Abstracts From the Louisiana American College of Physicians Associates Meeting

Each year medical students in Louisiana and residents from the seven internal medicine training programs in Louisiana are invited to submit abstracts for the annual Louisiana American College of Physicians (ACP) Associates Meeting. The content of these abstracts includes clinical case vignettes or research activities. The abstracts have all identifying features removed (ie, names, institutional affiliations, etc.) before being sent to physician judges who are not directly affiliated with the medical schools or training programs. Each judge scores each abstract independently and then the scores from the judges are averaged and ranked. This year we are able to publish the 26 most highly ranked abstracts presented at this year’s competition. These abstracts (15 oral; 11 poster) were presented at the Associates Meeting held at Tulane Health Sciences Center in New Orleans on January 26, 2011. Furthermore, during the oral and poster sessions, the presentations were evaluated by several faculty and double asterisks(**) at the front of the titles represent the abstracts that were considered the best at the meeting based on presentation and educational value. We would like to thank the Journal of the Louisiana State Medical Society and appreciate its efforts to publicize the hard work of these trainees.

Lee Engel, MD, PhD
Chair, Louisiana Associates Liaison Committee

Fred A. Lopez, MD, FACP
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The Leptospirosis Presenting as Heat Stroke
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Case: A 60-year-old oil rig worker with no previously diagnosed medical issues was well until approximately one week before presentation to the emergency department (ED) for dehydration and heat stroke. His family reported three days of subjective fever and the inability to produce sweat after working on a Gulf oil rig one week prior to presentation. His family attempted to treat him with ice bags under his axillae and in his groin which provided relief. On the fourth day, however, his family noted profuse sweating and significant, dramatic weight loss. On the sixth day his family started to notice increasing confusion, and on the seventh day he was brought to the ED. During the ED work-up, the patient was found to be in acute renal failure with a creatinine of 6.15, and in liver failure with an aspartate transaminase of 105, alanine transaminase of 165, and alkaline phosphatase of 205. He also was found to be hyponatremic, mildly leukocytic with a bandemia, and severely thrombocytopenic. His urine sodium was 54 mmol/L. A presumptive diagnosis of leptospirosis was made based on clinical presentation and empiric antibiotic therapy with penicillin was initiated. His labs normalized after six days of inpatient care and he demonstrated clinical improvement. A serological test for leptospirosis yielded a positive result, confirming a recent infection.

Discussion: Leptospira interrogans is relatively rare in Louisiana and usually manifests in tropical climates. Humans are usually infected after exposure to environments contaminated with small mammal urine. Hawaii is reported to have the most cases in the United States. Although the clinical manifestation of leptospirosis is variable and most cases are mild to moderate in severity, a high index of suspicion must be maintained for patients with abrupt onset of fever, acute renal and hepatic fever, mild leukocytosis, and thrombocytopenia. Diagnosis may be confirmed via serological tests. First line treatment is with penicillin G or ceftriaxone, while doxycycline and ampicillin are alternatives.

Intestinal Spirochetosis Presenting as a Leiomyoma
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Introduction: Intestinal spirochetosis (IS) is a misunderstood condition caused by the intestinal invasion of spirochetes. Case: A 51-year-old African American man with a past medical history significant for hypertension and hyperlipidemia presented for a routine screening colonoscopy. The patient had some intermittent rectal bleeding due to hemorrhoids, but no other gastrointestinal complaints, and no family history of any malignancies. On physical exam, the patient had a small hard mass in his proximal anal canal. The colonoscopy revealed several internal hemorrhoids, polyps in the sigmoid and descending colon, and severe diverticulosis. Biopsies of the rectal mass and the polyps in the sigmoid and descending colon demonstrated intestinal spirochetosis as well as a leiomyoma.

Discussion: Intestinal spirochetosis is a condition in which spirochetal organisms are attached to the apical cell membrane of the colorectal epithelium. The two most commonly involved spirochetes are Brachyspira aalborgi and Brachyspira pilosicoli. Patients who are symptomatic with IS often present with chronic diarrhea and abdominal pain, however, IS can also present as an incidental finding on screening colonoscopy. The prevalence of IS tends to be higher in undeveloped countries. In developed countries, homosexual males and immunosuppressed individuals tend to have a higher incidence. The diagnosis of IS is usually made with colonoscopy, although its endoscopic appearance varies from normal appearing mucosa to erythematous, ulcerated, or polypoid lesions. New diagnostic modalities incorporate the use of polymerase chain reaction; however, the vast majority of diagnoses are still histological. In symptomatic patients, a course of treatment with antibiotics, most commonly metronidazole is effective in relieving symptoms. In this case, IS was concomitantly found in a patient with a gastrointestinal stromal tumor (GIST). On review of the literature, IS is not associated with a higher incidence of GIST or any other malignancy. IS is a rare condition that can present in many different ways, and may be implicated in malignancies of the GI tract.

It Only Hurts When I Breathe
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Case: A 55-year-old woman presented with two months of progressively worsening dyspnea on exertion, cough productive of yellow sputum and occasional hemoptysis. She also noted edema of the lower extremities. Her physical exam demonstrated that her lungs were clear to auscultation bilaterally; there was no wheezing or crackles. The jugular venous pressure was not elevated. There was mild lower extremity edema. The patient had a normal ejection fraction and mild pulmonary hypertension by transthoracic echocardiogram. Computed tomographic angiogram revealed a hypoplastic right pulmonary artery. The right lung on ventilation perfusion scan had no perfusion, but normal ventilation within the right middle and lower lobes and decreased activity in the right upper lobe. Pulmonary arteriogram revealed complete occlusion of the right main pulmonary artery. These findings were diagnostic of Swyer-James-Macleod syndrome.

Discussion: Dyspnea on exertion is a commonly encountered problem. An approach to determining the cause of dyspnea is to investigate each organ system, while allowing the history and physical to direct us to the appropriate diagnosis. In our patient with dyspnea on exertion, productive cough and occasional hemoptysis led us to further investigate the pulmonary system. Through imaging we found a ventilation perfusion mismatch and hypoplasia of the right pulmonary artery tree thus identifying the lungs as the etiology of the patient’s symptoms. Dyspnea on exertion is a common presentation of Swyer-James-Macleod syndrome in adults. Swyer-James-Macleod syndrome is a post-infectious state secondary to bronchiolitis obliterans. This syndrome is usually diagnosed in childhood, but asymptomatic individuals may go undiagnosed until adulthood. Inflammation and fibrosis causes narrowing in the bronchioles. The pulmonary capillary bed is secondarily affected, leading to decreased blood flow to the pulmonary arteries, thereby causing decreased arterial development. Given that dyspnea is a commonly encountered problem, internists must broaden their differential diagnosis to include diseases of childhood that may go undiagnosed, but that present in symptomatic adults.

Ocular Hydroxypropyl Cellulose Drug Delivery Systems
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Introduction: Topical treatment of dry-eye disorders and other ocular diseases is problematic due to the logistical difficulty of maintaining appropriate drug concentrations on the eye surface. Most efforts in the treatment of ocular diseases have focused on topical drops or tear fluid augmentation, however up to 95% of topical drops are cleared from the conjunctival sac within seconds of administration by draining into the nose or spilling onto the cheek. Achieving a significant concentration of drug on the surface of the eye and within the eye thereby presents a daunting challenge in the effective treatment of ocular disease. Thus, the utilization of a biodegradable delivery system to maintain the medications at a therapeutic dosage within the tissue would be of particular use in the eye. Hydroxypropyl cellulose (HPC), is a Food and Drug Administration-approved biodegradable cellulose material that, when placed in the recess of the lower eyelid, helps to maintain pre-corneal hydration by extending the tear breakup time in dry-eye conditions.
Methods: In this study, HPC pellets were modified by loading the polymer with drug to promote extended pre-corneal drug adsorption over the period of pellet dissolution. In order to evaluate the efficacy of the drug delivery system, tritiated-cyclosporine loaded pellets were tested both in vitro, for release profiles, and in a rabbit eye model, for tissue penetration. The cyclosporine release profile of the delivery system was analyzed under sink conditions using balanced salt solution at physiological temperatures over eight hours. Tritiated-cyclosporine drops, loaded-pellets, and empty pellets were administered to New Zealand white rabbits over a 12-hour period. At the end of the experimental period, tears and ocular tissues were harvested, separated, and counted for radioactivity.

Results: The in vitro release profile showed that although 50% of the drug was released within the first hour, drug delivery proceeded over six hours before all drug was released. In vivo, significantly more cyclosporine was found in the tissue of eyes with the HPC delivery system than those that received drops (p= 0.005). Ninety-four percent of the drug remaining in tissue 12 hours post-administration was isolated from the corneal tissue and the immediately surrounding sclera rim. Drug penetration into the iris accounted for the remaining drug within the tissue, with negligible amounts found in the aqueous humor and tears. Eyes treated with the HPC delivery system contained 52% more tritiated-cyclosporine at the end of the experimental period than those treated with tritiated-cyclosporine drops.

Conclusion: Further investigation into the applicability of this HPC delivery system to other drug types is ongoing.

A Rare Disease in a Rare Host: Whipple’s Disease With Pulmonary Hypertension in an African American Male

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Case: A 48-year-old African American man with longstanding anemia of unclear origin, presented with two weeks of profound shortness of breath, fatigue, and marked exercise intolerance, as well as mild fevers, night sweats, orthopnea, and a 20-pound weight loss over the previous month. Physical examination revealed an asymmetrically-wasted middle-aged man with 100% oxygen saturation on room air. The patient had marked temporal wasting, pale conjunctiva, and a cachectic-appearing upper torso along with tachycardia and bibasilar dry crackles. The abdomen was significantly distended with mild tenderness, and there was 2+ pretibial pitting edema. Laboratory studies were significant for a microcytic anemia (9.7/30), hyponatremia, hypoalbuminemia, hypolipidemia, and an international normalized ratio of 1.3. Chest radiograph suggested an
enlarged pulmonary artery. High resolution computed tomography revealed increased pulmonary vasculature and cardiomegaly, while echocardiogram suggested moderate to severe pulmonary arterial hypertension (PAH) without evidence of shunt. Right heart catheterization confirmed PAH with mild to moderately elevated pressures (47/28mmHg) and decreased O₂ saturations (58%), which improved significantly on 100% oxygen to a mean of 17mmHg and 75%, respectively. There was minimal improvement on inhaled nitric oxide. Upper endoscopy was significant for marked edema, erythema, and nodularity of the stomach and duodenum without ulceration. Biopsies returned positive for periodic acid-Schiff positive organisms consistent with *Tropheryma whippelii* and confirmed by polymerase chain reaction.

**Discussion:** A rare entity in itself, Whipple’s disease in this patient is unique both epidemiologically and clinically. Diagnosed approximately 10-30 times per year globally, Whipple’s disease is almost exclusively seen in males of northern European ancestry, with only 10 non-Caucasians reported and two published cases of African-descent individuals since. Whipple’s disease classically presents with four symptoms: diarrhea, anemia, arthralgias, and malnutrition. Our case is unique in that our patient lacked diarrhea and arthralgias. Furthermore, associated pulmonary hypertension is rare, and its pathobiology is unknown. There are only four other reported cases of Whipple’s-associated PAH, two of which had aortic insufficiency as the presumed cause; this case represents the third case without left heart-sided pathology, and the first of which the effect of supplemental oxygen and vasodilators have been tested. Finally, in Caucasian, male-predominant diseases, the three reports of class V PAH include one African American and one woman; this suggests that a host factor may predispose patients to PAH when infected with *T. whippelii*.

**Chest Pain From a Kissing Bug**

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**Case:** A 59-year-old Hispanic man presented with three days of intermittent substernal chest pain radiating to the left axilla, occurring at rest, and associated with shortness of breath, diaphoresis, and nausea. His past medical history was significant for hypertension. On presentation, the patient’s blood pressure was 170/103 and he was bradycardic; all other vital signs were normal. Physical examination including cardiovascular exam was unremarkable.

Laboratory studies revealed a normal complete blood count and basic metabolic panel. Initial cardiac troponins were 0.07-0.08 ng/mL. Electrocardiogram (ECG) demonstrated sinus bradycardia, low voltage QRS, left anterior fascicular block, and atrial abnormality. A dobutamine stress echocardiogram showed moderate left ventricular systolic dysfunction (ejection fraction of 35%) and segmental wall motion abnormalities. Coronary angiography revealed non-ischemic cardiomyopathy, akinetic left ventricle, and an apical aneurysm. These findings suggested myocarditis, in particular, Chagas disease, which was confirmed with a positive *Trypanosoma cruzi* IgG. Further questioning of the patient revealed that he lived until age 40 in an adobe house in rural Guatemala. He also complained of difficulty swallowing and nearly daily vomiting.

**Discussion:** In 1909, Brazilian physician Carlos Chagas identified an infectious tropical disease caused by the parasite *Trypanosoma cruzi*, named after a colleague, Dr. Oswaldo Cruz. Paleoparasitology data suggest Chagas has existed for approximately 9,000 years. Transmission occurs via the bite of an infected triatomine insect, or “kissing bug,” endemic to the Americas. Triatomes thrive in low socioeconomic, rural areas of Latin America with poor housing conditions such as mud walls and thatched roofs. Immigration has transformed Chagas into an important public health issue in the United States with an estimated 300,000 immigrant cases.

Cardiac manifestations of Chagas include biventricular enlargement, thinning of the ventricular walls, damage to the cardiac conduction system and development of apical aneurysms, resulting in symptoms of heart failure, palpitations, syncope, and thromboembolic disease. Atypical chest pain relates to microvascular perfusion defects. ECG findings may include right bundle-branch block, left anterior fascicular block, bradyarrhythmia, ventricular premature beats, low voltage QRS, and high-degree heart block. Our patient exhibited conduction system abnormalities, dilated left ventricle and apical aneurysm. The patient’s description of typical chest pain led us to evaluate for ischemic causes. However, demographics, ECG, angiography results, and gastrointestinal complaints suggested infectious cardiomyopathy. This case reinforces the importance of historical clues and demographic data in making the diagnosis.

**An Interesting Case of Mimicry:** *Rhodococcus equi*

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**Introduction:** *Rhodococcus equi* commonly causes infection in horses, cattle, and swine, but rarely humans. However *R equi* is emerging as a new pathogen in immunocompromised individuals. Approximately 80% of humans infected with *R. equi* develop a pulmonary infection, with necrotizing pneumonia as the most common presentation.
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Case: A 34-year-old man with past medical history significant for renal transplant was transferred to our facility with a diagnosis of right upper lobe pneumonia. The patient initially presented to the emergency department with complaints of fever and productive cough and was sent home. His symptoms worsened and he returned one week later complaining of worsening cough, fevers, and chills with a maximum temperature of 103°F. He also reported night sweats and a five-pound weight loss over two weeks. Computed tomography of the chest revealed a right upper lobe consolidation with a well defined 1.6 cm nodule adjacent to the area of consolidation. Initial blood cultures grew gram positive rods. Acid fast bacilli smears were negative. The patient underwent bronchoscopy as he was not responding to antibiotics. Bronchoscopy revealed an endobronchial lesion, bronchial lavage cultures did not grow and cytology was negative. One week after admission, the bacteria in the blood cultures were identified as *Rhodococcus equi*. Further questioning revealed that the patient had worked on a horse farm. The patient was treated with antibiotics without symptom resolution and with persistent bacteremia. He subsequently went to surgery to have the tumor mass removed to decrease the associated tumor burden. Postoperatively, patient completed an eight-week course of antibiotics. Follow-up blood cultures, one month after discharge, revealed persistent *Rhodococcus* bacteremia. The patient was lost to follow-up.

Discussion: *Rhodococcus equi* is an opportunistic infection that has increased in frequency as the amount of people surviving with transplants is increasing. There are 100 documented cases of *Rhodococcus* infections, the majority described in patients with human immunodeficiency virus. Over 20 cases have been documented in solid organ transplant recipients. To our knowledge, only nine cases have presented as an endobronchial mass. Increased awareness of this pathogen may help with early diagnosis and treatment.

The A, B(19), C's of Acute Renal Failure
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Case: A 48-year-old man was referred from clinic with worsening acute renal failure. He reported nausea without emesis, but no other symptoms. His creatinine was 8.3 mg/dL (increased from his baseline of 1.4 mg/dL 12 days earlier) and blood urea nitrogen 99 mg/dL. He denied a history of kidney disease, but reported being hospitalized two weeks prior for an acute febrile illness with associated arthralgias, nausea with emesis, and diarrhea. During this time, he was treated with intravenous fluids and doxycycline and was discharged. His blood pressure was 195/108 mmHg; the remainder of his vital signs were normal. He was in no acute distress, and his physical examination was normal. A urinalysis showed 2-5 white cells, 1 red cell, 200 mg of protein, and few scattered fine granular casts. The urine drug screen was negative. A renal ultrasound showed mildly enlarged kidneys without evidence of hydronephrosis, mass, or renal artery stenosis. The HbA1c was 5.9 and spot urine protein-to-creatinine ratio was 2.31. The C3 level was low at 84.3 with a normal C4 level 28.4. Antinuclear antibody test was <1:20 (normal), classical antineutrophil cytoplasmic antibodies was <1:20 (normal), perinuclear antineutrophil cytoplasmic antibodies was 1:80 (high), and glomerular basement membrane antibody < 3.0 (normal). He had a kidney biopsy which showed a severe increase in mesangial matrix and edematous interstitium with fibrosis, tubular atrophy, and occasional inflammatory cells. Electron microscopy showed a thickened basement membrane, effacement of the foot processes, and an absence of deposits. Laboratory records from his hospitalization two weeks earlier revealed a positive parvovirus B19 IgM (4.31) and IgG (0.12). Based upon these studies, the patient was diagnosed with acute renal failure secondary to parvovirus B19 infection, and underlying diabetic nephropathy.
Discussion: Parvovirus B19 infection, an ubiquitous, human-specific deoxyribosenucleic acid (DNA) virus, causes a range of symptom severity depending on the age and health status of the human host. For infected adults, 25% are asymptomatic; 50% will present with fever and myalgia; and 25% will have fever, myalgia, arthralgia, and a lace-like rash. In immunocompromised individuals (ie, history of transplants, human immunodeficiency virus, and diabetes mellitus), infection can result in a chronic anemia. In this subset of patients, the typical rash or arthropathy may be absent. Parvovirus B19 has been implicated in nephritic and nephrotic syndromes. Although there is no specific antiviral treatment for parvovirus B19, transfusions and intravenous immunoglobulin therapy are useful in the settings of transient aplastic anemia or chronic infection, especially in immunocompromised patients. Active Parvovirus B19 infection is diagnosed in an immunocompetent individual by serologic testing for IgM, and viral DNA can be detected in the blood by polymerase chain reaction in immunocompromised individuals.

Case: A 63-year-old woman with a past medical history of hypertension and hypothyroidism presented to a nearby emergency department (ED) with a chief complaint of a cough for nine weeks. She began experiencing a dry cough, which progressively worsened in frequency with sputum production over the next week. Over the next eight weeks, the patient had multiple visits to a community clinic and to the ED in her hometown. She completed several courses of antibiotics for bronchitis, but her symptoms continued to worsen. The patient complained of fever, as high as 101.4°F, malaise, night sweats, chest pain with coughing, and an unintentional weight loss of 10-15 pounds over the nine weeks. The patient denied shortness of breath, hemoptysis, sick contacts, or any prior incarceration. The patient had a non-reactive purified protein derivative four years prior. On physical exam, the patient was ill appearing, febrile with a temperature of 101.2°F. On cardiac exam patient was tachycardic. On pulmonary exam, she was tachypnic (respiratory rate of 34), had intermittent inspiratory and expiratory wheeze over right posterior hemithorax, and crackles over right posterior lung base. The chest radiograph showed consolidation involving the right lung base. A follow-up computed tomography of the chest showed partial consolidation of the basal segments of the right lower lobe and a nodular soft tissue density at the right infrabiflar region. On laboratory examination, she was found to have leukocytosis $13.7 \times 10^3/UL$ with bandemia.
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of 12% and 73% segmented neutrophils. She was initially treated for health care associated pneumonia with broad spectrum antibiotics. However, when the pulmonary team was taking their history and a directed question was asked as to whether she remembered choking on anything in the recent past, she remembered choking on a pecan nut during Christmas, approximately two and a half months before her initial presentation for cough. The patient underwent a bronchoscopy and a foreign body was recovered – a pecan.

Discussion: Foreign body aspiration (FBA) is commonly seen in children, however, is rare in adults. Most cases of FBA in adults are seen in the sixth or seventh decade of life, and are commonly associated with impairment in mental status or swallowing reflex. Directed questions to obtain the aspiration/choking history can help yield the diagnosis. When the diagnosis is delayed, complications from the retained foreign body are usually seen: lung abscess, recurrent hemoptysis, bronchiectasis, and unresolving pneumonia as in our patient. Once the diagnosis is made, prompt removal of the foreign body is essential to avoid long-term complications. Although FBA is a rare cause of chronic cough in adults, this differential should be entertained especially when management of other more obvious causes of chronic cough does not provide clinical improvement.

Thicker Than Blood
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Case: A 48-year-old man with a history of hypertension, diabetes and hepatitis C presented to the emergency department after being found disorientated by his friends. He remembered driving to the grocery store at which point he became confused and on his return incurred a minor traffic accident. He woke up sitting on the front porch. Recently, he had become frequently forgetful. He denied the use of illicit substances. He complained of frequent maroon stools but denied headache, change in vision, chest pain, shortness of breath, nausea, vomiting, and diarrhea. He was alert, awake and orientated but frequently confused and unable to answer all questions appropriately. Except for positive hemoccult, the physical exam was normal. A computed tomographic scan of the head was negative. Laboratory data revealed an anion gap acidosis and protein gap. Ammonia, ethanol, lactic acid, osmolality, and liver function tests were within normal limits. Urine toxicology panel was negative. Protein analysis with serum protein electrophoresis demonstrated a monoclonal spike in the gamma region measuring 0.7g/dL. Serum IgM was measured at 900 mg/dL (normal 40-230 mg/dL). A bone
Hyperviscosity syndrome is a clinical entity occurring in 30% of patients with Waldenstrom’s macroglobulinemia. Waldenstrom’s macroglobulinemia is a lymphoid neoplasm characterized by a monoclonal lymphoplasmacytic expansion with a serum monoclonal M protein (IgM). The increasing amounts of IgM pentamers bind electrostatically to red blood cells causing aggregation and rouleaux formation, thereby increasing the serum viscosity. The syndrome usually occurs at IgM concentrations greater than 3,000 mg/dL but can occur at lower concentrations. Hyperviscosity syndrome should be suspected in a patient who presents with the triad of neurologic, vision, and bleeding abnormalities. Plasmapheresis dramatically halts the symptoms as the elevated protein component is removed. Chemotherapy includes alkalyating agents, nucleoside analogs, and Rituximab or Bortezmib. Death can result from progressive disease, transformation to lymphoma leukemia, infection, or the development of myelodysplasia.

Radial Artery Retrospective Trial (Radar Retro)
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Introduction: Conventional coronary angiography (CCA) is an essential tool in the assessment of coronary artery disease. While a relatively common procedure, its medical risks include both contrast and radiation exposure. In the United States, the femoral artery approach to CCA predominates. However, the radial artery approach affords many benefits, especially in a community-based hospital where percutaneous intervention may not be immediately available. This study compares femoral and radial approaches to CCA in terms of patient satisfaction and exposure to radiation and contrast.

Methods: Through a chart review and patient survey, this study evaluated 115 patients who underwent CCA from 2006-2010. Patients underwent diagnostic catheterization from either a femoral or radial approach. Forty-three patients received both femoral and radial procedures. The primary endpoints were reductions in total procedure time, total contrast administration, and time of radiation exposure. Secondary endpoints were patient satisfaction and perceived pain during the procedure.

Results: When compared with the femoral approach, radial access was associated with less procedure time (femoral mean, 47 minutes; radial mean, 37.52 minutes; P = 0.022). There was a trend toward reduced amount of contrast (femoral mean, 132 mL; radial mean, 109.32 mL; P = 0.08) and less radiation exposure (femoral mean, 9.4 minutes; radial mean, 6.27 minutes; P = 0.095). The average pain score was 64% lower with the radial procedure. Notably, 70% of patients who underwent both approaches preferred radial access.

Conclusions: This study demonstrates that patients prefer radial access and that it is associated with less procedure time. The amount of contrast and radiation exposure is at least equivalent to the femoral approach. The investigators feel a prospective randomized control trial should be performed to further validate the efficacy of radial artery catheterization in a community setting.

A Case of Respiratory Failure From Undiagnosed Myasthenia Gravis
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Introduction: Myasthenia gravis (MG) is often complicated by respiratory failure, known as a myasthenic crisis. Although most patients who develop respiratory symptoms do so during the late course of disease and have other neurological signs and symptoms, respiratory failure is occasionally the initial presenting symptom.

Case: A 78-year-old African American man with past medical history of asthma, type 2 diabetes and hypertension presented with progressive shortness of breath over the last two weeks and dyspnea on exertion. He denied any chest discomfort, orthopnea, paroxysmal nocturnal dyspnea, cough, fever or chills. He reported diplopia for the last several months. The patient had a significant smoking history and had worked in shipyard for 12 years.

On admit, an arterial blood gas on room air revealed a pH of 7.41, pCO2 36, PO2 78, bicarbonate of 23 and physical exam demonstrated bilateral ptosis and diplopia. His pulmonary and cardiac exams were unremarkable. Serum chemistries were non-diagnostic. Chest radiography showed borderline cardiomegaly and computed tomography of the chest showed patchy bilateral partially calcified pleural plaques but no pulmonary embolus. Electrocardiogram showed sinus tachycardia with an incomplete right bundle branch block and left anterior fascicular block, consistent with prior studies. Echocardiogram was normal. Despite nebulizer and oxygen therapy, the patient’s respiratory status worsened and he was placed on bilevel positive airway pressure. With an unremarkable chest radiograph and with the presence of ptosis and diplopia, it was thought that patient’s respiratory symptoms could be related to a neuromuscular disease. Further neurological exam demonstrated loss of neck tone...
Rhabdomyolysis has often been associated with myasthenia gravis crisis. An electromyography showed a decrement in response to repetitive nerve stimulation in various muscles. The patient was treated with plasmapheresis, mestinon and methylprednisolone and his symptoms improved. His acetylcholine receptor antibody titer was positive confirming myasthenia gravis as the cause of his respiratory failure.

**Discussion:** MG is a chronic autoimmune neuromuscular disease. MG is characterized by autoantibody attack of acetylcholine receptors at the motor end plate of striated muscles, resulting in variable muscle weakness made worse by exercise. Respiratory failure has been reported to be the initial manifestation of MG in 14% to 18% of the patients. This case illustrates the need to consider neuromuscular disorders in cases of unexplained respiratory failure.

**Rhabdo on the Gulf**
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**Case:** A 44-year-old African American man presented to the emergency department with a four-day history of diffuse muscle cramps and dark urine. The patient, who worked offshore in the region of the oil spill, was brought in by the Coast Guard after his symptoms became progressively worse. Physical exam revealed severe tenderness to palpation in the upper and lower extremities. Creatinine kinase levels were over one million on admission. The patient’s urine toxicology screen was negative, and he denied medications, trauma, or prolonged immobilization. The patient was admitted to the intensive care unit for severe rhabdomyolysis and acute renal failure. Aggressive intravenous fluid resuscitation was initiated. The patient was also found to have a left lower lobe pneumonia and was started on antibiotics. A muscle biopsy was obtained which showed features consistent with rhabdomyolysis. Nephrology was consulted as the patient’s renal failure was becoming progressively worse and continuous renal replacement therapy was started. His creatine kinase levels peaked at two million. Serological studies to search for an infectious etiology, including Legionella, cytomegalovirus and mycoplasma, were non diagnostic. The patient was on appropriate deep vein thrombosis prophylaxis, but it was noted about one week into his hospital stay, that his platelets were decreasing. A heparin-induced thrombocytopenia antibody panel was positive and heparin was discontinued. Several days later, the patient complained of acute pleuritic chest pain and shortness of breath. The patient was treated with argatroban; his symptoms, which were clinically consistent with a pulmonary embolism, rapidly improved. On day 12 of admission, the patient complained of acute abdominal pain, an emergent upright film showed likely bowel perforation, and the patient was taken to the operating room for an exploratory laparotomy to repair a cecal perforation. Over the next two weeks, despite several setbacks in his hospital course, the patient began to show remarkable improvement. Renal function slowly returned and his creatine kinase levels had returned to near normal levels by the time of discharge.

**Discussion:** Rhabdomyolysis has often been associated with toxins, medications, and trauma. In this presentation, the individual’s only known exposure was environmental; the oil spill in the Gulf of Mexico. With limited knowledge of the potential adverse effects of this natural disaster, the patient’s hospital course proved to be a challenging and lengthy one. With appropriate aggressive therapy for severe rhabdomyolysis, the patient was able to make near complete recovery.

**A Rare Case of Budd Chiari Syndrome**
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**Case:** A 21-year-old woman with a history of tobacco abuse and two miscarriages presented with a two week history of right upper quadrant abdominal pain and swelling that was preceded by a flu-like illness. The pain was described as dull, non-radiating, constant 5-8/10 in intensity, and was aggravated by movement. On physical exam, the patient had pale conjunctiva without icterus, abdominal distention, a positive fluid wave and shifting dullness, an increased liver span and bilateral pedal edema. Laboratory findings demonstrated leukopenia (white blood count of 3.3 x 10^9/UL) and anemia (hemoglobin of 11.2 gm/dL/ hematocrit of 34%). The patient also had total bilirubin of 2.1 mg/dL and an international normalized ratio of 1.7. Acute viral hepatitis, human immunodeficiency virus, Epstein Barr virus titer, cytomegalovirus IgM enzyme and IgG enzyme, pregnancy test, antinuclear antibody test, Ro antigen, anti-smooth muscle antibody, anti-mitochondrial Ab, serum protein electrophoresis/urine protein electrophoresis, and gonorrhea screening were all negative. A computed axial tomographic scan of the abdomen and pelvis revealed hepatomegaly, ascites, and an abnormal appearance of the intra-hepatic veins and intra-hepatic portion of the inferior vena cava. Hepatic venogram showed a clot in the right hepatic vein with spider web collaterals. The patient received intravenous heparin therapy. Hypercoagulable work-up revealed low protein C and borderline low antithrombin 3. Liver biopsy results suggested sinusoidal congestion and hemorrhage, extensive fibrosis and ductal proliferation without cholestasis. The obstruction of hepatic veins/venules suggested a diagnosis of Budd Chiari syndrome.
syndrome. The patient’s abdominal pain and distention improved greatly with heparin and she was started on long-term anticoagulation with Coumadin.

Discussion: Budd Chiari syndrome (BCS) is a rare disorder that results from the obstruction of the hepatic venous outflow tract. Classical signs and symptoms of BCS include ascites, hepatomegaly, fever, abdominal pain, lower extremity edema, gastrointestinal bleeding, and hepatic encephalopathy. The diagnosis of BCS can be established noninvasively with Doppler ultrasonography, computed tomographic scan or magnetic resonance angiography. However, the gold standard for diagnosing BCS is venography. Budd-Chiari syndrome is a potentially fatal disorder, if not diagnosed and untreated.

Adult Epiglottitis
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Case: A 70-year-old man presented with 12 hours of sore throat, cough, and increasing respiratory distress. On exam, he was tachycardic and tachypneic with a fever of 101.5°F. His breathing was labored and stridorous. He had no angioedema. His oropharynx was erythematous without exudate. His anterior neck was tender. Breath sounds were decreased in all lung fields with no wheezing or crackles. Intubation although difficult due to edema of the oropharynx and epiglottitis was achieved and he was admitted to the intensive care unit. Empiric antibiotic therapy with ceftriaxone and clindamycin was begun. A neck computed tomographic (CT) scan revealed extensive edema of the pharyngeal soft tissues from the nasopharynx to the true vocal cords including the epiglottis. Blood cultures were positive for beta-lactamase and negative for Haemophilus influenzae one day after admission. He was treated for acute Haemophilus influenzae epiglottitis with ceftriaxone and dexamethasone. Three days after admission, repeat neck CT displayed moderate improvement of the pharyngeal edema. The patient was extubated on his fifth day of hospitalization without complication. His clinical condition quickly improved, and he was discharged with oral amoxicillin-clavulanate antibiotic therapy. The blood sample received by the Louisiana central laboratory was positive for Haemophilus influenza type B.

Discussion: Epiglottitis describes acute inflammation of the epiglottis and surrounding structures. The incidence of childhood epiglottitis has decreased due to the Haemophilus influenzae type B vaccine, yet the incidence of epiglottitis in adults is about 2.5 times greater. This is the first reported case of Haemophilus influenzae type B epiglottitis in Louisiana since 2005. This organism is extremely virulent and can cause significant morbidity and mortality. A variety of pathogens are implicated in the development of adult epiglottitis, including Haemophilus influenzae, Staphylococcus aureus, Streptococci species, and anaerobes. The average age for diagnosis is between 42 and 48 years old with men 2.5 times more likely to experience this disease than women. Although now uncommon in the pediatric setting, epiglottitis should not be overlooked in the differential diagnosis of an adult who presents with symptoms of upper airway obstruction.
Drug-induced liver injury (DILI) can be a serious complication. Heyde’s syndrome is a well documented phenomenon. The association between AS and AVM was first described by Dr. Edward Heyde in 1958. Since that time, a number of studies have been done with mixed results. Of the three studies reviewed, two showed equivocal results and one showed a statistically significant increase in prevalence in AVM with AS. The primary difference between the studies was the way the study groups were selected. In the negative studies, individuals with known AVMs were randomly chosen to have echocardiograms. By contrast, the positive study subjects were selected because they already had clinically significant cardiac murmurs and had therefore already had echocardiograms performed. While the mechanism is not well understood, there seems to be a correlation with the destruction of von Willebrand factor and the accompanying coagulopathy. Furthermore, another study showed that among patients with known AVM and AS who underwent aortic valve replacement, all but one had resolution of their chronic GI bleeding.
Correlation of Postoperative Parathesis Coverage in the Sitting and Prone Positions With SCS Electrodes
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Introduction: Spinal cord stimulation (SCS) is an FDA approved procedure to manage chronic neuropathic pain by implanting an SCS electrode in the posterior epidural space. Changes in patient position can introduce variability in the paresthesia patterns as a consequence of movement of the electrode relative to the spinal cord leading to the well known positional nature of the paresthesia. Because all current mapping techniques to place electrodes physiologically are done in the prone position, the specific relationship between paresthesia coverage of the back in the prone and sitting positions was addressed.

Methods: Two weeks after permanent implantation of a paddle lead (Penta™, St. Jude Medical), paresthesia testing was done at the first follow-up visit. A series of approximately six programming combinations was tried on each patient (n=5) both in the prone and upright (sitting or standing) positions. Paresthesia patterns were documented at each setting.

Results: Paresthesia patterns in the upright position correlated poorly with the paresthesia patterns while lying prone. Only 53.6% of the settings that generated paresthesia in the low back at the prone position also generated such coverage in the upright position. However, in each of these patients, other electrode combinations were found in follow-up to allow coverage of the low back.

Conclusion: Current mapping techniques to place electrodes are done in the prone position. However, most patients use the stimulator in positions other than prone. It is shown that paresthesia in the prone position does not have a direct relationship to the paresthesia pattern perceived when sitting. However, when using the Penta™, coverage could be found for each patient, so changes in mapping techniques may not be necessary.

**Whoever Is Responsible for This Lysing, Had Better Clean It Up!**
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Introduction: Brown tumor or osteitis fibrosa cystica is a rare manifestation of primary or secondary hyperparathyroidism. We present a case with manifestations of primary or secondary hyperparathyroidism. We present a case with manifestations mimicking multiple myeloma with plasmacytoma that proved to be hyperparathyroidism with brown tumor.

Wrote book on living while dying.

Randy Pausch

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Case: A 28-year-old presented to the emergency room with a painful right jaw mass that had been progressively enlarging for 10 weeks. The patient also reported progressive lower back and pelvic girdle pain and headaches. The physical exam revealed a large, tender, right-sided mandibular mass. The patient also had significant tenderness in the bilateral iliac crests, spine, and skull. Labs showed hypercalcemia at a level of 12.7 with albumin 3.8, alkaline phosphatase 728, hemoglobin 9.3, hematocrit 26.9, blood urea nitrogen (BUN)/creatinine 34/2.84, and phosphorus 2.2. A non-contrasted computed tomographic scan of the head/neck not only further delineated the mandibular mass, but also revealed multiple lytic lesions throughout the skull and bilateral scalpula. Plain radiography skeletal series showed diffuse lytic lesions involving all bones. Despite the patient’s young age, in the setting of hypercalcemia, renal failure, anemia, and lytic bone lesions, multiple myeloma with plasmacytoma was considered; however, urine and serum protein electrophoresis revealed no paraprotein spike. Further work-up showed a serum intact parathyroid hormone level of 2,341. Ultrasound and sestamibi scan confirmed suspicion and showed a 2.9 cm right lower parathyroid adenoma. The patient’s hypercalcemia improved with intravenous normal saline, and he was quickly scheduled for surgery by an ear, nose, and throat physician to remove the hyperfunctioning parathyroid adenoma. As anticipated, the patient’s postoperative course was complicated by the development of hungry bone syndrome, which was aggressively treated with both intravenous and oral calcium replacement. Pathology from the surgical specimen was consistent with a benign parathyroid adenoma. Furthermore, pathology from the mandibular mass biopsy was consistent with brown tumor. The patient did well and continues to follow up in medicine clinic.

Discussion: In today’s medical world, it is rare to see hyperparathyroidism progress to this degree. Hyperparathyroidism led to the development of diffuse lytic bone lesions and concomitantly hypercalcemia, which led to renal failure. The patient then developed anemia of chronic disease. Considering these finding without the typical “stones, moans, and groans” the hyperparathyroidism disguised itself as multiple myeloma with plasmacytoma. Osteosarcoma and metastatic disease were given consideration. Literature review revealed brown tumors are rare, but their presentation resembling cancer is even more rare; this is only the second case reported with similar presentation.

Cardiac and Neurologic Ischemia as a Presentation of Churg-Strauss Vasculitis
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Introduction: Churg-Strauss angiitis (CSA) is a granulomatous necrotizing vasculitis affecting small-to-medium-sized vessels. It is usually associated with asthma and peripheral eosinophilia. CSA is a rare disorder with an incidence between 1.3 to 6.8 cases per million patients per year. We report a patient who presented with an acute coronary syndrome and soon afterward developed ischemic neurological manifestations as an overt expression of CSA.

Case: A 58-year-old Hispanic man with a recent diagnosis of bronchial asthma was admitted after presenting with intermittent chest pressure of four days duration. Vital signs at presentation were within normal limits. Initial physical examination was noncontributory. Laboratory data abnormalities included eosinophilia with an absolute eosinophil count of 2,968/mm$^3$. The patient’s electrocardiogram revealed ST-segment depression in inferolateral leads. Cardiac enzymes were positive with a troponin peak of 4.00 ng/mL. Cardiac catheterization did not reveal any obstructive disease. His hospital course was complicated by right upper extremity monoparesis and right facial droop that developed on the second day of hospitalization. Magnetic resonance imaging of the brain revealed multiple areas of ischemia and infarction in watershed distribution bilaterally. Vasculitic work-up showed an elevated erythrocyte sedimentation rate and a positive perinuclear anti-neutrophil cytoplasmic antibody (P-ANCA). Complement levels (C3 and C4) were within normal limits. Computed tomography of the lungs showed patchy ground glass opacities. Based upon these findings, a diagnosis of Churg-Strauss syndrome was made. In addition to standard treatment for acute coronary syndrome and stroke, the patient was treated with high dose corticosteroids. Improvement in his clinical condition was noted soon after initiation of therapy.
**Fanconi Insipidus**
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**Case:** A 41-year-old man presented with three weeks of nausea, vomiting, and a 10-pound weight loss. His past medical history included hemophilia A and human immunodeficiency virus (HIV) for which he was taking highly active anti-retroviral therapy (HAART). Three months after initiating emtricitabine and tenofovir therapy, he began experiencing polyuria and polydipsia. He described no additional symptoms. He was a cachectic man with dry mucous membranes, temporal wasting, and mild epigastric tenderness. His vital signs were normal, and aside from cachexia, his physical examination was also unremarkable. He had a sodium of 153 mEq/L, potassium 3.5 mEq/L, chloride 123 mEq/L, bicarbonate 18 mEq/L, blood urea nitrogen 16 mg/dL, creatinine 1.5 mg/dL. The amylase and lipase were mildly elevated. The HAART was discontinued at admission, and he was given a bolus of one liter of 0.9% saline followed by maintenance intravenous fluids overnight. The sodium increased to 165 mmol/L within six hours; creatinine levels remained unchanged. Urine analysis revealed a specific gravity was 1.002, trace proteinuria, 300 glucose and trace hematuria. Microscopic examination of urine was negative for cells or casts. A desmopressin (DDAVP)-challenge revealed nephrogenic diabetes insipidus. His sodium returned to normal with a dextrose 5% in water drip and oral intake of water. His bicarbonate and phosphate were successfully repleted with Neutra-Phos-K.

**Discussion:** Fanconi syndrome with nephrogenic diabetes insipidus is a rare complication of tenofovir therapy. In adults, fanconi syndrome is an acquired, proximal tubule dysfunction characterized by normal anion gap metabolic acidosis, glucosuria, amioniciduria, with phosphate and bicarbonate wasting. Etiologies of fanconi syndrome include multiple myeloma, heavy metal intoxications, anti-cancer agents, anti-virals, antibiotics and anticonvulsants. Tenofovir-associated nephrotoxicity seems to occur around 20 weeks after initiation. Diabetes insipidus, a condition also associated with tenofovir use, presents with polyuria and polydypsia, and is stratified into central and nephrogenic. Nephrogenic diabetes insipidus results from an alteration in the sensitivity of aquaporin channels to anti-diuretic hormone. Urine will have a low specific gravity, and when challenged with DDAVP, will have no change in urinary output. Cessation of tenofovir results in resolution of renal dysfunction within 10 weeks. With increasing use of tenofovir in HIV management, it is necessary for the hospitalist to be aware of this potential, albeit rare, complication.

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**EUS-Guided Fine Needle Aspiration of Pancreatic Cysts With and Without Antibiotic Prophylaxis: A Retrospective Analysis of Infectious Complications**
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**Introduction:** Pancreatic cystic lesions are often of unclear clinical significance and can pose a diagnostic and therapeutic dilemma. The role of endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) has expanded in recent years and is now routinely used to aid in the diagnosis of these lesions. The overall infectious complication rate of EUS-FNA of cystic lesions is variable and the data is limited. The current recommendation, per the American Society for Gastrointestinal Endoscopy, is to administer an antibiotic, eg, a fluoroquinolone, during and for three to five days after EUS-FNA of a pancreatic cystic lesion. However, this recommendation is Grade 1c and there are significant risks associated with the fluoroquinolone class of antibacterial agents. The aim of this study was to determine the rate of infectious complications when EUS-FNA of pancreatic cysts is performed, with and without antibiotic prophylaxis.

**Methods:** From March 2003 to July 2009, results of pancreatic cyst EUS-FNA in 144 patients were retrospectively evaluated. Patients who underwent a cyst-gastrostomy or were found to have a solid pancreatic mass were excluded. Antibiotic prophylaxis was administered at the discretion of the endoscopist. Data on complications were collected by performing a complete review of medical records from clinic, emergency department, discharge notes, and laboratory studies. This data was supplemented by telephone calls to patients using a standard questionnaire.

**Results:** Fine-needle aspiration was performed on a total of 190 cystic lesions in 144 patients. The overall infectious complication rate was 2.6%. Of the 190 cystic lesions, 120 did not receive prophylactic antibiotics and 70 did receive antibiotics. Four infectious complications were identified in the group who did not receive antibiotics, three had increased white blood cell count, and one had a positive blood culture. One infectious complication was identified in the group who received antibiotics, a positive blood culture. However, this difference in infectious complications between the two groups was not found to be statistically significant (p = 0.65).

**Conclusion:** Infectious complications among patients undergoing EUS-FNA appear to be similar between those receiving prophylactic antibiotics and those who do not. Current recommendations call for antibiotic prophylaxis before EUS-FNA of cystic lesions along the gastrointestinal tract, with a fluoroquinolone as the preferred agent. Given the side effects associated with fluoroquinolones, larger randomized studies should be performed to justify the current recommendations.
Acute Renal Infarction: An Uncommon Etiology of Abdominal Pain in a Healthy Adult
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Introduction: Acute renal infarction (ARI) is a rare cause of abdominal pain in adults. There are a paucity of case reports and case series published on this entity. A single autopsy series of 14,411 patients dying from unrelated causes revealed an incidence of renal infarction at 1.4% with most demonstrating unilateral renal involvement. We present a case of a previously healthy man who was hospitalized initially with a unilateral renal infarction and subsequently developed infarction of the other kidney.

Case: A 56-year-old man without significant previous medical history presented to the emergency department after experiencing sudden-onset left-sided lower abdominal pain. The pain was associated with nausea and two episodes of emesis. Vital signs were unremarkable but physical examination revealed a soft, non-tender abdomen with a left renal bruit. Laboratory data did not show any abnormalities. Abdominal imaging with contrast-enhanced computed tomography revealed a wedge-shaped area of decreased enhancement of the left kidney consistent with an ARI. Further diagnostic testing, including a toxicology screen and a vasculitis and hypercoagulability work-up, were all negative. Abdominal duplex ultrasound showed a tortuous dilated left renal artery and patent renal veins bilaterally. A transesophageal echocardiogram failed to identify any evidence of a thromboembolic source. The patient was empirically anticoagulated with heparin and Coumadin. One week later, the patient returned with a recurrence of abdominal pain at the same location. He was found to have developed a right renal infarction despite adequate anticoagulation. Renal magnetic resonance angiogram demonstrated a beaded appearance of the left renal artery concerning for fibromuscular dysplasia. Renal angiogram revealedstenotic lesions of the left renal artery and a thrombus in the upper branch of the right renal artery. Aspirin was added to Coumadin and the patient was referred to interventional cardiology for possible repair of left renal artery stenosis.

Discussion: ARI is an uncommon cause of abdominal pain in adults. It is usually a consequence of a thromboembolic insult from a distant source. Associations with cocaine use, malignancies, as well as disorders like Marfan’s syndrome have also been noted. Diagnosis is achieved based on contrast-enhanced CT imaging of the abdomen. Treatment modalities include anticoagulation, thrombolysis, or surgery. A comprehensive work-up with a concern for acute renal infarction should be considered when an obvious cause for abdominal pain cannot be elicited.

Wegener’s Masked in Coumadin Toxicity
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Case: A 71-year-old African American man with past medical history of atrial fibrillation, diabetes mellitus type 2, and hypertension presented to Chabert Medical Center with coughing up blood in increasing quantities for the past four days. The patient had a 40-pack per year smoking history, but he quit 20 years ago. He noted increasing shortness of breath, orthostasis, and lethargy for the past two days. He denied having nausea, vomiting, chest pains, abdominal pains, or chills were reported. On examination, the patient was noted to be in mild respiratory distress and had decreased breath sounds bilaterally. Cardiovascular exam was significant for tachycardia with normal S1 and S2. Labs on admit were hemoglobin 6.6, hematocrit 19.0, PT-international normalized ratio (INR) 9.8, blood urea nitrogen 69, creatinine 5.55 (baseline 1.2), and glomerular filtration rate 10. Other significant findings included urinalysis which showed protein 25 and urine blood 250. Chest radiograph revealed extensive bilateral consolidation. Coumadin was held, and the patient received vitamin K, fresh frozen plasma, and packed red blood cells. The INR dropped significantly and was maintained at therapeutic range throughout the patient’s stay. His renal function continued to deteriorate despite correction of his coagulopathy. The positive perinuclear antineutrophil cytoplasmic antibody, classified antineutrophil cytoplasmic antibody, complement levels, antinuclear antibody test, and anti-glomerular basement membrane were all ordered. Without any delay, the patient was started on high dose steroids and placed on Continuous Renal Replacement Therapy (CRRT). A kidney biopsy was performed on the patient’s seventh day of hospitalization, and the biopsy later proved to be consistent with pauci-immune vasculitis consistent with Wegener’s Granulomatosis. The patient’s urine output remained to be satisfactory throughout his stay. Once the diagnosis was confirmed by biopsy, plasmapheresis was initiated. Cyclophosphamide, prednisone, trimethoprim-sulfamethoxasole were also prescribed. On the 13th day, the patient was discharged home. His creatinine is currently 1.2 six months after discharge.

Discussion: Wegener’s Granulomatosis is an uncommon disease with an estimated prevalence of three per 100,000. It most often occurs in the fourth and fifth decade of life, Caucasians are more commonly affected than African Americans. More than 75% of these patients have renal disease, which when left untreated, results in most deaths. Early diagnosis and treatment of Wegener’s Granulomatosis is essential. Delays in diagnosis and/or treatment have proven to increase morbidity and mortality. The key to the diagnosis was the recognition of nephritic syndrome even in the setting of Coumadin coagulopathy.
Two’s Company But Three’s a Crowd
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Case: A 47-year-old woman presented with four days of progressive confusion, abnormal speech, and difficulty performing physical chores at work. Her family also noted recent easy bruising. At the time of admit, she was afebrile, her heart rate was 93 bpm, and her blood pressure was 168/78 mmHg. She exhibited circumspection, perseveration, difficulty naming objects, and could not comprehend complex directions. Her strength, sensation, reflexes, and coordination were normal. She had a diffuse petechial rash and purpura located on her upper and lower extremities. Her platelet count was 7,000 cells/mm³, and her hemoglobin was 8.6 g/dL. She had a creatinine of 1.7 (baseline of 1.0). The peripheral smear had schistocytes and helmet cells. The lactate dehydrogenase was 988 U/L. A magnetic resonance image of the brain confirmed acute ischemic insults within the left parietal lobe and right occipital lobe. A disintegrin and metalloproteinase with a thrombospondin type 1 motif, member 13 (ADAMTS13) activity was low and the ADAMTS13 inhibitor was elevated. Upon further questioning, the patient noted five previous spontaneous abortions. Additional studies revealed positive antinuclear antibody test and double-stranded deoxyribonucleic acid antibodies as well as positive anti-Ro and anti-La antibodies. The dilute Russel viper venom was prolonged at 50.3 sec. Anti-cardiolipin, scleroderma, anti-phosphotyrolserine, and beta-2-glycoprotein antibodies were negative. Further investigations revealed a methylenetetrahydrofolate reductase gene mutation. She was started on high dose IV steroids and plasma exchange for treatment for thrombotic thrombocytopenic purpura (TTP). The plasmapheresis was discontinued when her platelets reached 150,000/mm³ along with clinical improvement. Over the following weeks, she did extremely well with reinstitution of plasmapheresis and continuation of steroids.

Discussion: TTP is an increasingly common disease that can have many different precipitants. The co-presentation of SLE and TTP has been documented and presents a diagnostic challenge. Many of the features of the classic TTP pentad such as central nervous system abnormalities, hemolytic anemia, and thrombocytopenia are shared with SLE. The ADAMTS13 antibody assay can distinguish pure TTP from SLE, but the common laboratory cannot do the test. Given the unique situation, the treatment was tailored to the patient’s short-term and long-term needs. Plasmapheresis, steroids and antiplatelet treatment were started for immediate treatment of the TTP and SLE vasculitis. Early recognition of the disease is imperative for patient survival.

Lady of the Ring
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Case: A 33-year-old woman presented to the emergency department after referral by her primary care physician for a two-month history of abdominal discomfort, epigastric pain, nausea, vomiting associated with difficulty eating, and a 15 to 20-pound weight loss over three months. The patient had a one week trial on esomeprazole which gave no relief of symptoms. An acute episode of coffee-ground emesis prompted admission. The patient had epigastric pain out of proportion to her physical exam which prompted a computed tomographic scan of her abdomen which revealed diffuse thickening of the antrum and pylorus of the stomach with extension into the duodenum and a lesion on the liver. A complete blood count revealed minor anemia. An esophagogastroduodenoscopy showed diffuse antral thickening and a non-perforating ulcer of the mucosa of the stomach with obstruction. Biopsies were diagnostic for diffuse signet ring cell adenocarcinoma with severe chronic reactive gastritis and negative for H. pylori. Surgical-Oncology performed a Roux-en-Y esophagojejunostomy and feeding j-tube placement. A biopsy of the liver lesion during the surgical procedure was diagnostic for a hemangiomia. The patient tolerated all procedures and was discharged on parenteral j-tube feeding with follow-up adjuvant chemotherapy.

Discussion: Gastric carcinoma is one of the leading causes of cancer-related deaths worldwide, particularly in developing countries. The American Cancer Society estimates that approximately 21,000 new cases will be diagnosed, and approximately 10,570 people will die from this cancer in 2010. Gastric cancer rarely occurs before age 40. This disease mostly affects older people, with an average age at diagnosis of 71. Weight loss and persistent abdominal pain are the most common presenting symptoms. Unfortunately, gastric cancer is often advanced at the time of diagnosis, with a five-year relative survival rate of about 28%. Approximately 90% of gastric cancers are adenocarcinomas. Diagnostic testing includes upper gastrointestinal endoscopy with biopsy and cytologic studies. Gastric carcinomas may appear as ulcers, masses, or enlarged gastric folds. Laparoscopy is often used for staging and determination of resectability. The standard treatment is surgical resection with postoperative chemotherapy and radiation.