia, scar or transient ischemic dilatation. The patient was discharged home on metoprolol, verapamil and atorvastatin with an outpatient cardiology follow-up.

Discussion:
The use of coronary CT can substantially increase the prevalence of CAA than invasive angiography. Anomalous LAD with an intra-arterial course can be a cause of sudden cardiac death (SCD) for reasons which remain unclear. One possible explanation involves exercise induced expansion of aorta and pulmonary trunk, an increase to the existing angulation of the anomalous artery, which decreases the luminal diameter and results in ischemia. An abnormal course within the aortic wall can also cause lateral compression and ischemia. In this situation the ECG and stress testing may be normal. An incidentally discovered anomalous coronary artery in a middle aged or elderly individual carries less risk of SCD.

Conclusion:
Coronary CT is the gold standard test for identifying CAA. Not all anomalies of coronary artery have a malignant course. Pre-pulmonic (anterior to right ventricular outflow tract) and retro-aortic courses (posterior to aortic root) are low risk for sudden cardiac death. Both HoCM and anomalous coronary artery with an intra-arterial (malignant) course can be a cause of sudden cardiac death and whether they increase the risk even further when present together remains to be explored.
Hypogonadism As A Presentation Of Subclinical Apoplexy

Pituitary apoplexy is a well-known life-threatening complication of macro adenomas. As opposed to acute apoplexy, subclinical apoplexy occurs when there is chronic necrosis of a pituitary adenoma. Its presentation is non-specific and may include chronic headaches and visual deficits. Here is the case of subclinical pituitary apoplexy presenting as hypogonadism.

A previously healthy 54-year-old black male from Jamaica presented to his primary care doctor to establish care. His primary care provider ordered a series of tests and proceeds to refer patient to the urologist after finding an abnormal testosterone level. Further evaluation by the urologist revealed a total testosterone level of 12.0 ng/dL (250-1100 ng/dL) and free testosterone of 1.7 pg/mL (35-155 pg/mL), LH <0.2 mIU/mL (1.5-9.3), and prolactin of 21.1 ng/mL (2-18.0 ng/mL). An MRI of the brain and pituitary gland with gadolinium demonstrated a large mass emanating from the sella turcica with fluid level, measuring 2.6 x 2 cm suggestive of necrotic or hemorrhagic pituitary macro adenoma.

After these findings he presented to the endocrinologist for further work up at which time he denied having any recurring headaches or vision changes. He reported normal puberty and has one child. He admitted to having overall decrease in body hair and erectile dysfunction of two years with decreased morning erections and no nocturnal emissions. On physical exam he appeared younger than his stated age. There were no cushingoid or acromegalic features. Extraocular movements were normal and fundoscopic examination did not reveal papilledema. Subtle gynecomastia was present. The penis was normal as well as the scrotum.

Ther was bilateral testicular atrophy and absence of typical male pattern escutcheon. The skin color was normal and there was no evidence of striae. Cranial nerves II-XII were intact and deep tendon reflexes were 2+. A complete pituitary hormone work up was ordered as well as a bone density measurement. Morning cortisol was 1.0 mcg (4.0-22.0 mcg), ACTH 17 pg/mL (6-50 pg/mL, growth Hormone <0.1 ng/mL, IGF-1 55 ng/mL (50-317 ng/mL), TSH 2.50 mIU/L (0.40-4.50 mIU/L), free T3 2.4 pg/mL (2.3-4.2 pg/mL), free T4 0.7 ng/dL (0.8-1.8 ng/dL). Osteoporosis was also diagnosed after patient was found to have a L-spine T-score of -2.5. Evaluation by a neuro-ophthalmologist did not reveal bilateral hemianopia. The patient was subsequently started on hydrocortisone 20 mg/day awaiting neurosurgical evaluation and underwent successful transsphenoidal removal. Following surgery he was started on testosterone replacement.

This case presents an opportunity to recognize the value of complete endocrine work up for abnormal testosterone levels. Indiscriminate testosterone supplementation without appropriate work up may overlook potential life-threatening conditions such subclinical apoplexy, a disorder with potentially life-threatening complications.
Abstract Title:
Gastric Outlet Obstruction Due To Pyloric Stenosis As A Late Complication Of H. Pylori Infection

Abstract Text:
Introduction: Pyloric stenosis resulting in gastric outlet obstruction is now a relatively rare complication of peptic ulcer disease and H. Pylori infection thanks to advances in medical management. Despite this, the prevalence of H. Pylori infection in developing countries is still high.
Case description: A 76-year-old Haitian woman with no known past medical history presented to the emergency department with sharp and constant abdominal pain and non-bilious emesis for 2 days. Vital signs were within normal limits and physical exam revealed an elderly cachectic woman with a distended abdomen, hypoactive bowel sounds, and mild right upper quadrant and epigastric tenderness to palpation. CT of abdomen/pelvis revealed a markedly dilated stomach, 20 x 27cm dimensions. No other abnormalities were noted on imaging. A nasogastric tube was inserted and the patient reported symptomatic relief of pain. On further investigation, patient reported that she had a twenty-year history of abdominal discomfort, nausea and vomiting, and was only treated symptomatically in Haiti. An esophagogastroduodenoscopy was performed which identified areas of ulceration in the body and pylorus of the stomach. A pyloric stricture was also noted and deemed the cause of the gastric obstruction. Endoscopic balloon dilatation failed to relieve the stricture on 2 attempts and the patient subsequently underwent a subtotal gastrectomy with a Roux-en-Y gastrojejunostomy and temporary G-tube. Pathology confirmed H. pylori infection and chronic gastritis, no evidence of dysplasia or malignancy. Treatment was initiated with PPI-triple based therapy (amoxicillin, clarithromycin, pantoprazole). Patient tolerated surgery well and was able to advance to oral diet without complications. Patient was discharged to continue antibiotics for total of 14 days. G-tube was removed on subsequent outpatient follow-up.
Discussion: This case illustrates the potential benefit of screening and treatment in high-risk populations for H. pylori infection. This patient suffered complicated peptic ulcer disease leading to gastric outlet obstruction requiring major surgery; a complication which could have been easily prevented had she been screened and treated for H. Pylori on initial presentation years ago. The epidemiology of H. Pylori is essential in considering the diagnostic approach and treatment of pyloric stenosis and gastric obstruction.
Abstract Title:
Simultaneous Bilateral Thromboembolism As An Unusual Complication Of Atrial Fibrillation

Abstract Text:
Introduction
Atrial fibrillation is the commonest sustained arrhythmia in clinical practice. Ischemic stroke is the predominant complication, but extracerebral thromboembolism also contributes to the elevated morbidity and mortality in AF. More commonly acute thromboembolism affects only one extremity. Bilateral extremity is much less common. We present a case of bilateral distal thromboembolism as a rare complication of atrial fibrillation in a young man with new cardiomyopathy.

Case Presentation
A 38-year-old man with no significant past medical history presented with one week of worsening dyspnea on exertion, orthopnea and productive cough. On presentation, his pulse was noted to be 130, irregular with stable blood pressure and physical exam was remarkable for bibasilar rales on auscultation. ECG showed atrial fibrillation with rapid ventricular response and nonspecific ST abnormalities. CXR revealed scattered reticulonodular opacities and a right lower lobe focal consolidation. Echocardiogram showed normal left ventricular size, ejection fraction of 40% and mild to moderate mitral regurgitation. Contrast study was negative for intracardiac shunting. Patient was admitted and started on anticoagulation. Rate control strategy was initiated. Cardiac catheterization was planned, however and shortly after admission, patient complained of acute onset of bilateral lower extremity pain with numbness. Physical exam was remarkable for absent dorsal and pedal pulses. Arterial ultrasound confirmed occlusion in the mid right and left SFA. Pharmacologic thrombolysis with TPA was initiated. A follow up angiography showed successful thrombolysis of bilateral popliteal arteries.

Discussion
Atrial fibrillation (AF) is the most common cardiac arrhythmia that can have adverse consequences related to ischemic stroke and peripheral embolization.
In atrial fibrillation, the average annual stroke risk is increased by 2.3% (mortality 30%). The annual incidence of acute limb ischemia is 0.4% (mortality 16%). Bilateral simultaneous lower extremity thromboembolism is a rare presentation. Patients with severe limb ischemia may require immediate surgical embolectomy or revascularization to prevent limb necrosis, rhabdomyolysis, and tourniquets’s toxic reperfusion. Anticoagulation is recommended for long term therapy. If ischemia is irreversible, amputation is performed. Due to severe outcomes if not treated timely clinicians should have a high suspicious to diagnose and treat lower extremity thromboembolism.
Abstract Title:
**An Office-Based Endeavor To Increase Screening Colonoscopy Rates**

Abstract Text:
**Introduction:**
Nearly 137,000 people in the United States are diagnosed with colorectal cancer (CRC) each year and over 50,000 die because of it annually. The five-year survival rate for people with CRC discovered early is greater than 90 percent. Only 39 percent of CRC’s are found at that early stage. Screening has been shown to be cheaper than treating CRC if compliance rates are high and the cost of screening tests is reasonable. We conducted a retrospective study at the JFK Internal Medicine Faculty and Resident Practice, a practice with ~8000 active patients, to evaluate whether resident and patient education helped increase screening colonoscopy rates in an outpatient setting.

**Methods:**
During the original chart review conducted from December 2015 through January 2016, we identified 1202 patients ranging in age from 50-75. Out of the 1202 patients, we identified 740 as having no colon cancer screening documented in the chart. Our office implemented a standard process for documenting whether a patient has undergone colon cancer screening, which included our medical assistants and residents routinely asking our patients whether they have had colon cancer screening and recording the date of the screening in the preventive medicine section of the electronic medical record. In March 2016, a resident offered a lecture borrowed from the American Cancer Society to all residents highlighting the importance of colon cancer screening in the outpatient setting. In August 2016, our office sent mailers reminding patients of the importance of screening for colon cancer. 140 mailers were returned due to improper addresses. In November 2016, we reviewed the list of 600 patients to see if the lecture and mailer had helped increase screening colonoscopy rates.

**Results:**
Out of the 600 patients, 155 had colon cancer screening documented (29%). 416 patients (69%) did not have any office visits during this time period. 23 patients (4%) did not have colon cancer screening documented or addressed. 2 patients were excluded as they were over age at the time of the review and 4 patients had died.

**Conclusion:**
One lecture and one mass mailing had some effect on increasing patient awareness and changing patient attitudes towards screening for colon cancer. This may be due to apprehension towards colonoscopy preparations or misconceptions about what constitutes colon cancer screening (e.g. newer stool testing). With implementation of universal screening by our medical assistants, we anticipate our screening rates will be higher when we follow patients over a longer period. We can focus our efforts on ensuring regular and timely follow up as one strategy to improve screening rates. Further research is required to develop effective tools to educate patients, eradicate misconceptions, and increase colon cancer screening rates.
Abstract Title:
Occam’s Needle: A Rare Case Of Iatrogenic Stroke And MI.

Abstract Text:
Introduction
Air embolism is a rare but potentially catastrophic event that occurs as a consequence of the entry of air into the vasculature. Procedural complications or trauma typically result in venous air embolism; however arterial air embolism involving coronary or cortical vessels may occur.

Case:
A 68-year-old male with history of severe COPD and remote lung carcinoma status post right lower lobe lobectomy presented with a 11 mm left lower lobe pulmonary nodule suspicious for recurrent malignancy. The patient underwent a CT-guided fine needle aspiration of left lung pulmonary nodule with fiducial marker placement. The patient was placed in prone position for the biopsy, however during the procedure, the patient became hypotensive (70/52 mm Hg) and bradycardic (38bpm). A ‘Code Blue’ alert was initiated, and atropine and intravenous fluid bolus were administered without an appropriate response. During the ‘Code Blue’ alert, the patient complained of sudden onset left arm weakness and numbness, as well as difficulty speaking. Neurological examination confirmed dysarthria and left sided hemiparesis with sensory deficits. A ‘Stroke Alert’ was initiated for NIH Stroke scale of 13. Additionally, the patient was noted to have ST elevations on telemetry; a 12-lead EKG confirmed infero-septal ST-elevation myocardial infarction. The remainder of the physical exam was unremarkable. Troponin was negative, and glucose was within normal limits. A CT brain obtained, revealed scattered air within multiple right frontal sulci, likely within the cortical vessels, and including the cavernous sinus. A CT chest illustrated air in the left atrium, suggestive of an air embolism. The patient was stabilized and subsequently transferred to a neuro-interventional tertiary care facility for further management.

Discussion:
Systemic air embolism is an extremely rare complication of percutaneous CT-guided lung biopsy, occurring at a rate of 0.02-0.7%. Embolism occurs either by direct entry of gas into pulmonary veins or arteries of the systemic circulation, occluding the microcirculation, resulting in ischemic end organ damage. The brain and the heart are most vulnerable to arterial ischemia from microbubbles. Studies have shown that prone positioning is considered a risk factor and therefore should be avoided. The literature suggests that 2.0 mL of air in the cerebral arteries and 0.5-1.0 mL in the coronary circulation may be fatal. Initial management of systemic air embolism includes supportive care, mechanical ventilation, vasopressors, volume resuscitation, and supplemental oxygen. Patients with cardiac, neurological, or respiratory complications benefit from hyperbaric oxygen therapy. In addition to hyperbaric oxygen therapy, the preferred treatment options are positioning maneuvers, and heparinization.

References:
Abstract Title: Adoption Of A Multifaceted Intervention To Improve Inpatient Influenza And Pneumococcal Vaccination Rates At A VA Hospital

Abstract Text:
Introduction:
Vaccination against Streptococcus Pneumoniae and influenza are effective in preventing pneumococcal disease and influenza, respectively. While vaccine effectiveness of the seasonal influenza vaccine ranges between 10-60%, vaccination against Streptococcus Pneumoniae has a demonstrated efficacy as high as 75% for both the pneumococcal conjugate (PCV13) and the pneumococcal polysaccharide (PPV23) vaccines. Currently, national vaccination rates against the influenza virus and Streptococcus Pneumoniae are low. Only 38.1% of adults aged 18 years and older were vaccinated against influenza during the 2010-2011. Adult pneumococcal vaccination coverage among high-risk adults aged 19-64 is at 18.5% and at 59.7% for adults aged >65. These numbers are well below the Healthy People 2020 targets. Hospitalization offers an often-missed opportunity to vaccinate patients. Well-designed interventions such as standing orders for vaccines have proven successful in increasing vaccination rates in hospitalized patients. At our institution, a review of the data demonstrated that our inpatient vaccination rates were below target and we saw this as an opportunity to develop an intervention to increase pneumococcal vaccination rates.

Methods:
We measured the baseline number of influenza and pneumococcal vaccines administered to patients hospitalized between 2014 and 2016. Starting at the end of August 2016, our Quality Improvement team developed a multifaceted intervention to increase inpatient pneumococcal vaccination rates, including hospital-wide nursing and physician education and restructuring of the vaccination template reminder at the time of admission and on nursing shift assessment notes instead of at the time of discharge. The new template reminder was launched in November.

Results:
In 2014 and 2015, 164 and 172 patients received the flu vaccine while inpatient, respectively. This represented 2% of all discharges. In 2016, 257 patients received the flu vaccine while inpatient, which represents 3% of all discharged patients, and a 50% increase compared to the previous 2 years. Between August 2014 and August 2016, 65 patients received pneumococcal vaccination during their hospitalization, which represented 0.42% of all hospitalized patients. Between September 2016 and December 2016, a total of 44 hospitalized patients were vaccinated by the time of discharge, which represents 2.7% of all discharges, and a greater than 4-fold increase compared to previous months.

Conclusions:
Multifaceted approaches have been shown to be effective in improving vaccination rates. Education along with introducing electronic reminders about vaccination earlier on in the hospital stay was successful in improving pneumococcal vaccination rates in hospitalized patients. Future directions will consist of implementing other interventions as well as monitoring their effect and determining their sustainability.
Abstract Title:
Caution The Crypts Of Solid Organ Transplant: A Case Of Cryptococcal Meningitis In A Ddkt Recipient

Abstract Text:
Cryptococcal meningitis is a significant infectious complication of solid organ transplant (SOT) patients. There is association with high morbidity and mortality and often the infection is not identified in a timely manner. We present a case of cryptococcal meningitis in a male DDKT recipient to provide awareness and further insight into these often non-specific presentations. This should serve to aid in diagnosis as well as provide a discussion of appropriate treatment options in such patients.

The patient was a 77 y.o. Haitian male with history of ESRD secondary to ADPKD, HTN, HLD, prostate cancer s/p radiation treatment, and latent TB treated pre-transplant who received a DDKT in March 2016. He received induction immunosuppression with Thymoglobulin, Simulect, and Solumedrol and maintenance therapy with Prograf and Myfortic. Appropriate opportunistic infection prophylaxis with Bactrim and Valcyte was also given.

Nine weeks post transplant he initially presented to an outside hospital with generalized weakness, fatigue, decreased oral intake, and confusion of 1-week duration. He was afebrile without leukocytosis but urine culture grew E. coli. CXR showed chronic apical changes consistent with previous TB infection but no acute process. CT-brain was grossly normal. He was started empirically on Cefepime for UTI. However, when his mental status did not improve an LP was performed and CSF was positive for cryptococcal antigen. He had no known risk factors or exposures except for potential transmission from donor. He was transferred to our institution for further management. We started liposomal amphotericin B and flucytosine along with reduction in immunosuppression. Serial therapeutic LPs were performed with guidance from transplant ID leading to significant clinical improvement. He was later transitioned to maintenance therapy with fluconazole. The mode of transmission was later confirmed to be from the donor whose status was not initially known.

This case illustrates the importance of risk factor identification, prompt diagnosis, and initiation of appropriate therapy in cryptococcal meningitis. It also provides a point of discussion for practitioners to review proper diagnostic and therapeutic measures in such patients to positively affect health outcomes.
Abstract Title:
Non-Tuberculous Mycobacterial Infection In COPD Patients – An Evaluation Of Predisposing Comorbidities

Abstract Text:
BACKGROUND:
Non-tuberculous mycobacteria (NTM) are gram-positive, acid-fast organisms that are found naturally in the soil or water. Respiratory infections by NTM are more likely to occur in individuals with other lung diseases, such as chronic obstructive pulmonary disease (COPD). While the incidence and prevalence of NTM has been described, an evaluation of comparative risk among pulmonary and non-pulmonary comorbidities has not been reported. We examined the associations between various comorbidities and pulmonary NTM infections among military veterans with COPD, and analyzed mortality rates in patients with NTM and COPD, compared to COPD patients without NTM.

METHODS:
Retrospective data were collected using the Veterans Affairs Informatics and Computer Infrastructure (VINCI), a data platform that extracts information from medical records for patients seen at any Veterans Affairs (VA) Hospital in the US from 2000-2016. The platform was queried for patients with a diagnosis of COPD (ICD9: 491; ICD10: J.44.0, J44.1, J44.9). Each data point represented one individual. Subjects with multiple encounters were condensed, and duplicates were removed. This subset was then queried for patients with superimposed pulmonary NTM (ICD9 031; ICD10: A31-9), defined as being diagnosed with NTM after, or up to one year prior to, the diagnosis of COPD. Comorbid conditions, including bronchiectasis, human immunodeficiency virus (HIV) infection, congestive heart failure, end-stage renal disease, diabetes mellitus, history of pneumonia, interstitial lung disease (ILD), and lung cancer, were collected based on ICD 9 and 10 codes. Comorbidities were included if they were diagnosed prior to the diagnosis of COPD. The Miami VA Institutional Review Board reviewed the protocol and approved this study.

RESULTS:
A total of 2,050,055 subjects with a diagnosis of COPD were identified. 4,725 of these subjects were found to have a superimposed pulmonary NTM infection, a period prevalence of 0.2%. Among the comorbidities that were queried, the odds of having pulmonary NTM in COPD subjects were highest in those subjects with bronchiectasis (OR 10.45), HIV (OR 7.80) and ILD (OR 3.91). The mortality was significantly increased among COPD subjects with superimposed NTM, compared to COPD subjects without NTM infections (53.9% COPD vs. 58.4% COPD + NTM, p<0.01).

CONCLUSION:
The prevalence of NTM in the cohort of COPD subjects seen at the VA was 0.2%. The odds of having pulmonary NTM in COPD subjects was 10 times higher among those with a previous diagnosis of bronchiectasis, compared to those without bronchiectasis. Mortality was significantly higher among COPD subjects with superimposed NTM infections, compared to those without NTM. Further studies are needed to evaluate the mechanisms that predispose subjects with bronchiectasis to have pulmonary NTM infections.
Abstract Title:
Population Health Opportunities For Graduate Medical Education In Miami

Abstract Text:
The US Healthcare system has been evolving at a rapid pace with the goal of providing access to quality care while curbing the increasing cost of medical care. After the passage of the Affordable Care Act, many private insurance organizations increased their attention to new incentives for population health. In order to achieve this, many physicians have modified their provision of care by using the “medical home” model. In this model, the role of the primary care physician (PCP) is to lead an interdisciplinary team of the patient’s providers as part of an integrated health care delivery system, while meeting the goals of population health. In August 2015, the University of Miami General Internal Medicine (GIM) Clinic launched a medical home model to support patients with Medicare Advantage (MA) plans. These patients gained access to medical home services and were assigned to care teams. Each care teams included: 3 PCPs, 1 advanced registered nurse practitioners (ARNP), and 4 internal medicine resident physicians. Medical home services entailed healthcare providers working closely together following patient progress, a nurse manager that was available for patient outreach, addressing health care performance measures and patient education, and increased availability for follow up visits with ARNPs. In order to quantitatively assess the effectiveness of this change, the outcomes of 5 parameters from the Healthcare Effectiveness Data and Information Set (HEDIS) were compared for the GIM patients in the MA plans versus all other clinic patients. Outcome parameters included: HbA1C, blood pressure, diabetic nephropathy screening, and diabetic retinal exam. HEDIS is widely used to measure performance on important dimensions of care and service. Using a feature of EPIC EMR, Healthy Planet, HEDIS data for all clinic patients since January 2015 was obtained. Thus far data has shown that patients in the MA plans showed significant improvement in all 5 parameters when compared to patients in all other plans (p <0.01). Diabetic patients in the MA plans more regularly received medical attention for nephropathy, 93%, had a comprehensive eye exam, 74.5%, versus other clinic patients at 74.7% and 41.7%, respectively. Additionally, diabetic patients in the MA plans were more regularly tested for A1C at 92% versus 70.7% with only 19% of them with A1C >9% compared to 40% in non MA plan patients. Preliminary data thus far shows that with a patient centered medical home, patients receive better quality care as evidenced by the improved HEDIS parameters. This has been supported by many studies in the past. A novel approach to this established model is having resident physicians as part of this team and evaluating their experience with the medical home model, which more accurately depicts the real world primary care setting.
Abstract Title: An Unusual Presentation Of Myocardial Infarction With Crucial Electrocardiogram Findings

Abstract Text: Introduction: Wellens’ syndrome, also known as left anterior descending (LAD) coronary T-wave syndrome is a pre-infarction syndrome with non-specific ischemic electrocardiogram (ECG) changes. This syndrome continues to carry significant diagnostic and prognostic value as delay in urgent angiography and intervention can result in anterior myocardial infarction. We describe a case followed by a discussion of identification criteria and clinical implications.

Case Description: A 64 year old female came to the emergency department (ED) for progressive jaw pain. The pain is intermittent, mildly relieved by acetaminophen and associated with exertion and relieved by rest. Two days prior patient had also experienced left arm pain that completely resolved. She denies any chest pain, diaphoresis, or shortness of breath. On the morning of presentation, jaw pain was progressive, therefore she decided to go immediately to the ED. She was asymptomatic upon her arrival. The patient denied any previous history of chest pain, hyperlipidemia, arrhythmia, or tobacco use. Her father died of myocardial infarction (MI) at the age of 50 and her three brothers have suffered myocardial infarctions by the age of 45. The patient was in no distress, except for some mild jaw pain and denied any current chest pain. Vital signs were temperature 98.5°F, pulse 89, blood pressure 150/89, respiration rate 19, and 97% oxygen saturation on room air. Examination revealed regular cardiac rate and rhythm with no extra heart sounds or murmurs, non-displaced PMI, no carotid bruits, +2 pedal pulses with no extremity edema, and clear lungs by auscultation. She was found to have a positive troponin of 0.1 and non-specific EKG changes. Follow up ECG revealed biphasic T waves in leads V2 and V3. The patient was taken for urgent cardiac catheterization which revealed severe multi-vessel disease including 99% stenosis of left anterior descending artery right after the first diagonal artery. Patient was subsequently taking for coronary artery bypass graft (CABG) surgery.

Discussion: Wellen’s syndrome was first described in 1982. A prospective study identified this syndrome in 14% of patients at presentation and 60% of patients within the first 24 hours. Criteria include a history of anginal chest pain, less than twice the upper limit of normal in cardiac serum markers, and biphasic or deeply inverted T waves in the precordial leads on an ECG obtained during a pain-free interval.

Conclusion: This patient presented with Wellen’s syndrome. This case highlights the need for timely identification of Wellen’s syndrome. Recognition and appropriate management of Wellen’s is imperative as 75% of non-revascularised patients will progress to acute anterior wall MIs within 1 week, if left untreated.
Abstract Text:
Case description
A 61-year-old gentleman with a history of well-controlled HIV, undetectable viral load presented with a perianal condyloma. He presented to the hospital repeatedly with similar lesions and was treated with local excisions and conventional anti-virals. Histopathological examination showed intranuclear lesions with no evidence of malignancy. Wide excision with biopsy was suggestive of chronic herpes virus infection (“herpes vegetans”).
Discussion
Herpes vegetans is a rare atypical presentations of HSV in immune compromised patients such as those with HIV infection. It presents as an exophytic, proliferative lesions that resembles either a verrucous or a malignant growth. HIV patients may experience more frequent and more severe recurrences of genital herpes. They are also more likely to be resistant to standard anti-herpetic agents like acyclovir. HSV infection in patients with immune suppression like HIV can also be atypical in morphology and present a diagnostic and theraupeutic challenge. The verrucous lesions of the ano-genital region have a wide differential it is important to look for subtle differences in clinical presentation and employ other diagnostic methods to arrive at a correct diagnosis. The differentials for herpes vegetans infection include pemphigus vegetans, tuberculous verrucous cutis, condyloma lata, pyoderma gangrenosum and malignancy.
Abstract Title:
A Rare Presentation Of Cat Scratch Disease In The Immunocompetent Adult

Abstract Text:
Cat Scratch Disease (CSD) is a self-limiting infectious disease caused by the bacteria, Bartonella henselae. This disease is characterized by tender lymphadenopathy and should be considered in patients with fever and lymphadenopathy. Although more commonly seen in children and young adults, cases have been described in the adult population.

We present a rare case of a 45-year old male presented to the emergency department for right groin pain, intermittent fevers and left clavicular pain with a palpable mass. The patient was noted to have multiple 1-2 cm tender right inguinal lymph nodes with no overlying erythema or purulence. High sensitivity CRP and ESR were noted to be elevated at 7.56 and 54, respectively. The patient then underwent CT of the abdomen and pelvis with IV contrast that revealed right inguinal lymphadenopathy and mesenteric stranding with multiple prominent mesenteric lymph nodes. Further infectious workup was negative for CMV, syphilis and HIV. Epstein-Barr virus titers and lactate dehydrogenase were mildly elevated at 64 and 250, respectively. Given concern for possible underlying malignancy, an excisional biopsy of a right inguinal lymph node was completed. The surgical pathology report was consistent with necrotizing granulomatous lymphadenitis and negative for malignancy with negative mycobacterial and fungal stains. Given prior negative workup and known exposure to a stray cats, B. henselae IgM and IgG titers were then ordered. Both, B. henselae IgM and IgG titers as well as cat scratch immunohistochemical stain of the surgical specimen resulted positive, confirming the diagnosis of CSD. Patient was discharged home after resolution of symptoms; no treatment was required.

Typically in CSD, lymphadenopathy develops proximal to the inoculation site. Both hepatic and splenic lesions are also often reported in children and rarely in adults. Upon an exhaustive literature review, two care reports were discovered describing mesenteric lymphadenitis as a presentation of CSD including a 2-year old girl and a 51-year old immunocompromised male. Rarely, this disease can present as disseminated disease with hepatosplenomegaly, meningoencephalitis, or bacillary angiomatosis in the case of AIDS patients. This case illustrates that mesenteric lymphadenitis can also be a rare presentation of Cat Scratch Disease in immunocompetent adults.
Abstract Title:
A Mortality Marker: Be Wary Of Troponin Elevations In Thrombotic Microangiopathy

Abstract Text:
Thrombotic microangiopathy (TMA) includes a group of syndromes that commonly cause microangiopathic hemolytic anemia (MAHA) and thrombocytopenia. Hemolytic uremic syndrome (HUS) and thrombotic thrombocytopenic purpura (TTP) are two subsets of TMA with overlapping features. There have been multiple retrospective studies and case reports demonstrating that cardiac involvement is a major cause of mortality in patients with thrombotic thrombocytopenic purpura. Cardiovascular manifestations include myocardial infarction, tachyarrhythmia, conduction disturbances, heart failure, cardiogenic shock and sudden cardiac death.

A 39 year old female presented with a one day history of chest pain and shortness of breath. The pain is mid sternal chest pressure that is non-radiating. Medical history includes uncomplicated vaginal delivery two weeks prior to presentation, HTN, patent foramen ovale s/p closure in 2011, seizure disorder, pituitary adenoma and DVT five years ago. Home medications include enoxaparin for DVT, Diltiazem for blood pressure control. She denied any illicit drug use, alcohol use or smoking history. Physical exam was consistent with normal findings. Laboratory data was significant for a troponin >5 NG/ML, hemoglobin 7.1 g/dL, platelets 18 x10E3/uL, creatinine 1.6 mg/dL. Haptoglobin was decreased to <8 MG/L and LDH was 1492 IU/L. Troponin peaked at 8.97 NG/ML and continued to downtrend throughout the admission. EKGs during the admission showed normal sinus rhythm without ST elevations or T wave inversion. She had evidence of schistocytes on peripheral smear. Echocardiography showed no wall motion abnormalities, normal systolic or diastolic dysfunction and EF 55-60%. ADAMTS13 was sent out and plasma exchange was initiated for thrombotic microangiopathy. Evaluation of coronary arteries with left heart catheterization was deferred secondary to thrombocytopenia and renal failure. She was eventually diagnosed with atypical HUS following failure of plasma exchange and ADAMTS13 level of 98%. She was successfully treated with eculizumab times 4 cycles with resolution of symptoms and hematologic abnormalities.

In addition to the triad of hemolytic anemia, thrombocytopenia and renal failure 20% of patients with HUS have extra renal involvement. Although the frequency of cardiac ischemia in HUS is unknown it is a common cause of mortality in TTP. In a study of post mortem patients with TTP 77% had cardiac small vessel thrombosis. Troponin I has been shown to be a great predictor of cardiac injury and cardiac collapse or sudden cardiac death in TTP and HUS patients. Given the high mortality still seen in patients with HUS and TTP and the demonstration of cardiac injury leading to death it may be clinically beneficial to routinely evaluate patients both TTP and HUS with troponin, EKG and telemetry; however, the optimal management of coronary thrombosis in this population is not well defined. Future study on the effect of treatments for thrombotic microangiopathies and mortality from cardiac complications is needed.
Abstract Title:
Rare Cases Of Neutropenic Diverticulitis

Abstract Text:
Abdominal pain can be a diagnostic challenge for physicians, with immunosuppressed patients posing unique challenges. Differential diagnoses for neutropenic patients who present with fever and gastrointestinal symptoms such as abdominal pain, diarrhea and rectal bleeding are suspected to have Clostridium difficile colitis or typhlitis. However, a third possibility, diverticulitis must be considered in the differential diagnosis when evaluating a neutropenic patient with lower quadrant abdominal pain. Diverticulitis is a common gastrointestinal disease, however, it is rarely described in patients with immunosuppression. Complications include perforation, abscess, sepsis and even death. Neutropenic diverticulitis is rarely reported in literature with only one other reported case to our knowledge. Having a higher index of suspicion for neutropenic diverticulitis may lead to earlier surgical intervention and improved outcomes. We present two cases of neutropenic diverticulitis in patients with prolonged neutropenia to help guide future diagnosis and treatment.
Primary CNS Lymphoma (PCNSL) is a rare variant of Non-Hodgkin lymphoma that occurs along the craniospinal axis. Though there is an inherent increase in the risk of lymphoma in patients with certain autoimmune disorders, less is written about the connection between immune modulating treatments for such disorders and the development of PCNSL. Below is the case of a patient with systemic sclerosis on chronic immunomodulatory therapy, who presented with multiple neurologic symptoms and ultimately was diagnosed with Primary CNS Lymphoma.

A 32-year old female with a past medical history of systemic sclerosis (SSc) presented with complaints of dizziness, headache, unsteady gait, vision loss and speech changes. The patient was diagnosed with SSc 6 years ago, and had been treated with Cellcept (mycophenolate mofetil) for roughly 5 years. On admission to the hospital, vital signs were within normal limits. Physical exam revealed tightening around the mouth and bilateral upper extremities, multiple telangiectasias of the face and distal hand clubbing. A non-contrast CT of the brain revealed right posterior parietal vasogenic edema with moderate mass effect compressing the adjacent right lateral ventricle. The brain mass was resected and pathology with immunohistochemical staining revealed CD 30+, CD 20+, BCL-6 +, BCL-2 +, EBV+ cells consistent with diffuse large B-Cell lymphoma.

The patient was started on a modified DeAngelis protocol that included high dose methotrexate, vincristine and rituximab for 4 cycles followed by consolidation with whole brain radiation. MRI of brain following chemotherapy showed no residual disease suggesting complete-response.

There are several studies suggesting a link between immunosuppressive therapies and the development of lymphoproliferative disease. A recent meta-analysis published in Cancer Epidemiology explores several cases of patients with autoimmune disorders treated with MMF who subsequently developed primary CNS lymphoma. There are several theories as to why MMF use would lead to CNS malignancy. One theory is that the state of immunosuppression induced by MMF leads to increased susceptibility to infection, namely, EBV infection. EBV infection is theorized to accelerate malignant processes in extranodal regions such as the CNS.

In conclusion, it is important to recognize that the use of immunosuppressive medications like MMF can lead to increased likelihood of CNS malignancy. Thus, a better understanding of the side effects of immunosuppressive agents is imperative for safe long-term therapy.
A common presentation of vitamin B12 deficiency includes macrocytic anemia and neurologic symptoms. We describe a case of a 22 year-old woman with progressive neuropsychiatric symptoms over an 8-month period who was initially misdiagnosed and treated for vitamin B12 deficiency. Ultimately, genetic testing revealed Cobalamin E (CblE) deficiency, a rare inborn error of cobalamin metabolism which usually presents in newborns as failure to thrive.

Case Description:
A 22 year-old woman with known mild cognitive delay attributed to hypoxia as an infant presented with progressive cognitive decline, hyperphagia, and regressive behavior over an 8-month period. She was living independently until then, at which time she was diagnosed with pernicious anemia and hypothyroidism. Despite cyanocobalamin and levothyroxine adherence, her symptoms worsened. Upon presentation, she was only oriented to person and was laughing inappropriately between episodes of blank stares. Physical examination included a wide-based gait, atrophic glossitis, and one witnessed episode of brief cyanosis with emesis. She scored 6/30 on the Montreal Cognitive Assessment (MOCA), consistent with severe delay. Initial laboratory studies revealed a hemoglobin of 11.2 g/dL with a mean corpuscular volume of 135 femtoliters. RBC folate, cobalamin, and methylmalonic acid levels returned within normal limits, but homocysteine was elevated at 124 umol/L. Peripheral smear demonstrated hypersegmented neutrophils. As her megaloblastic anemia was not explained by normal B12 and folate levels, an extensive altered mental status workup was undertaken. TSH was unremarkable. MRI brain showed confluent increased T2 and FLAIR signals in the periventricular white matter disproportionate to age. Electroencephalogram revealed mild-moderate diffuse encephalopathy. Workup returned negative for drug abuse, autoimmune diseases, neurodegenerative disease, and paraneoplastic etiologies. Hematology then recommended a genetics workup. Serum organic acid testing returned with low-normal plasma methionine and elevated free homocysteine. Homocysteinuria NextGen sequencing revealed two MTRR gene mutations known to cause CblE deficiency. She was started on hydroxocobalamin, betaine, and folate with resolution of cyanotic episodes, improved hyperphagia, and increase in MOCA score to 13/30. However, she continued to require 24-hour care.

Discussion:
CblE Deficiency, an autosomal recessive disease of impaired methionine synthase, comprises less than 5% of disorders of intracellular cobalamin metabolism. Median age of presentation is 4 weeks old, but patients can present with a late-onset in young adulthood. Treatment is focused on supplementing hydroxocobalamin, a precursor to cyanocobalamin, and betaine. Prognosis for patients with a late-onset varies after initiation of appropriate treatment. Our case highlights that young adults who present with macrocytic anemia and neurologic changes despite normal B12 levels or appropriate supplementation can still have a disorder in cobalamin metabolism, and this should be included in the differential for altered mental status. With enough clinical suspicion, internists should screen for inborn errors of cobalamin metabolism with the help of genetics specialists.
Medical Student Poster Judging Presentations

Florida Atlantic University Charles E. Schmidt College of Medicine

- **Exposure To Potential Drug-Drug Interactions In High-Risk Older Patients On Admission And Discharge From An Acute Hospitalization**  
  Aaron Fletcher Osborne, MS III
- **Takotsubo Cardiomyopathy Could Lead To Truly A “Broken Heart”**  
  Lauren Vaughan, MSIV
- **Association Of Anxiety Medication Use And Falls In A Diverse Older Adult Population**  
  Lena Vaynberg, MS III

Florida International University Herbert Wertheim College of Medicine

- **Respiratory Rate Variability As A Prognostic Factor In Hospitalized Patients Transferred To The ICU**  
  Daniel Francisco Garrido, MS III

Lake Erie College of Osteopathic Medicine - Bradenton

- **Breast Implant-Associated Anaplastic Large Cell Lymphoma: A Case Report Demonstrating The Efficacy Of Brentuximab Vedotin**  
  Anthony C. Stack, OMS III

Nova Southeastern University College of Osteopathic Medicine

- **Compartment Syndrome Due To Hypothyroidism**  
  Shantanu Baghel, MS III
- **C3 Glomerulonephritis: A Unique Correlation With Kartagener Syndrome**  
  Kimberly Baran, OMS III
- **Perforated Jejunal Diverticulitis Presenting As Acute Abdomen**  
  Hiba Bilal, OMS III

University of Central Florida College of Medicine

- **Estimating Geographical Distribution Of Basal Cell Carcinoma Through Online Search Queries**  
  Anand Desai, MS III
- **Evaluation Of The Effect Of Equine-Assisted Learning And Therapy On Medical Student Stress And Depression**  
  Amanda Gonzalez, MS III
- **Diabetes Duration Moderates The Association Between Numeracy And Diet Self-Care.**  
  Mariya Kristeva, MS II

University of Miami Miller School of Medicine

- **Hyperglycemia And Dyslipidemia Of Isabela, Galápagos, Ecuador**  
  Abigail L Alexander, MS III
- **Medical Residents’ Knowledge And Perception Of HIV Prevention Strategies**  
  Misha Armstrong, MS II
- **Tracking The Epidemic - Zika Virus In The Pregnant Patient: The Miami Experience**  
  Meghan Lardy, MS III
University of South Florida Morsani College of Medicine

- An Atypical Cause Of Shoulder Pain In A Male Ballet Dancer
  Mark Bender, MS III
- Cunninghamella As A Cause Of Sudden Paraplegia In An Immunocompromised Patient
  Danielle Grams, MS IV
- Assessing Burden Of Chronic Disease Among Homeless Patients At USF Tampa Bay Street Medicine’s Well Clinic
  Abby Pribish, MS III
Abstract Title:
Exposure To Potential Drug-Drug Interactions In High-Risk Older Patients On Admission And Discharge From An Acute Hospitalization

Abstract Text:

Introduction
The increased complexity of chronic care for older patients has led to polypharmacy and the use of potentially inappropriate medications. This can contribute to adverse drug reactions, drug-drug interactions, and a variety of complications including cognitive impairment, falls, hospitalization, and even death [1]. The objective of this study was to explore the occurrence of potential drug-drug interactions (PDDI) in hospitalized geriatric patients identified as being at high-risk for hospital readmission and other patient safety complications.

Methods
The data were obtained from high-risk patients admitted consecutively to Boca Raton Regional Hospital. The admission medication reconciliation and discharge medication reconciliation for each patient were separately analyzed using the Lexi-Interact® database. The Lexi-Interact® database identifies potential drug-drug interactions (PDDI) and places them into three clinically significant categories: “X” - avoid combination, “D” - consider therapy modification, and “C” - monitor therapy. Topical and ophthalmic medications were excluded from the study and routine versus PRN was not taken into consideration.

Results
The study included 100 participants with a mean age of 85.5 ± 6.1 years (range 75 – 101), and mostly comprised of women (59%). The average number of medications prescribed at admission 8.3 ± 3.9 was lower than the number of medications prescribed at discharge 9.6 ± 3.6. Each patient was admitted with an average of 7.25 clinically significant potential drug-drug interactions and was discharged with an average of 8.54. Ninety-one patients (91%) had at least one clinically significant PDDI on admission and 95 patients (95%) had at least one clinically significant PDDI on discharge. Seventeen patients (17%) were found to have at least one X interaction on both admission and discharge. Fourteen patients were classified as having more X interactions on discharge compared to admission (p .000), 27 patients had more D interactions on discharge compared to admission (p .000), and 29 patients had more C interactions on discharge compared to admission (p .000).

Conclusions
The results of this study demonstrate a high prevalence of PDDI in high-risk geriatric patients admitted to the hospital, with the number of PDDI increasing from admission to discharge. This data emphasize the need for clinicians to pay more attention to PDDI, and for quality improvement interventions to reduce the potential for clinically significant PDDIs in the hospital as well as after discharge in older high-risk patients.

Takotsubo cardiomyopathy, also called apical ballooning syndrome and stress cardiomyopathy, is a syndrome characterized by transient left ventricular systolic dysfunction. Onset and clinical manifestation mimic that of an acute myocardial infarction, including sudden chest pain, dyspnea, electrocardiography changes and mildly elevated cardiac enzymes, but without significant coronary artery occlusion on angiography. Approach to management is conservative, as the disorder is classically considered self-limiting with symptomatic resolution and reversal of the hallmark left ventricular dysfunction within weeks. Despite the good prognosis, complications include heart failure, thrombus formation, arrhythmia and cardiogenic shock. Severe mechanical complications, such as VSD and wall rupture have been described, but are rare.

A 78-year-old female with significant past medical history of coronary artery disease status post multi-vessel sent placement presented urgently to the hospital with chest pain and dyspnea. Initial evaluation including EKG and cardiac enzymes were consistent with acute anterior wall MI and the patient was immediately taken for coronary angiography. Angiography demonstrated patency of the coronary arteries and stents, but left ventriculography revealed ventricular motion abnormality with apical ballooning akinesis. She was subsequently diagnosed with Takotsubo cardiomyopathy and was admitted to the intensive care unit for further monitoring. She was treated with diuretics and placed on a nitroglycerine drip with improvement of her chest pain. The next day the patient was doing well and remained hemodynamically stable without arrhythmias on telemetry. She did complain of mild chest discomfort, particularly upon palpation, but was not in acute distress. EKG indicated persistent ST-segment elevations in leads V3-V6. Around 48 hours after admission, EKG continued to show ST elevations and the patient acutely decompensated becoming hemodynamically unstable. She developed sudden respiratory insufficiency that persisted despite administration of Lasix ultimately requiring intubation and mechanical ventilation. She became increasingly unstable and profoundly hypotensive requiring high does pressor support. A bedside echocardiogram revealed the previously seen apical akinesis with new acute ventricular septal defect and circumferential pericardial effusion secondary to mechanical wall rupture. The family decided that they did not want any invasive measures and hospice was consulted. The patient was ultimately withdrawn from the ventilator and passed away.

Patients with Takotsubo cardiomyopathy present with the typical symptomatology and EKG features of an acute ST-segment elevation MI. Apart from sharing similar clinical presentations, similar life threatening mechanical complications have been described in both, including VSD and wall rupture. Despite being considered a benign condition with a favorable prognosis, patients with Takotsubo should be closely monitored in a manner similar to acute MI patients with serial EKGs and echocardiograms because of the possibility of similar serious mechanical complications.
Abstract Title:
Association Of Anxiety Medication Use And Falls In A Diverse Older Adult Population

Abstract Text:
INTRODUCTION: Anxiety is common among older adults and medications used to treat it have adverse effects. Some studies have examined the association between anxiety medications (AMs) and falls, but there are few that have been carried out in a diverse sample of relatively community dwelling older people. The purpose of this study was to explore the association between self-reported AM use and falls in four ethnic groups. We hypothesized that AMs would be associated with falls, but the relationship would not differ by ethnicity.

METHODS: Data were gathered from a multi-ethnic group of 541 volunteers living in South Florida who were age 60+, MMSE score of 23 or higher, able to ambulate independently or with minimal assistance, and ability to complete the interviews in English, Spanish, or Creole. AM use was defined as self-report of regularly taking medications for anxiety, and falls were defined as self-report of falling in the past two years. Pearson’s χ² test was used to examine associations of anxiety medication use and falls.

RESULTS: Afro Caribbeans had the lowest prevalence of AM use (5/125(4%); p=0.004) compared to European Americans (23/164(14%)), Hispanics (15/208(14%)), and African Americans (10/91(11%)). Among all participants using AMs (N=52), 59.6% (31/52) reported one or more falls in the past two years; compared to 28.8% (152/488) of those not using AMs. This association was found in each of the 4 ethnic groups.

CONCLUSION: In this multi-ethnic convenience sample of older adults, AM use was more common among European American than the other three ethnic groups. There was a significant association between AM use and falls in all ethnic groups. The data are limited by the relatively small sample of participants who reported AM use and falling, limiting examinations of confounders of this association. These findings add data to the existing literature on the potentially injurious effects of AMs in older adults. Studies of larger diverse populations are needed to confirm these findings.
Abstract Title:
Respiratory Rate Variability As A Prognostic Factor In Hospitalized Patients Transferred To The ICU

Abstract Text:
Introduction: Although variations within the normal limits of an individual’s respiratory rate provides clinical insight into overall health, variations in respiratory rate measurements, or respiratory rate variability (RRV), are less understood. RRV is often altered in different chronic conditions (i.e. heart failure, sleep apnea, COPD) and during periods of critical illness, potentially indicating an underlying pathological process. However, despite its use as a clinical tool to monitor patient health in an acute critical care setting, the usefulness of continuous monitoring of RRV has not been completely studied. Alterations in RRV could provide predictive information on a patient’s prognosis, ultimately influencing early treatment and management in the intensive care unit (ICU). Accordingly, the aim of the present study was to assess the relationship between RRV and prognosis in hospitalized patients 48 hours prior to admission to the ICU.

Methods: In this observational retrospective chart review, we analyzed 50 (F=28) patients within the inpatient setting for at least 48 hours prior to being transferred to the ICU. A patient transferred from the regular internal medicine floor to the ICU setting was considered as an indicator of a worsening prognosis. Inclusion criteria for this study were admittance to the inpatient setting for 48 hours before admission to the ICU, as well as 8 sets of vital signs taken every 6 hours over that period hour period. Trauma, post-surgical, and cancer patients were excluded for the study. Pairs of respiratory rates measurements were paired to calculate the coefficient of variation (CV%) as a surrogate of RRV. The four pairs of RRV were then analyzed for changes in CV% over time by means of ANOVA with repeated measures to establish if there was any statistically significant change.

Results: Subjects characteristics were (M ± SD) age (58.1 ± 7.1 years) and BMI (27.6 ± 12.2 kg/m2). There was a significant (p < 0.009) increase in RRV between the third and fourth set of respiratory rates prior to ICU admission such that CV% increased from 0.3% (95%CI .09-.42) to 0.7% (95%CI .04-.9) about 12 hours before admission to the ICU independent from diagnosis. We did not find any significant difference between genders or between respiratory diseases and other medical conditions.

Conclusion: These data suggest that an increase in RRV could be indicative of a worsening prognosis in patients within the inpatient setting. Limitations of this study include small sample size and only internal medicine floor patients. However, the RRV changes and worsening prognosis regardless the diagnosis may provide an avenue to investigate the role of RRV on specific patient diagnoses. Prospective studies aimed at understanding the clinical value of RRV in the hospital setting are warranted.
Abstract Title: 
Breast Implant-Associated Anaplastic Large Cell Lymphoma: A Case Report Demonstrating The Efficacy Of Brentuximab Vedotin

Abstract Text: 
Introduction
In 2016, the World Health Organization provisionally recognized the pathological entity of “breast implant-associated anaplastic large cell lymphoma” (BI-ALCL), in light of numerous case reports that have emerged over the last decade. Despite approximately 134 cases having been reported in the literature between 1997 and 2016, the pathogenesis, staging criteria and optimal clinical management of this disease have yet to be elucidated. Here we present an advanced case of BI-ALCL in a 73-year-old women and discuss the novel use of brentuximab vedotin (BV) as part of her treatment. To our knowledge, this is the first use of BV in the management of BI-ALCL. Our purpose is to provide an updated literature review of BI-ALCL and to help define the use of brentuximab vedotin in advanced stage disease.

Case Description
A 73-year-old Colombian women presented with one month of progressive pain and swelling in her right breast. She had a history of right breast cancer sixteen years’ prior, which had been treated with lumpectomy and chemoradiation, followed by bilateral silicone breast implant placement. MRI showed a complex effusion within the implant capsule, as well as a mass-like enhancement that invaded both the chest wall and pleura. A core needle biopsy confirmed the diagnosis of ALK-negative, CD30-positive anaplastic large cell lymphoma and she subsequently underwent bilateral breast prosthesis explantation. Staging CT scans showed right supraclavicular lymphadenopathy and thoracentesis was performed for a pleural effusion that was negative for malignancy. A bone marrow biopsy was negative for ALCL, but incidentally positive for a kappa clonal plasma cell population comprising 20% of the cellularity. The patient underwent palliative radiation therapy for persistent breast pain, and was later discharged for outpatient follow-up. Her case was presented to a tumor board, and she subsequently began monotherapy with BV due to her history of prior chemotherapy. PET/CT scanning after her fifth cycle showed that the chest wall mass and supraclavicular adenopathy had resolved, and a large seroma had formed in the anterior chest wall. Four months later, she continues treatment with BV and follow-up PET/CT scanning demonstrates that the patient remains in complete remission.

Discussion
BI-ALCL is a very rare entity, with an estimated annual incidence of 0.1 to 0.3 per 100,000 women with breast implants. It represents an exclusively T cell lymphoma, which is characteristically CD30-positive and ALK-negative. While the pathogenesis remains unknown, several mechanisms have been proposed, all involving inflammation as the primary driver. While a surgical approach has been advocated for localized disease, various combinations of chemotherapy and radiation have been attempted for advanced or recurrent BI-ALCL. This patient demonstrates a strong response to treatment with BV, and clinical trials are needed to further characterize its use for this disease.
Abstract Title:
Compartment Syndrome Due To Hypothyroidism

Abstract Text:
Introduction: Compartment syndrome is a surgical emergency, requiring quick diagnosis and treatment. Unrecognized, it can lead to neuropathy, tissue necrosis, kidney failure, and limb loss. It is typically secondary to trauma, vascular injury in an enclosed muscle compartment, or external restriction. Here, we report a case of compartment syndrome secondary to severe hypothyroidism.

Case Description: The patient is a 52-year-old Caucasian female who presented to a community hospital with complaints of severe burning pain in her right great toe extending up to her knee with associated foot drop and paraplegia that began two days earlier. She also complained of a recent 10lb unintentional weight gain over the previous month with associated lethargy and fatigue. She denied any recent trauma involving her right leg or right foot. Her past medical history consisted of type 1 diabetes mellitus and hypertension. On admission, her blood pressure was 153/79, pulse was 78, respirations were 20, and temperature was 97.6. Her BMI was 25.6. A plain radiograph of the right tibia/fibula revealed no fracture, but an MRI of the lumbar spine showed a small posterior disc herniation of the L5-S1 area. Some redness was seen in the right lower extremity which was thought to be cellulitis, however, the extremity was very tense and tender with no warmth and a nonpalpable pulse. No thyromegaly was noted, but her TSH was checked and found to be >100 with free T4 0.13 and total T3 < 0.195. Her thyroid peroxidase, thyroglobulin, and anti-thyroxine profiles were all negative. Additional labs revealed hyponatremia with a serum sodium of 131. Her condition began to steadily worsen and she developed bilateral footdrop. Repeat labs revealed a markedly elevated CK >19000 consistent with rhabdomyolysis. She was diagnosed with bilateral lower extremity compartment syndrome secondary to severe hypothyroidism. She was then urgently brought to the emergency room for bilateral anterior compartment fasciotomy where anterior compartment muscle fibers were found to be black and necrotic, with intact and bleeding muscles in the other compartments. In the left leg, the anterior muscles were found to be gray. She was started on 50 levothyroxine, which was then increased to 100 levothyroxine daily. After several days, her serum TSH improved to 5.49 and her serum T3 stabilized to a normal value of 1.07. The patient was discharged in stable condition on 300 levothyroxine.

Discussion: Although rare, prior cases of compartment syndrome secondary to hypothyroidism have been reported. This patient presented with an atraumatic cause of compartment syndrome, however her clinical picture was very suspicious for hypothyroidism. Clinicians should suspect hypothyroid in patients with otherwise unknown etiologies of compartment syndrome, or be aware of another potential complication of untreated hypothyroidism.
C3 Glomerulonephritis: A Unique Correlation With Kartagener Syndrome

Introduction: C3 glomerulonephritis (C3GN) is a very rare form of membranoproliferative glomerulonephritis that was first described in 2007. It results from the abnormal activation and control of the complement pathway and causes the deposition of its products, notably C3, along the capillary walls and the mesangium of glomeruli. This is thought to be due to autoantibodies against complement regulating proteins.

Case Presentation: I present a case of a 36 year-old female with an extensive past medical history including Kartagener Syndrome (situs inversus, bronchiectasis, chronic sinusitis) and mixed picture ANCA-related/post-infectious glomerulonephritis diagnosed in 2011. The patient had also recently finished a course of IV antibiotics for an upper respiratory infection. She had routine labs done per her nephrologist, of which came back significant for a hemoglobin level of 7.0 g/dL and a creatinine of 2.1 mg/dL, more than double her baseline creatinine level. She was also symptomatic for anemia, so she was admitted to Boca Raton Regional Hospital for management and further work up.

Additional labs in the hospital revealed proteinuria and hematuria, along with a newly negative c-ANCA and low serum complement C3 and C4 levels. Due to her sharp decline in kidney function and her prior history of glomerulonephritis, a renal biopsy was performed. The biopsy showed mesangial and endocapillary hypercellularity with cellular crescents and C3-dominant glomerular deposits, including subepithelial humps. This was suggestive of a new diagnosis – C3 glomerulonephritis. This diagnosis was supported by testing done by the University of Iowa which found that the patient had elevated levels of C3 and C4 nephritic factors.

These are autoantibodies against the complement regulating protein C3 convertase. The patient was treated with rituximab and a heavy steroid course and has since been doing well. She is followed regularly by her nephrologist and as of early November 2016, her kidney function had returned to her baseline.

Discussion: An interesting characteristic of this particular case of C3 glomerulonephritis is its correlation with the patient’s Kartagener Syndrome. It appears as though the patient’s frequent respiratory infections seem to coincide with, and possibly set off, exacerbations of the patient’s glomerulonephritis. All in all, this appears to be the first ever reported case of someone with both Kartagener Syndrome and complement dysregulation causing C3 glomerulonephritis.
Abstract Title:
Perforated Jejunal Diverticulitis Presenting As Acute Abdomen

Abstract Text:
Introduction: Small intestine diverticular disease is a rare entity. When they are found they are most prevalent in the duodenum. Jejunal diverticula have a prevalence of 1 to 2 percent of patients in autopsy series (De Peuter et al. 2009). In this case report we discuss perforated jejunal diverticulitis as a rare cause of acute abdomen.

Case Summary: We present a case report of a 80-year-old male who presented to the ER with a 12 hour history of severe lower abdominal pain which started while he was golfing. The pain continued to intensify and was accompanied with nausea & vomiting. He denied trauma to region, recent travel, sick contacts, weight loss or abnormal diet. Family history was negative for gastrointestinal malignancies. Past surgical history was significant for open hernia repair and left shoulder rotator cuff surgery.

On examination patient was in severe pain unaffected by increased pain medications. His abdomen was firm, with positive rebound and guarding. Exquisite tenderness to palpation was noted in the periumbilical region consistent with peritonitis. His WBC count was 17.2, lactic acid of 2.2. Patient was afebrile and his vital signs were within normal limits. CT scan of the abdomen showed a severe inflammatory process in the left abdomen associated with bowel, although uncertain whether large bowel or small bowel origin which appeared to represent intraabdominal abscess.

Patient was taken for emergency laparotomy where multiple jejunal diverticulum were found with perforated diverticulum with abscess and inflammation found approximately 22 cm distal to the ligament of Treitz. Small bowel resection with anastomosis was completed. Patient did well postoperatively and was discharged 5 days after surgery.

Discussion:
Diverticula are protrusions of bowel wall that can occur throughout the small and large bowel. Small intestine diverticula are significantly less common than colonic diverticula and thus are often overlooked as a differential diagnosis. Clinicians must maintain a high index of suspicion to avoid missing small intestinal diverticulitis, especially in those patients who have developed complications such as perforation. Acute abdomen presentation especially when associated with anemia and/or jejunal loop dilation should increase the clinician’s suspicion for small bowel diverticulosis. Causes of jejunal diverticula are unclear however they have been found to be associated with disorders of intestinal motility as well as some degree of heritability. Abnormalities in peristalsis, high intraluminal pressure as well as intestinal dyskinesia are all processes that are implicated in the development of jejunal diverticula. (Milovac, 2015)
Abstract Title:
Estimating Geographical Distribution Of Basal Cell Carcinoma Through Online Search Queries

Abstract Text:
Introduction: Basal cell carcinoma (BCC) is the most prevalent human malignancy and can cause significant morbidity. However, as BCCs are not required to be reported, details regarding their epidemiology remain limited. While studies have examined BCC epidemiology on a national or international scale, a literature review revealed no information regarding BCC distribution by state within America.

Google Trends (GT) is an online tool used to examine Relative Search Frequency (RSF), on a scale from 0-100, of Google searches for selected terms by time and location. Due to the environmental dependence of many dermatologic diseases, GT has the potential to examine the impact of location on dermatologic disease. As BCC epidemiology within America is largely understudied, we plan to use GT to provide preliminary insight into BCC distribution within the United States.

Methods: GT was used to examine search queries from over one trillion Google searches each year over the past three years. Frequencies of searches for “basal cell carcinoma” by state were compared to gain insight into interest in BCC by state. Differences between groups were analyzed using ANOVAs and Bonferonni post-hoc t-tests.

Results: Mean RSFs varied significantly between states \([F(34,1471)=22.57, p<.05]\). RSFs were highest in North Dakota \((M=71.34\pm14.19)\), West Virginia \((M=65.29\pm13.41)\), Maine \((M=56.03 \pm 14.37)\) and Rhode Island \((M=52.37\pm6.77)\). North Dakota’s RSF did not significantly differ (post-hoc p values>.05) from the other top 3 states. However, the RSF in these 4 states significantly differed (post-hoc p-values<.05) from other states with lower mean RSFs, including the 4 states with the lowest mean RSFs: California \((M=24.97\pm16.10)\), New York \((24.34\pm7.51)\), Texas \((M=24.34\pm26.98)\), and Oregon \((17.69\pm9.44)\).

Discussion: Due to the potential detrimental effects of BCC, identification of high risk areas is essential, and search interest could potentially serve as a proxy for BCC prevalence. However, the variable search interest in BCC could have multiple etiologies such as sun exposure or education level, suggesting the need for further research. As BCC is not always reported and current strategies focused on gaining insight into BCC epidemiology can be tedious, further analysis of the predictive power of tools such as GT may provide rapid insight into the geographic distribution of BCC. Emphasis on patient education and screening in high risk areas may prove to decrease BCC morbidity and mortality.
**Abstract Title:**
Evaluation Of The Effect Of Equine-Assisted Learning And Therapy On Medical Student Stress And Depression

**Abstract Text:**
Problem Statement: Studies have shown that medical students experience heightened levels of stress and depression during medical school.1,2 Additionally, when students begin working with patients, their bedside manner is often lacking empathetic usage of nonverbal communication and body language while delivering critical health information to their patients. Dr. Beverly Kane from Stanford School of Medicine has developed an equine assisted learning and therapy program titled “Medicine and Horsemanship” (M&H)3. M&H is offered as an elective course at a few American medical schools to help medical students improve their interpersonal skills while also experiencing the benefits of equine therapy.3 At the University of Central Florida College of Medicine (UCF COM), this project aimed to investigate the potential benefits of the M&H course on medical students’ perceived levels of stress and depression.

Approach: From 2013 through 2015, across three separate groups, forty-two first year medical students have participated in the M&H program at the University of Central Florida College of Medicine (n= 23 controls, non-M&H participants). M&H participants completed the Beck Depression Inventory II (BDI-II), Perceived Stress Scale (PSS), and Evaluations of Stress Factors (ESF) during the week prior to beginning and the week after completing the M&H program. They also answered six open-ended questions about their experience in the M&H course and participated in group discussions after each M&H session. Non-M&H participants did not participate in the course, but they also completed the three inventories. For the purpose of this study, quantitative data across three years was combined for analysis.

Lessons Learned: Dependent sample T-tests were conducted separately for the BDI-II, PSS, and ESF for the M&H participants and for the non-M&H participants. The M&H participants showed a significant decrease in their levels of depression and stress: depression (BDI-II, p<.05) and stress (PSS and ESF, p < .05).

Significance: The high prevalence of stress and depression in medical students raises the need for medical school curriculums to include more strategies to improve their students’ mental health. The results from this project suggest that the M&H course can have a significant positive impact on medical students’ wellbeing by engaging them in activities that have the added benefit of expanding their communication skills.

References:
Abstract Title:
Diabetes Duration Moderates The Association Between Numeracy And Diet Self-Care.

Abstract Text:
People with type 2 diabetes (T2DM) must perform self-care behaviors, including eating a healthy diet, to achieve glycemic control. Health literacy and numeracy skills reflect one’s ability to understand and apply health information and numbers, respectively. Low health literacy and numeracy skills have been consistently associated with having less diabetes knowledge, with mixed associations with self-care behaviors. Of the studies that have found a relationship between health literacy and/or numeracy skills and self-care, moderation by patient characteristics has been limited. Therefore, we examined the relationship between health literacy, numeracy, and diet self-care, and explored moderation by duration of diabetes diagnosis.

We analyzed cross-sectional data collected from adults with T2DM recruited for a medication adherence promotion trial at an academic medical center in Nashville, TN. At baseline, we collected demographic and clinical characteristics, and administered the Brief Health Literacy Screen (BHLS), Subjective Numeracy Scale (SNS), and the Summary of Diabetes Self-care Activities (SDSCA) general diet subscale. A series of multiple regression models examined the relationships between health literacy and general diet, and, separately, numeracy and general diet, and then effect modification by duration of diabetes. To avoid potential multicollinearity, continuous variables were mean-centered and we created interaction terms between health literacy and diabetes duration, and numeracy and diabetes duration.

Participants (n=151) were, on average, 55.3±10.9 years old, 59% female, and 76.2% White. Average education was 15.2±1.9 years, with 26% having incomes <$40K. Average years since being diagnosed with T2DM was 9.9±7.3 years. Participants scored 14.1±1.3 on the BHLS (range 9-15), 36.1±8.2 on the SNS (range 8-48), and 4.2±1.9 on the SDSCA general diet subscale (range 0-7). In adjusted regression models, health literacy was not associated with general diet (B=.15, p=.073); however better numeracy scores were associated with better general diet self-care (B=.34, p<0.001). Moreover, diabetes duration moderated the relationship between numeracy and general diet (R2=.13, F (3,146) =9.23, p<.001). Examination of the interaction plot showed an enhancing effect, such that as numeracy and duration of diabetes increased, diet adherence increased. At low numeracy, diet adherence was similar for people with short, average, and long duration of diabetes. People with high numeracy and longer duration of diabetes, had the best diet adherence.

In a sample of adults with T2DM, we found better numeracy scores were associated with better adherence to general diet recommendations, and that diabetes duration moderated this relationship. The cross-sectional nature of our data limits the ability to make causal conclusions, and our findings may not generalize to other patients. Future research should explore how limited numeracy skills affect patients’ self-care and health outcomes overtime, and whether increased quantity of diabetes education and more opportunities to reinforce previously learned behaviors is a mechanism underlying the role of diabetes duration.
Abstract Title:
Hyperglycemia And Dyslipidemia Of Isabela, Galápagos, Ecuador

Abstract Text:
The Galápagos Islands are underserved from a human health standpoint. Although the islands are inhabited by some of the most unique species in the world, some of which even inspired Darwin’s Theory of Evolution, the exact needs of the human population are largely unknown. There is a dearth of data available for evidence-based interventions. Human health problems put stress on the entire system and can detract from ecological conservation efforts. This work was designed to address that deficit in regards to cardiovascular health. The aim was to evaluate the prevalence of hyperglycemia and dyslipidemia in the population of Isabela, Galápagos, Ecuador, across gender, age (above or below 40) and diabetes status. The project was based on secondary data acquired from a population-based retrospective cross-sectional study by International Outreach Initiative Galapagos and their collaboration with the Ministry of Health among individuals in Isabela, Galápagos, Ecuador. Demographic and metabolic factors were evaluated based on American Heart Association (AHA) 2013 Global Guidelines. The population overall exceeded the AHA guidelines for cardiovascular health. As to be expected, there was significance in the trend of increasing dyslipidemia and hyperglycemia with age except postprandial glucose. In those individuals below the age of 40, 7.3%, 43% and 45% had hyperglycemia, hypercholesterolemia and hypertriglyceridemia, respectively. However, in those above 40, they measured 35.1%, 58.6% and 50.6% respectively, showing a significant increase. Hyperglycemia and dyslipidemia appear to be prevalent in Isabela, Galápagos, Ecuador and this pilot study supports further research into metabolic syndrome and diabetes. Such data may help in healthcare planning and screening to ensure not only timely diagnosis, but prevention. As shown by the data, these syndromes present later in life, so individuals below 40 should be targeted for an intervention before the diseases can manifest.
Abstract Title:
Medical Residents’ Knowledge And Perception Of HIV Prevention Strategies

Abstract Text:
Problem:
The CDC estimates that nearly 1 million people could benefit from Pre-Exposure Prophylaxis (PrEP). Physician awareness of available biomedical HIV prevention strategies is critical to their effective implementation. It is important to understand primary care residents’ perceptions of HIV prevention strategies, as primary care providers are critical access points to biomedical prevention options for HIV negative patients at increased risk for infection.

Methods:
Knowledge-based multiple-choice questions regarding PrEP, PEP, and HIV epidemiology as well as Likert scale attitudinal questions were included in a paper-based survey offered to Internal Medicine, Obstetrics and Gynecology, and Medicine/Pediatric residents at a large University-based hospital system in Miami.

Results:
43 residents completed the survey. 93% had never prescribed PrEP or nPEP. Most residents (62.8%) described their HIV prevention education thus far as “somewhat adequate” and 74.4% felt this knowledge was “very important” to their future practice. The majority of participants were taught about counseling regarding sexual behaviors (95.3%), consistent condom use (81.4%), and treatment of HIV (79.1%) in their formal medical training. Despite only 16.3% being taught about PrEP, 86.1% were willing to recommend PrEP. Of note, 23.3% of residents did not know who to contact in case of a needle stick injury.

Conclusion and Future Research:
The majority of residents in primary care specialties hold positive attitudes toward PrEP despite having never prescribed the medication or received formal education. A lack of consistent education regarding biomedical prevention strategies is noted. A major barrier to care stems from a lack of education regarding medication based prevention strategies. Provider education is necessary to increase access to PrEP and improve the accuracy of conversations regarding HIV prevention. Additional participants should be recruited to assess the knowledge of residents in other primary care specialties such as family medicine and pediatrics.
Abstract Title:
Tracking The Epidemic - Zika Virus In The Pregnant Patient: The Miami Experience

Abstract Text:
Introduction: Zika virus infection during pregnancy is a global health concern. Faced with the recent onset of local transmission, obstetricians in the greater Miami area are challenged to provide care to both pregnant women with Zika virus infection acquired via local transmission within the United States as well as those presenting with infections from endemic countries. This study aims to contribute data on the characteristics of Zika-infected pregnant women delivering in the US.

Methods: After obtaining IRB approval, a retrospective chart review from January through December 2016 at multiple tertiary care centers in Miami was conducted. Heterogeneity in the tests performed is attributed to the different CDC guidelines at the time of testing. Demographic data from all women with positive Zika PCR and/or IgM in the serum or urine was extracted and obstetrics parameters as well as the presence of fetal or neonatal abnormalities were recorded.

Results: Of the 1422 women screened, 95 (6.68%) tested positive for Zika virus with PCR in the serum or urine and/or IgM screening. Forty-nine (51.6%) of the women with evidence of Zika infection have delivered, 7 (14.3%) of whom had abnormalities suspected on fetal ultrasonography. Of the 46 women with evidence of Zika infection still anticipating delivery, 5 (10.9%) have suspected fetal ultrasound abnormalities. To date, of the infants born to women with evidence of Zika infection, 2 (4.08%) have documented congenital abnormalities: clinically-defined microcephaly in 1, intracranial calcifications in both.

Conclusions: In light of a prevailing epidemic, data collection from this unique cohort of pregnant women infected with both local and travel-related Zika virus augments our understanding of the implications of Zika virus infection in pregnancy.
Abstract Title:
An Atypical Cause Of Shoulder Pain In A Male Ballet Dancer

Abstract Text:
Introduction: Stress fractures most commonly occur in the lower extremities and remain a nagging cause of injury in the professional dancing community, however similar injuries in the upper extremity have gone relatively unreported. First rib fractures occur rarely outside of the sports community and the clinical presentation can be ambiguous, which may contribute to frequent misdiagnosis. In consideration of the pervasiveness of upper extremity pain in this population, it is prudent to study this entity further.

Case Description: Our patient is a 17 year old male who presented to our clinic with a complaint of left shoulder pain after a lifting injury he sustained while working with his female partner. Upon examination there was no evidence of swelling or ecchymosis in the shoulder and he was neurologically intact. The patient displayed some pain with both shoulder and cervical range of motion but had difficulty localizing the pain. Palpation of the first rib at the base of his neck was provocative and reliably reproduced the patient’s symptoms. A left sided rib series was performed which demonstrated an incomplete fracture of the first rib without evidence of displacement. The patient was given a brace and told to limit active movement of the arm as well as abstain from ballet practice. He was followed closely and re-evaluated at 2 and 6 weeks post-injury. At 6 weeks his fracture showed evidence of bridging callus and the patient was subsequently referred to physical therapy to begin a graded exercise program.

Discussion: The pathogenesis of 1st rib stress fractures is thought to include repetitive use of the upper extremities or forceful movement of the head and neck, both of which are commonly required of male ballet dancers. Diagnosis is initially made clinically and confirmed with advanced imaging such as x-ray, although it is imperative to note that this modality is only moderately sensitive and may be negative in up to 60% of cases. This makes incidence difficult to determine; however in previous studies it’s been demonstrated that dancers commonly have asymptomatic stress reactions and occult injuries along portions of the ribs as a consequence of improper lifting. This can lead to chronic pain and further complications including Horner’s syndrome, thoracic outlet syndrome or pseudoarthrosis; however, most of these complications can be avoided with prompt diagnosis and adequate rehabilitation.

Conclusion: This case demonstrates the importance of early diagnosis regarding this type of injury which is critical to minimize a patients return-to-play time and avoid any long-term sequelae. Due to the high false-negative rate associated with plain films it is imperative to develop good clinical acumen and always suspect this type of injury in patients who participate in sports with repetitive sub-maximal loading of the upper extremity.
Cunninghamella bertholletia is an opportunistic fungi species of the phylum Zygomycetes that almost exclusively affects immunocompromised hosts. It is highly invasive and is well known for angioinvasion of nearby vasculature.

A 43 year old woman with a history of relapsed acute myeloid leukemia (AML) complicated by hemophagocytic lymphohistiocytosis (HLH) status post matched unrelated donor allogeneic stem cell transplantation (HSCT-MUD) in December 2015 was admitted from an outside hospital in July 2016. The patient’s relapse was noted in June 2016 shortly, after which she received 1 cycle of decitabine+ sorafenib. She was due for her second cycle when she was admitted to an outside hospital with neutropenic fevers, diarrhea, and abdominal pain. On admission, the patient was afebrile in mild distress with confusion, diffuse abdominal pain without rebound or guarding, normal strength bilaterally of the lower and upper extremities, and no focal neurological deficits. Her absolute neutrophil count (ANC) was 460 cells/mm3. CT scan revealed thickening of the terminal ileum concerning for neutropenic enterocolitis. The patient was medically treated with cefepime and metronidazole. Neutropenic prophylaxis was continued with trimethoprim/sulfamethoxazole, micafungin, and acyclovir.

The patient remained stable with continued neutropenia until hospital day 20, when she suddenly developed left leg weakness. This quickly progressed to bilateral lower extremity paralysis, areflexia, fecal and urinary incontinence, and loss of sensation below the nipples (T4). Repeat CT of chest, abdomen, and pelvis revealed a left lower lung consolidation, opacification of the left lower lobe bronchus, and a filling defect of the left inferior pulmonary vein with possible extension into the left atrium. Transthoracic ultrasound was limited but did not find evidence of invasion into the left atrium. Intravenous liposomal amphotericin B 300mg once daily and oral isavuconazonium sulfate 372mg once daily was started to treat possible invasive mold infection. Cefepime, metronidazole, and acyclovir were continued. Bronchoalveolar lavage cultures grew Cunninghamella species within 2 days. On hospital day 28, her condition deteriorated quickly. She was transitioned to comfort care and later died of respiratory arrest.

In summary, we describe a neutropenic patient with relapsed AML status post HSCT-MUD who developed pulmonary Cunninghamella that invaded the anterior spinal artery causing anterior spinal artery syndrome. The most common angioinvasive fungal infections are those caused by the genera Aspergillus, Fusarium, and Scedosporium, Rhizopus and Mucor. Hyphae of these fungi have the propensity to invade through blood vessel walls, leading to local tissue infarction and necrosis. This rare case report demonstrates the importance of considering the destructive effects of pulmonary mold infections on nearby contiguous structures, especially due to Zygomycetes, as a cause of anterior spinal artery syndrome in immunocompromised patients.
Abstract Title:
Assessing Burden Of Chronic Disease Among Homeless Patients At USF Tampa Bay Street Medicine’s Well Clinic

Abstract Text:
Introduction: Free clinics, such as the Well Clinic run by the University of South Florida’s Tampa Bay Street Medicine (USF TBSM), help address the unmet healthcare needs of the nearly 36,000 homeless in Florida by providing basic medical and preventative health services. Little research has been performed that characterizes the disease burden and medical needs of Florida’s homeless. We conducted a retrospective chart review of homeless patients seen at the USF TBSM Well Clinic to assess the prevalence of chronic diseases in this population. This project lays the groundwork for free medical aid to be more effectively tailored to the unique needs of the homeless in Tampa, FL, which could decrease reliance of this at-risk population on local hospitals and ERs, and lead to decreased healthcare costs.

Methods: We conducted a retrospective chart review of patients seen in 2015 at the USF TBSM Well Clinic in Tampa, FL. We recorded demographic and medical data from patient-reported medical history and tallied each patient’s chronic disease diagnoses, using the list of 20 chronic disease states from the Centers of Disease Control (CDC). We totaled these chronic disease states to calculate each patient’s Disease Burden Index (DBI) and analyzed our data using SPSS/SASS.

Results: We included all homeless patients seen at the USF TBSM Well Clinic in 2015 over the age of 18. Of our 76 patients, 84.21% were male and 15.79% were female. Ages ranged from 19 to 74, with a mean age of 49.58. The most common chronic diseases were hypertension (28.95%), depression (25.00%), substance abuse (21.05%), osteoarthritis (13.16%), and type II diabetes (11.84%). The average disease burden index (DBI) was 1.49 (SD = 1.37). 31.58% of the patients had none of the 20 chronic disease conditions, while 22.37% reported one, 22.37% reported two, 17.11% reported three, 2.63% reported four, and 3.95% reported five.

Conclusions: The rate of patient-reported depression among homeless Well Clinic patients was significantly higher than the national rate (25.00% vs 7.6%). The substance abuse rate was also significantly higher than the national rate (21.05% vs 9.3%). Rates of hypertension and osteoarthritis were nearly identical to the estimated national rates (hypertension: 28.95% vs 29%; osteoarthritis: 13.16% vs 13.9%). The rate of diabetes was slightly greater than the national rate (11.84% vs 9.3%). This information will allow future interventions to be tailored towards the specific health challenges facing the homeless in our area. This study demonstrates the critical need for mental health initiatives and substance abuse treatment programs that are accessible to the homeless in Tampa, FL.
2016 Florida Chapter Doctors Dilemma Champions

University of South Florida

Ju Hee Kim, MD • Tara Saco, MD • Martin Guerrero, MD

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2013 - University of Florida
2012 - University of Miami - Jackson Memorial Hospital
2011 - University of Florida - Jacksonville
2010 - University of South Florida
2009 - University of South Florida
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