
# 2023 CLINICAL VIGNETTES & RESEARCH ABSTRACTS E-BOOK

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**OP 1**

**Title:** A Complex Case of Serotonin Syndrome-Induced Takotsubo Cardiomyopathy Presenting with a 'Shark-Fin' ECG Pattern: From Shark to Kraken

**Authors:** Ian Crespo-Orta, MD; J. Escabi-Mendoza, MD; V. Molina, MD; P. Díaz-Rodríguez, MD; M. Alberro, MD

**Abstract:**

Takotsubo cardiomyopathy (TCM) is an acute, often reversible, left ventricular (LV) dysfunction, more common in women, triggered by emotional or physical stressors. The diagnosis of TCM is often challenging because its clinical phenotype may closely resemble acute myocardial infarction (MI) concerning complaints, ECG abnormalities, and troponin elevations without evident obstructive coronary artery disease (CAD). The pathophysiology of TCM remains unclear, but catecholamine surge with induced cardiotoxicity and microvascular dysfunction are on top of the list. Serotonin syndrome (SS) results from medications that increase serotonergic activity, leading to a hyperadrenergic state and potential TCM. ST-Elevation (STE) has been described in nearly half of TCM cases. The "shark-fin" (SF) STE pattern has been described as a specific indicator of an acute coronary occlusion with a large ischemic myocardium, translating into a poor prognosis. This ECG presentation has also been reported in rare cases of TCM, associated with more severe complications and long-term adverse events in a prospective TCM series. We present a 65-year-old female with a medical history of hypertension, posttraumatic stress disorder, major depressive disorder, and cannabis use disorder presented to the emergency department (ED) with nausea, vomiting, general malaise, anorexia, tachycardia, tremor, agitation, and ocular clonus. A few hours before the ED visit, she consumed multiple pills of trazodone, citalopram, buspirone, and increased cannabis use. The patient was admitted with a provisional diagnosis of severe depression, SS, cannabis-induced hyperemesis syndrome, and volume depletion. During her second day of care, she experienced a chest pain episode with stable vital signs. ECG revealed marked STE with SF morphology in L-1, aVL, and V2-V4. Bedside echocardiography demonstrated significant segmental wall motion abnormalities and severe LV systolic dysfunction. High-sensitive troponin-T levels were elevated at 607ng/l (abnormal cutoff >13ng/l). During an emergent coronary angiography, she became complicated with cardiogenic shock and flash pulmonary edema, which required rapid sequence intubation, vasopressor, and intra-aortic balloon pump (IABP) for hemodynamic support. The left ventriculogram revealed an ejection fraction (EF) of 25%, with a circumferential mid-anterolateral and inferior wall akinesis, with sparing of basal and apical walls, and hyperdynamic basal wall contraction associated with severe mitral regurgitation (MR) and coronary angiography with non-obstructive CAD. Due to the current findings, an atypical mid-ventricular TCM variant was diagnosed, triggered by a SS. She was gradually weaned from the IABP, ventilator, and vasopressors with the subsequent addition of heart failure reduced EF medications, with a preliminary echocardiogram at one week demonstrating improved MR and EF of 45-50%. While TCM is a reversible condition, hemodynamic and electrical instability during the acute phase expose patients to the risk of serious adverse events. TCM represents a heterogeneous clinical condition, depending on a variety of different triggers. SS is a rare cause of TCM described in the literature. Acute complications of TCM can be severe, including a 5% in-hospital mortality related to cardiogenic shock, pulmonary edema, left ventricular outflow tract obstruction, and severe mitral regurgitation, all of which occurred in this patient. Recognizing a "shark-fin" STE pattern may identify patients with the worst outcomes.

**OP 2**

**Title:** Schistosomiasis as unexpected finding in hepatitis C and hepatitis B virus co-infection with lung metastasis.

**Authors:** Luis Custodio, MD; Milaris Sánchez-Cordero, MD ; Alma Corbala, MD

**Abstract:**

Schistosomiasis is a disease caused by parasitic worms, its reservoir being freshwater snails, is considered one of the most devastating parasitic diseases. Its prevalence is increasing annually. Currently, the infection rate is 1:30, and it infects >200 million people worldwide with 10% suffering severe consequences. Clinical features of acute presentation are rash and pruritus, fever. It is the second most common cause of esophageal varices, bladder cancer, renal failure, liver failure, pulmonary hypertension, and central nervous system symptoms. This reports a case of 67 years old male patient with past medical history of HBP, T2DM, cirrhosis and IVD use hx who presented to the ED due to anasarca and abdominal distention. PT with military history and deployments on endemic areas for schistosome. Patients laboratories showed evidence of persistent eosinophilia and due to this reason, a general workup for parasitic infections was ordered in combination with hepatitis panel. Blood test confirmed the presence of IgG antibody, and Hepatitis C panel serology resulted positive for genotype 1A on the panel. As the treatment for symptomatic Schistosomiasis is administration of praziquantel, a Head CT was ordered to evaluate for active parasitic lesions and resulted without evidence of active lesions. Additional laboratories for tumor markers resulted positive for carbohydrate antigen 19-9, elevated carcinoembryonic antigen, and alpha-fetoprotein values. Abdominal computed tomography showed presence of nodular contour in liver, consistent with cirrhosis in combination with multiple right pleural base and right hilar masses, highly concerning for malignant lesions. Also showed distal esophageal and gastroesophageal junction varices that can be related to common presentation of schistosomiasis. As part of the workup, one of the lung masses was biopsied and resulted with poorly differentiated adenocarcinoma of lung primary positive for CK7 and TTF-1. Co-infection of schistosomiasis with Hepatitis B virus/Hepatitis C virus infection causes advanced liver disease and worsens the outcome, especially with higher viral load titers, which increasesthe mortality rate through an increased incidence of liver cirrhosis and hepatocellular carcinoma. The outcome of liver diseases depends on the underlying causes, host immune response and concomitant infections. In patients with an extensive disease, few therapeutic opportunities are available. Vaccination for prevention has been proved to protect this patient from catastrophic infection consequences. In this case, tumor marker elevations correlate with worse prognosis and increased recurrence rates. Patient underwent treatment and follow-up with oncology team for lung cancer. We can see the challenges physicians face to quickly identify and diagnose such unusual schistosomiasis combined with hepatitis infection that is rare in non-endemic areas. As prevalence of natural disasters, exposure on endemic areas and floodwater can increase the incidence of those infections causing illness when used for daily basis activities. Sometimes these infections go unnoticed because of how rare they are and not typically present with a CLD stigmata. Hence, this report reinforces that the consistent medical follow up and monitoring of symptoms is fundamental for successful diagnosis and disease treatment.

**OP 3**

**Title:** Recurrent tensional pneumothorax was the key to my diagnosis. A rare and underdiagnosed disease on a 76- year-old-patient with Chronic Obstructive Pulmonary Disease.

**Authors:** Angélica Ludena-De Freitas, MD; Leosbel Hurtado, MD; Silvia-Sánchez, MD

**Abstract:**

Alpha-1 antitrypsin deficiency (AATD) presents characteristically in thirty-year-old patients with hepatic dysfunction and chronic obstructive pulmonary disease (COPD). Phenotypic expression of AATD varies within families but is well-known that smoking is the most important factor in accelerating the development of COPD, where emphysema is increased four- to fivefold . AATD is diagnosed by low serum concentration of alpha-1 antitrypsin, being the most common allele PI*M and the most pathogenic allele PI*Z. About 95% of patients with severe AATD are homozygotes PI*ZZ, panacinar emphysema is the dominant lesion, characterized by acinus uniformly involved, resulting in loss of elastic recoil and airspace attachments to small poorly supported airways. Human neutrophil elastase, which overcome the antielastase defenses of the lungs and reaches the elastic fibers in the alveolar wall, cause elastin degradation and give rise to the diagnoses. Failure to recognize the association between COPD and AATD leads to underdiagnosed cases. A delay of 7.2 years between the onset of symptoms and diagnosis of this condition has been documented;43% of patients seeing at least three physicians and 12% of them seeing 6-10 physicians before the correct diagnosis was made. We highlight this case to increase awareness and early recognition by clinicians. A 76-year-old male with past medical history of arterial hypertension, left sided tensional pneumothorax, pulmonary emphysema, and former smoker, who came to our emergency department due to sudden shortness of breath and sharp chest pain of one day of evolution that developed while repairing his car. Smoking history was remarkable for 141 pack-years, quitting seventeen years ago and the family history discovered three brothers with COPD and a deceased mother due to pneumonia. Laboratories reported arterial blood gases with a compensated chronic respiratory acidosis with a concomitant metabolic alkalosis. Hepatic enzymes were unremarkable and human immunodeficiency virus and hepatitis panel were non-reactive. Chest X-Ray reported right-sided pneumothorax with a left deviation of the trachea and mediastinum; in addition a computed tomography (CT) of the chest showed multiple bullas in the lungs bilaterally. A diagnosis of right lung spontaneous pneumothorax was made and chest tube was placed. After twenty-four hours, the patient presented with acute respiratory distress and required mechanical intubation . Intravenous fluids and empiric antibiotics were initiated. He was later removed from mechanical ventilator obtaining 95% oxygen saturation on a 50% Venturi mask. A follow up Chest CT without contrast reported trace right pneumothorax, paraseptal and centrilobular emphysema in bilateral upper lobes with apical fibrotic opacities and trace right pleural effusions. Due to multiple features of AATD such as two spontaneous pneumothorax events, family history of brothers with COPD and imaging results, genetic testing was completed. Results were positive for a very rare genotype M/Z, making our patient a carrier of the disease with one normal gene (M) and one defective gene (Z). Medical intuition is paramount to connect information and arrive to a proper diagnosis. Lifestyle changes such as quitting smoking, replacement therapy as well as specific counseling for the patient and his family is recommended.

**OP 4**

**Title:** Eyes on the Prize: Ocular Syphilis on A Newly Diagnosed HIV Patient

**Authors:** Tania Aguila-Rivera, MD; Steven Vélez-Pastrana, MD; Ethyann Garcia-Mateo, MD; Jorge Bertran-Pasarell, MD

**Abstract:**

Syphilis, an infection caused by the spirochete bacterium Treponema pallidum, is a sexually or congenitally transmitted disease exhibiting a wide range of clinical manifestations that can affect multiple organ systems and has seen a concerning rise in incidence in recent years. Ocular syphilis is a rare manifestation that may develop at any stage of the infection. According to the Centers for Disease Control and Prevention (CDC), ocular manifestations were reported in just 0.60% of all syphilis cases in the United States. These cases primarily affect men, particularly those who have sex with men, and individuals co-infected with Human Immunodeficiency Virus (HIV). We present a case of ocular syphilis in a patient with newly diagnosed HIV. A 45-year-old male with a recent HIV diagnosis presented with a two-week history of vision disturbances, including the perception of a dark spot and progressive vision loss in his left eye. He denied experiencing painful vision, headache, photophobia, neck stiffness, fever, genital lesions or focal neurological deficits. The patient attempted self-treatment with Azithromycin ophthalmic drops, which yielded minimal improvement in vision. Physical examination was remarkable for decreased visual acuity and injected conjunctiva on the left eye. Fundus examination was remarkable for pigmentary changes at the macula of the left eye. Laboratory tests indicated a normal complete blood count and preserved renal function. Serology was remarkable for positive HIV Ag/Ab, positive fluorescent treponemal antibody absorption antibodies (FTABS) and a reactive rapid plasma reagin (RPR) with titers >1:512. The patient refused lumbar puncture to evaluate for further neurological involvement. He was diagnosed with left eye syphilitic maculopathy. Infectious disease service was consulted, and he was initiated on an intravenous Penicillin G regimen, which the patient tolerated well. He reported improvements in ocular symptoms but persisted with mild visual deficits. He was subsequently discharged to complete 14 days of therapy with Penicillin. Ocular syphilis remains a rare yet severe complication of syphilis, which, when left untreated, can lead to long term eye and vision complications, potentially resulting in blindness. Its incidence is steadily on the rise, particularly among specific demographic groups such as men who have sex with men and individuals diagnosed with HIV. Patients with HIV infection are at a higher risk of rapidly progressing to neurosyphilis and ocular syphilis when they acquire the infection. This case highlights the importance of maintaining a vigilant and proactive approach in identifying cases of ocular syphilis, especially in patients co-infected with HIV, who may present with unexplained visual complaints. Rapid recognition and the prompt administration of appropriate treatment are critical in effectively managing visual symptoms and mitigating the potential complications associated with this condition.

**OP 5**

**Title:** A Small Variant of Lady Windermere's Syndrome in Puerto Rico: Reanalyzing Characteristics of Non-tuberculous Mycobacterial Infection

**Authors:** Tyffany Sebastian

**Abstract:**

Lady Windermere Syndrome (LWS) is a non-tuberculous mycobacterium lung condition, commonly caused by Mycobacterium avium complex .LWS patients voluntarily suppress their cough,which has been proposed to play a role in the development of a NTM lung infection secondary to retained mucus.A prospective study identified patients with NTM lung disease to be tall, lean,white elderly women,who can have scoliosis,pectus excavatum,or mitral valve prolapse.The incidence and prevalence of NTM lung disease is rising worldwide due to aging population,increased use of immunosuppressives,and prevalence of COPD, and bronchiectasis.The goal is to raise awareness of LWS as a diagnoses that should be considered in patients with clinical findings suggesting Tuberculosis (TB) and bring attention to the different clinical characteristics this patient possessed.While,the patient fitted the clinical picture of NTM pulmonary infection based on symptoms, imaging, and microbiologic findings,her demography and morphological features were not completely consistent with published findings.We report a case of a short immunocompetent 81-year-old thin Hispanic female with recurrent cough, who was misdiagnosed with TB and treated. A 81-year-old female with bronchiectasis,COPD,and allergic rhinitis.Patient was being followed outpatient for chronic productive cough.A chest CT scan showed bronchiectatic changes with nodular opacities more prominent in the right middle lobe and lingula.PET scan remarkable for pulmonary nodules, bilateral hypermetabolic lobar infiltrates, and nodular opacities more prominent in the right middle lobe and lingula.Lung biopsy with Acid Fast Ziehl,ÄìNeelson stain was positive for Acid fast bacilli.Consequently, patient started on RIPE therapy for suspected TB two weeks prior to admission.Patient presented with generalized abdominal pain, nausea, emesis, anorexia, and sensation of abdominal fullness.Patient with a petite frame with a height of 4ft 3in (129.54 cm) and a weight of 81 pounds.Abdominal exam revealed RUQ and RLQ tenderness without guarding.She also complained of a chronic cough but no coughing was witnessed.The chest remarkable for pectus excavatum.CMP remarkable for transaminitis-AST:1509 IU/L, ALT:707 IU/L,T.bilirubin:2.6. RIPE therapy was placed on hold.CT abdominal/pelvic imaging remarkable for bilateral bronchiectasis involving the right middle lobe and lingula .CT thorax revealed cylindrical bronchiectasis.Sputum AFB stain smear positive twice, but MAC was not detected by GeneXpert.TB was ruled out.Mycobacteria culture was remarkable for MAC by DNA probe.Based on meeting criteria established by IDSA/ATS for diagnosis of NTM-pulmonary disease,RIPE therapy was discontinued.Transaminitis resolved and the patient was discharged home. More clinicians are treating NTM infections and correct diagnosis is paramount for successful treatment of this uncommon pathology,which can be mistaken for TB as in this case.Patient's height of 149.8 cm is below 164.7 and 166.94 cm average reported in Kim et al and Kartalija et al . Regarding demographics, Kim et al found 95.2% of cases with NTM lung disease to be females and 90.5% to be white. Kartalija et al found 85% to be females and 93% to be white.While our patient was female she was not white. This case highlights morphological and demographic variations in a patient with LWS and NTM lung disease in Puerto Rico and this is important to consider to provide the best care and pharmacological treatment and avoid iatrogenic harm.

**OP 6**

**Title:** Disseminated Histoplasmosis with Hemophagocytic Lymphohistiocytosis (HLH) in an Immunocompromised Host

**Authors:** Eduardo Malavé, MD; D. Santos-Sierra, MD; N. Santiago-Santos, MD; G. Jove-Gotay, MD; M. Torres-Pérez, MD

**Abstract:**

Histoplasma capsulatum is a dimorphic fungus present worldwide in pockets of endemicity, particularly associated with the United States Ohio and Mississippi river valleys, as well as Southeastern states. In immunocompromised patients, Histoplasmosis can become disseminated, affect multiple organ systems, and precipitate a life-threatening disorder of excessive immune activation, inflammation, and tissue destruction. We describe the case of a 35-year-old male with known medical history of Human Immunodeficiency Virus (HIV) since 12 years ago, with last CD4 count at 29, that presented to the emergency department with several-day history of high fever, generalized weakness, fatigue, poor appetite, persistent diarrhea and a 30-pound weight loss in the past 3 months. The patient had been previously hospitalized due to pneumonia and, after a non-diagnostic preliminary results from bronchoscopy, was discharged with presumed diagnosis of Pneumocystis jirovecii pneumonia and Trimethoprim-Sulfamethoxazole as management. Physical examination at the moment of arrival was remarkable for fever of 39.5 ¬∞C, sinus tachycardia, mild shortness of breath, dry cough and hepatosplenomegaly. Initial laboratory testing revealed pancytopenia (WBC 1.38 x 10^3 uL, Hgb 6.2 g/dL, Platelets 37 x 10^3 uL, Absolute Neutrophil Count 730 cells/uL). Abdominal computerized tomography revealed hepatosplenomegaly and retroperitoneal adenopathy. Patient was admitted with diagnoses of Pancytopenia and suspected Pneumocystis jirovecii pneumonia. Upon further record reviewing from previous hospitalization, it was discovered that urine and serum antigen were reported positive for Histoplasma. Considering the patient's clinical and laboratory findings, he was diagnosed with Disseminated Histoplasmosis. Infectious Diseases and Hematology-Oncology services were immediately contacted. Peripheral blood smear showed neutrophilic inclusions, schistocytes and macroplatelets, the former highly suggestive of Histoplasmosis, and the latter suggesting Disseminated Intravascular Coagulopathy (DIC). Given results of fungal cultures can take up to 8 weeks, a bone marrow biopsy and aspirate was performed, resulting in numerous intracellular fungal yeast organisms, as well as several stains that were positive to intracellular fungal yeast. Due to concerning bone marrow invasion by H. capsulatum causing pancytopenia, and considering high-grade fever, hepatosplenomegaly, hypertriglyceridemia, hypofibrinogenemia, hyperferritinemia, and elevated soluble CD25 levels (> 2500 u/mL), a diagnosis of Hemophagocytic Lymphohistiocytosis (HLH) was made. Patient was started on oral Itraconazole due to intravenous liposomal Amphotericin B medication shortage, but was transitioned to the latter antifungal once available. After 4 weeks of treatment, the patient showed clinical improvement, with resolution of DIC and pancytopenia, as well as improvement of symptomatology. Patient was discharged with oral Itraconazole and antiretroviral therapy. This case illustrates the potential of Disseminated Histoplasmosis as a causative agent of HLH in an immunocompromised host. HLH is a condition characterized by dysregulated immune activity resulting in malignant inflammation and multi-organ failure. It is most commonly precipitated by viral infections (particularly EBV), but on rare occasions it can be triggered by other pathogens, including Histoplasma. Patients, particularly immunocompromised, presenting with fever and cytopenia must be evaluated for systemic syndromes. Given HLH can mimic several other pathologies, early recognition with appropriate and timely treatment, can avoid further worsening of this life-threatening condition.

**OP 7**

**Title:** Pyogenic liver abscess, an unusual complication of post-COVID-19 infection

**Authors:** Wilfredo Pedreira-García, MD; José J. Irizarry-García, MD, Juan Lemos, MD

**Abstract:**

*Introduction:* A pyogenic liver abscess is a purulent filled mass commonly caused by bacteria or parasites. These organisms can infect the liver through various mechanisms such as continuous spread of infected nearby tissues, penetrating trauma to the liver, or hematogenous spread. Treatment involves surgical or percutaneous drainage and antibiotics. Information regarding the above organism is well established, however there is limited evidence of a viral cause. Since the COVID-19 pandemic, there have been few case reports mentioning an association between COVID-19 infection and the development of liver abscess. The possible mechanisms of liver injury include direct cytotoxic effects of COVID-19 on hepatocytes through ACE2 enzyme, and indirectly through the release of an inflammatory storm leading to hepatic injury. COVID-19 is known to be a thrombotic disease leading to tissue ischemia. A combination of the above mechanisms could contribute to the development of liver abscess. We herein present the case of a middle-aged male who developed a pyogenic liver abscess one week after recovering from COVID-19, despite having no previous exposure or risk factors for bacterial or parasitic infection. *Case Description:* Case of a 55-year-old male with steatohepatitis, and recent one-week COVID-19 infection treated with nirmatrelvir/ritonavir with worsening dyspnea since the start of COVID-19 infection. Review of systems were positive for chills at night, headaches, watery diarrhea, and vomiting; negative for abdominal pain or jaundice. Vital signs with fever and hypoxemia. Laboratories with leukocytosis 27.4x10-3/ul, hyperbilirubinemia 1.6 mg/dl, AST 34, and ALT 29. Viral respiratory panel negative. Physical examination remarkable for an acutely ill male, speaking in short sentences, with lungs fields clear to auscultation. Abdomen with palpable hepatomegaly, abdomen soft and depressible, normoactive bowel sounds, no rebound or tenderness to palpation. Chest film with atelectatic changes in the right lower lobe and elevated right hemidiaphragm. Abdominopelvic CT positive for two large hepatic abscesses measuring 7cmx12cmx6cm and 3.5cmx1.4cmx6.4cm, no biliary duct dilation, no diverticulosis. Patient was started empirically with piperacillin/tazobactam for coverage of enteric organisms. Interventional radiology was able to drain the purulent material and placed a percutaneous drainage. Resulting cultures from abscess grew no organisms. Stool workup was negative. Blood cultures without microorganism growth. After intervention the patient was discharged to complete a prolonged course of intravenous antibiotics with resolution of symptoms. *Discussion:* COVID-19 complications have presented in a variety of ways but very few as a pyogenic liver abscess. The mechanism of direct cytotoxicity, microvascular injury, and cytokine storm could explain the development of the pyogenic abscess. Although in this patient, curiously, he did not present with hepatic injury. Also, one would expect that the predominant complaint would be abdominal pain in pyogenic liver abscess, but atypical presentations can arise as seen in this case. The most common and well documented etiologies for pyogenic liver abscess are of bacterial or parasitic origin. In our case, there was no evidence of a bacterial or parasitic cause to explain such abscess. For this reason, physicians must be aware that post viral complications, although rare, can induce pyogenic liver abscess.

**OP 8**

**Title:** Diffuse Cavitating Pulmonary Meningotheliomatosis: A Rare and Elusive Pathology

**Authors:** Christian Torrech-Santos, MD; Pérez-Mitchell, MD; J. Ramírez-Gómez, MD; I. Ortíz-Vélez, MD; K.C Padilla-Rodríguez, MD; R. Fernández-González, MD

**Abstract:**

Diffuse pulmonary meningotheliomatosis (DPM) is an exceptionally rare parenchymal lung disease that predominantly affects young to middle-aged females. It is distinguished by extensive bilateral minute pulmonary meningothelial-like nodules (MPMNs) on imaging, which may seldomly cavitate. These findings are generally incidentally found on imaging due to its asymptomatic course, however, patients may present with dyspnea and/or cough. Cases of DPM are few and pathogenicity associations have not yet been established but some cases display an association with malignancy. Tissue biopsy is strictly necessary for diagnosis given its wide differential diagnosis. A 45-year-old female with a past medical history of hypothyroidism and hyperlipidemia is referred to pulmonary medicine clinics due to abnormal radiologic imaging findings. The patient refers to occasional bouts of dyspnea with no temporal association of years of evolution for which she uses budesonide/formoterol as needed. She is a nonsmoker, without overt exposure or occupational risk factors. A high-resolution chest CT scan revealed innumerable bilateral thin-walled pulmonary cysts with thickened interlobular septa, suggestive of lymphangioleiomyomatosis (LAM). Vascular endothelial growth factor levels and rheumatoid panel were nondiagnostic, and pulmonary function testing revealed normal FEV1/FVC, moderate air trapping, and increased airway resistance. An open biopsy of the right lung was performed and pathological examination revealed meningothelial nodules, with histologic findings supporting the diagnosis of cavitating diffuse pulmonary meningotheliomatosis. Literature describing DPM is very limited, with only 25 cases documented through 2016. Since the majority of patients are asymptomatic, further research into the pathophysiology and possible etiologies involving the development of DPM and other MPMNs may shed light on their clinical significance and prognosis once symptoms become evident. We aim to raise awareness of MPMNs to improve the identification of clinical patterns and findings related to disease progression as well as establish treatment options. The documentation of these cases is needed to help to establish correlations with other possible pulmonary and extrapulmonary manifestations of this elusive disease which may guide further treatment and prognosis.

**OP 9**

**Title:** Unusual Pulmonary Complication in a Patient with Microscopic Polyangiitis and SARS Covid 19

**Authors:** Gerardo E. Cintrón-Vélez, MD; G. Rios-Grant, MD; A. Laureano-Cuadrado, MD

**Abstract:**

*Introduction*: Microscopic polyangiitis (MPA) is a necrotizing vasculitis that affects small arteries. It can affect different organ systems and have a wide range of disease severity. The most affected organs are the kidneys and the respiratory tract. Onset is around 50 to 60 years of age, with a male predominance (1.8:1). Pulmonary manifestations include nodules, alveolar hemorrhage, and respiratory failure. Pleural involvement is infrequent, but some patients may develop pleural effusions, wall thickening, or rarely pneumothorax. *Case presentation:* This is the case of a 32-year-old female, G1P0A0 on her 29th week of pregnancy, with medical history of MPA, chronic glomerulonephritis and hypothyroidism. She presented to the emergency department with a persistent, dry cough that started two weeks prior to admission. The cough had no production of sputum or blood and was unresponsive to home medications. She recently tested positive for a Covid-19 antigen test. The patient denied fever, chills, abdominal pain, nausea, vomiting, epistaxis, arthralgia, myalgia, hematuria, or skin lesions. She had been receiving rituximab every six months for five years but had the treatment discontinued during pregnancy. Her vital signs and physical exam were unremarkable. Initial chest X-ray showed a 3.3 cm ring-like density projecting over the left perihilar region, as well as subtle opacities projecting over the lower lobes. A chest CT without contrast was performed, which showed a small hairline pneumothorax. Initial laboratories showed proteinuria. Recent laboratories ordered by OPD Rheumatologist included a serologic test for p-ANCA, which was positive at 2.2, sedimentation rate elevated at 54 mm/hr, and serum creatinine levels at 1.48 mg/dl. The patient was admitted for supportive care. Consulting services were uncertain about the etiology of lung manifestations (MPA or Covid-19). The patient was placed on a non-rebreather mask and her home prednisone dose was increased from 5 mg to 20 mg daily. A repeat chest CT scan showed a mild interval increase in volume of the previously visualized right pneumothorax, which remained small. The patient was not a candidate for aspiration or chest tube placement. After assessing risk versus benefits it was determined that a repeat CT scan represented a risk for further exposure of radiation to mother and child. A thoracic ultrasound was performed and demonstrated no pneumothorax in the right upper chest. The patient was discharged with follow-up care by her PCP. *Discussion*: Pneumothorax is a rare complication of MPA and its incidence is unclear. Likewise, pneumothorax has been shown to occur in patients with Covid-19. However, most cases occur in patients that are critically ill. Current data reports variable rates (2 to 40%), with higher incidence in Covid-19 patients who are mechanically ventilated. The infrequency of pneumothorax as a complication in patients with MPA or Covid-19 makes this a challenge for diagnosis.

**OP 10**

**Title:** Abrupt and lethal rare complication: A case report of a 32-year-old male who suffered from pyogenic ventriculitis

**Authors:** Alexis Torres-Rodriguez, MD; Angélica Ludena-De Freitas, MD

**Abstract:**

Pyogenic ventriculitis is a severe complication of cerebral abscesses, where an abscess ruptures into the brain's ventricles. Risk factors are associated with compromised immunity, including conditions such as cancer, human immunodeficiency virus, diabetes, and intravenous drug abuse. This condition often results from extensive, deep-seated, or multiloculated abscesses and carries a high mortality rate, ranging from 30% to 85%, with 60% of survivors experiencing lasting neurological sequelae. Early recognition is crucial, but available data on its clinical and imaging features are limited. Our case report sheds light on the clinical and neuroimaging aspects of pyogenic ventriculitis occurring in a hospital setting, with specific intervals, and as a complication of extensive cerebral abscesses involving atypical locations. We present the case of a 32-year-old male with a history of chronic intravenous drug abuse and homelessness. He arrived at the Emergency Room with muscle aches, sore throat, and multiple infected ulcers. Despite participating in a methadone program for four months, recent somnolence and hypoactivity raised concern. Initial examination revealed a mildly hypoactive, afebrile patient with a Glasgow Coma Scale (GCS) of 14/15, stable vital signs, and no meningeal irritation or focal neurological findings. Multiple infected ulcers with purulent drainage were noted on his extremities, with preserved pulses and range of motion. Laboratory results were mostly unremarkable, except for an elevated erythrocyte sedimentation rate. Initial head computer tomography (CT) reported no intracranial abnormalities. The patient was admitted for management of his infected ulcers that included culture collection, intravenous antibiotics, and wound care. During the first week, signs of improvement were observed. However, on day ten, he experienced a sudden clinical deterioration that included fever episodes, decreased alertness, apathy, withdrawal, and a reduced GCS score of 10/15. Focal neurological deficits were noted including horizontal nystagmus, leftward eye deviation, vertical gaze palsy, and right nasolabial fold flattening. A new head CT with and without contrast revealed ill-defined lesions in the right frontal and occipital lobes surrounded by edema and communicating hydrocephalus. A subsequent magnetic resonance imaging (MRI) diagnosed multiple intraparenchymal brain abscesses and ventriculitis. Unusual features included abnormally enhancing patterns involving the fourth ventricle and left frontal periventricular region. Lesions were identified in both infra and supratentorial regions, including the midbrain and prepontine cistern. The largest lesion was located at the right side of the genu and splenium, affecting the corpus callosum. Multiple blood culture results remained negative, and a transthoracic echocardiogram showed no vegetations and normal ventricular systolic function. By the third week, the patient,Äôs cognitive decline rapidly worsened, leading to coma. Early recognition and timely intervention of pyogenic ventriculitis are challenging but necessary due to its poor prognosis and high morbidity and mortality rates. In some cases, this condition can manifest abruptly with sudden clinical deterioration, as a management complication of intracranial abscesses. Commonly, pyogenic ventriculitis can develop from distant or unknown sources. Brain MRI is essential for management guidance, which may include a reevaluation of treatment strategies and interventional approaches. MRI aids in the comprehensive evaluation of hidden lesions, disease extent, severity, and prognosis.

## POSTER PRESENTATIONS – CLINICAL VIGNETTES

| | | |
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| V-01 | Rey Aponte Rivera, MD | Hepatic Hydrothorax with Right Lung Collapse in a Patient with Chronic Liver Disease: A Case Report |
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| V-03 | Alexander Alfaro, MD | Natural Doesn,Äôt Mean Harmless: The effects of nature,Äôs semaglutide (berberine) and refractory hypoglycemia |
| V-04 | Abdiel Alicea, MD | Successful treatment of Hailey-Hailey disease with Adalimumab |
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**Poster No.:** V-01
**Title:** Hepatic Hydrothorax with Right Lung Collapse in a Patient with Chronic Liver Disease: A Case Report
**Authors:** Rey Aponte-Rivera, MD; Yatzel Fuentes-Rosa, MD; Frances Nieves, MD; Eva Rivera, MD; Milaris Cordero-Sánchez, MD; Vicente Covas-Rosario, MD; Alma Corbala-Contreras, MD

**Abstract:**
Hepatic hydrothorax is a challenging disease and uncommon complication in patients with liver disease. Five to fifteen percent of patients with cirrhosis develop hepatic hydrothorax, which worsens prognosis by increasing mortality due to the severity of its symptoms. It may result in dyspnea, hypoxia, and spontaneous infection, among others. Initial treatment is based on a sodium-free diet together with diuretics, and therapeutic thoracentesis or paracentesis. The pathophysiology of hepatic hydrothorax has been proposed based on the presence of diaphragmatic defects, although the type of defect was found to not correlate with the volume occupied by the pleural effusion. Thus, hepatic hydrothorax presents with limited possibilities of strategic management that will hinder its recurrence. Concerns are raised on the need of treatment guidelines given the complexity of its clinical manifestations. In the setting of hepatic hydrothorax with concurrent lung collapse and ascites, medical approach was challenged.

Herein we report a case of a 59-year-old female patient with a PMHx of intellectual disability, Hx of hepatitis C, cirrhosis, and convulsions is brought to our Institution by family members due to having SOB and lower extremity edema for several days. On PE, the patient was found with symmetric dullness resonance, decreased amplexation, no adventitious sounds, and decreased breath sounds on right side of thorax. CXR showed complete opacification of the right hemithorax with mediastinal shift to the left, likely representing a large pleural effusion. Abdominal ultrasound confirmed chronic liver disease with portal hypertension including moderate to large amount of ascites and splenomegaly. Chest CT confirmed large right-sided pleural effusion with right lung collapse and mediastinal shift to the left and confirmed chronic liver disease with splenomegaly, multiple varices with enlargement of the visualized portions of the portal and splenic veins, and large amount of free fluid. Laboratory analysis showed prolonged PT/PTT, hyperbilirubinemia, with normal transaminases. MELD-Na score of 21 points with an estimated 7-10% 90-day mortality. The patient was admitted to our services due to D-CLD and large pleural effusion. Gastroenterology services were consulted and recommended GDMT for D-CLD including IV antibiotics to prevent SBP was started. Interventional Radiology services was consulted for CT guided right thoracentesis and a right pleural catheter was inserted. Light yellow fluid was noted in pleural catheter, for which a high suspicion for right sided hepatic hydrothorax arose. Pneumology services consulted and fluid analysis showed SAAG of 1.3 g/dL with ascites likely due to portal hypertension, confirming suspicion of hepatic hydrothorax. Pathologic fluid analysis was negative for malignancy and found with benign mesothelial cells and lymphocytes present. Once diagnosis was confirmed, the pleural catheter was removed in order to avoid further deterioration due to hepatic hydrothorax. Patient progressed with GDMT for liver disease and was discharged home without any complications. The importance of this case is to bring awareness to early diagnosis and management of hepatic hydrothorax in order to aid with life expectancy.

**Poster No.:** V-02
**Title:** Albuterol Stress: Beta agonists as unexpected cause of medication induced Takotsubo cardiomyopathy in a patient with Asthma.
**Authors:** Ian Crespo-Orta, MD; J. Escabi-Mendoza, MD

**Abstract:**
Takotsubo cardiomyopathy (TCM) is an acute and often reversible left ventricular (LV) dysfunction, more common in women, triggered by emotional or physical stressors. TCM clinically presents, often resembling acute coronary syndrome (ACS), with electrocardiographic changes and troponin elevation without evidence of obstructive coronary artery disease on coronary angiography. The pathophysiology of TCM remains unclear, but exaggerated sympathetic nervous response has been proposed as a cause for myocardial dysfunction in a variety of regional ballooning patterns. Uncommonly, one risk factor for TCM is asthma, mainly due to beta-agonist use. It has been described that increased beta-adrenergic signaling and high sensitivity to catecholamines-induced toxicity are mechanisms associated with TCM, suggesting a complex interaction between sympathetic innervation, myocardial beta-receptor density and catecholamine sensitivity.

We present the case of an 81-year-old male patient with a relevant past medical history of hypertension, obstructive sleep apnea and asthma, who presented to the emergency room (ER) with complains of worsening shortness of breath and dyspnea on exertion, associated to chest tightness and discomfort. He reported increased ER visits due to asthma exacerbation with excessive use of Albuterol therapies, approximately more than 20 times daily on the days prior to the event. Initial ECG demonstrated >1mm ST-segment elevation on contiguous leads I and aVL. Immediate bedside echocardiography showed multiple segmental wall motion abnormalities including akinesia of the anterolateral and apical walls. High-sensitive serial troponins were markedly elevated with a peak of 1200 ng/L (abnormal cutoff >21ng/L) with significant delta change consistent with acute myocardial injury. Emergent coronary angiography showed nonobstructive coronary artery disease and elevated left ventricular end-diastolic pressure consistent with decompensated congestive heart failure. A comprehensive echocardiogram demonstrated a left ventricular ejection fraction (LVEF) of 20-25%, no significant valvulopathies and with marked left ventricular ballooning with akinesia to dyskinesia of all the mid and apical segments of the left ventricle, suggestive of the typical apical phenotype variant of TCM. In view of absence of clinical manifestations of an infectious process and negative inflammatory markers, acute myocarditis was less favored. The patient was started on optimal guideline-directed medical therapy for heart failure with reduced ejection fraction, including beta-blocker, angiotensin receptor-neprilysin inhibitor and mineralocorticoid receptor antagonist during hospitalization and upon discharge. Asthma therapy was adjusted by the pneumology specialist with the modification of albuterol for levalbuterol in the addition of inhaled glucocorticoids and appropriate patient education. Upon his follow up echocardiography, two- weeks after initial presentation, there was evidence of a complete improvement of the above regional wall motion abnormalities, with normalization of the LVEF to 65-70%.

In conclusion, it is crucial to create awareness that overuse of beta-adrenergic medications could precipitate TCM. Our case also highlights the importance of adequately managing asthma with a proper use of beta-agonists agents, in an effort to decrease the incidence of TCM in the asthmatic population. Consequently, if a patient taking albuterol presents with chest pain and/or equivalent complaints, beta-agonist induced TCM should be considered in your differential diagnosis.

**Poster No.:** V-03

**Title:** Natural Doesn't Mean Harmless: The effects of nature's semaglutide (berberine) and refractory hypoglycemia

**Authors:** Alexander Alfaro-Rivera, MD; Jose J. Irizarry-García, MD; Wilfredo M. Pedreira-García, MD; Adrián Chico-Moya, MD; Frances A. González-Reyes, MD; Thomas Vazquez-Suarez, MD; Charmaine Pérez-Del Valle, MD

**Abstract:**

*Introduction:* It's no secret that the obesity epidemic has had a major impact on public health. In recent years, the number of people who are overweight or obese has increased, leading to a host of health problems, including diabetes, heart disease, and stroke. However, a new drug called semaglutide may offer hope for those struggling with obesity. Studies have shown that semaglutide can help people lose weight and keep it off, making it a potentially valuable tool in the fight against this dangerous epidemic. However, it is not universally accessible,which can lead people to search for other alternatives for weight loss. Unfortunately, many people have turned to ,Äúnatural ozempic,Äù called Berberine. Berberine is a natural supplement found in goldthread and oregon grapes. It has been marketed as a weight losing drug, and alternative to ozempic. However, as most supplements, they are not FDA approved and not regulated. Little is known about the recommended dosing and side effects of this supplement. In this case, we present an obese patient who was using Berberine and developed unexplained refractory hypoglycemia. *Case Description:* A 38 year-old male with a history of anxiety, obesity, and GERD presented with symptoms of dizziness, increased sweating, mild tremors, and confusion of 2 days of duration. Despite adequate PO intake and increased carbohydrate consumption, the patient was found to be hypoglycemic upon follow-up with the primary physician. At the emergency department, the patient received multiple dextrose bolus with persistent hypoglycemia requiring admission to the internal medicine ward. After multiple IV dextrose, the patient's alertness improved, but blood sugar values ranged 50-60. The patient was found to have started a natural supplement for cholesterol and weight control known as a natural Ozempic, which contained Berberine, an active ingredient that increases insulin sensitivity, reduces gluconeogenesis from the liver, and helps with lowering of cholesterol levels. The half-life of this medication is approximately 6-12 hrs. After 48 hours of observation and management with a Dextrose containing intravenous solution with serial CBGs, the patient became euglycemic with resolution of symptoms. *Discussion:* This case highlights the potential dangers of using natural supplements without proper medical supervision. While supplements like Berberine can have health benefits, they also come with potential side effects such as hypoglycemia and gastrointestinal changes. With the increasing use of diabetes medications for weight loss, it is important for healthcare providers to be aware of the potential for hypoglycemia events in patients using natural supplements. Furthermore, this case underscores the importance of thorough history taking to identify potential clues that may lead to the correct diagnosis and treatment plan. It is crucial for patients to inform their healthcare providers of any natural supplements or alternative treatments they may be using in order to avoid potentially disastrous outcomes.

**Poster No.:** V-04
**Title:** Successful treatment of Hailey-Hailey disease with Adalimumab
**Authors:** Abdiel Alicea, MD; José González-Chávez, MD

**Abstract:**
Hailey-Hailey disease, also known as Benign Familial Pemphigus, is a rare autosomal dominant disorder caused by mutations in the ATP2C1 gene. Currently, there is no curative treatment and the available therapeutic strategies are not usually effective in improving the patient's quality of life and providing prolonged remissions.

A 43-year-old man presented to the dermatology clinic with a history of crusted, scaly, erythematous plaques in the axilla, mid-lower back, and neck. The diagnosis of Hailey-Hailey disease was confirmed through both clinical manifestations and a skin biopsy. Over the span of six years, the patient received a series of therapies aimed at controlling the condition, including intralesional steroids, oral antibiotics, antifungal creams, zinc oxide cream, Aquaphor ointment, and Hibiclens scrub. These medications only provided little improvement, leading the patient to return with unremitting symptoms. Upon reviewing the literature, we found a case of Hailey-Hailey disease whose lesions drastically improved following the initiation of Adalimumab, a monoclonal antibody against TNF-…ë. This treatment option was discussed with the patient, to which he agreed to initiate. Adalimumab was initiated with a subcutaneous induction dose of 80 mg followed by a subcutaneous maintenance dose of 40 mg every 14 days. Following the induction dose, a 90-100% improvement was observed within the first 2 weeks, particularly in the mid-lower back and to a somewhat lesser extent in the axillas.

The approach to managing Hailey-Hailey disease relies on anecdotal non-specific therapies from unconventional applications of topical, systemic, and interventional therapies. In our patient, Adalimumab appeared to be effective in treating a severe case of Hailey-Hailey disease. We hereby report an additional case to that already reported in the literature.

**Poster No.:** V-05
**Title:** When the conversion goes backward: Unusual case of AML converted to MPN.
**Authors:** Gloriana Aponte-Flores, MD; Jennifer Ramos-García, MD; Yaina Sierra-Cordova, MD; William Marrero-León, MD; Cristian Rodríguez-Arocho, MD; Flor García-Ricardo, MD

**Abstract:**
Secondary acute myeloid leukemias (AMLs) evolving from an antecedent myeloproliferative neoplasm (MPN) are characterized by a unique set of cytogenetic and molecular features distinct from de novo AML. Given the high frequency of poor-risk cytogenetic and molecular features, malignant clones are frequently insensitive to traditional AML chemotherapeutic agents. The conversion of MPN to AML is extensively discussed in medical literature; however, the reverse conversion of AML into MPN is not well-documented.

We present a very unusual case of AML to MPN conversion. This is the case of a 62-year-old female with medical history of hypertension, myocardial infarction, ischemic stroke diagnosed with intermediate risk AML (normal cytogenetics and negative molecular markers, including JAK2 negative) who achieved a complete remission after induction with intensive chemotherapy with Idarubicin-cytarabine and consolidation with high dose cytarabine. Four years after induction a routine CBC showed leukocytosis (23 K/uL) with neutrophilia and thrombocytosis (619 K/uL). A bone marrow biopsy (BMB) was done and revealed trilineage hematopoiesis with moderate multilineage dysplasia without increase blast (1%), 30% ring sideroblast and no fibrosis. Cytogenetics were negative for AML recurrent abnormalities. Molecular evaluation was positive for JAK2 and TET2.

Our case suggests the possibility of a clonal evolution to MPN, likely essential thrombocythemia (ET). Age over 60 years, JAK2 mutation and history of thrombosis increase the risk for thrombotic events and bleeding. Supportive care with cytoreductive therapy and aspirin should be considered in intermediate to high-risk patients. Acquired von Willebrand deficiency must be ruled out in patients with more than 1 million/microL platelets prior to the use of aspirin due to increased risk for bleeding

**Poster No.:** V-06
**Title:** The Ultimate Run: Acute Pancreatitis as the Debut of Systemic Lupus Erythematosus
**Authors:** José Breton-Arias, MD; José Hernández-Puig, MD; Paola Laracuente-Román, MD; Tania Aguila-Rivera, MD; Mark Vergara-Gómez, MD

**Abstract:**
Systemic Lupus Erythematosus (SLE) is an autoimmune disease that affects multiple organ systems. The majority of patients will debut with specific organ involvement, most commonly with musculoskeletal, dermatological, renal, and neuropsychiatric manifestations. However, the gastrointestinal system is less likely to be involved, with symptoms occurring in half of cases. Occasionally, pancreatitis can occur as a rare complication, with an incidence rate of up to 8.2%. Typically, it manifests as widespread flare-ups in individuals already diagnosed, making its occurrence as the initial presentation exceedingly unusual. In fact, only a limited number of cases have been documented in the literature where pancreatitis precedes SLE diagnosis. Herein, we present an atypical case of a patient who initially presented with acute pancreatitis, ultimately leading to the diagnosis of SLE. A high endurance female athlete of 36-year-old without known medical history presented with hypoactivity and altered mental status hours prior admission. Upon evaluation, she was afebrile, encephalopathic, hypotensive, and tachycardic. Physical examination was remarkable for bilateral rhonchis, anasarca, distended abdomen, epigastric, and left lower quadrant pain on deep tenderness without rebound. Laboratories revealed neutrophilia, bandemia, anemia, azotemia, elevated creatinine, high anion gap metabolic acidosis, proteinuria, hypoalbuminemia, hypocalcemia, negative toxicology, normal triglycerides, elevated inflammatory markers, amylase, and lipase. Chest computerized tomography (CT) scan with intravenous (IV) contrast showed bilateral upper lobe ground-glass opacities and pleural effusions. Abdominopelvic CT scan with IV contrast showed a homogenous enhancement with surrounding peripancreatic free fluid without evidence of pancreatic necrosis associated with diffuse mesenteric edema. The patient was intubated, started on IV fluids, broad-spectrum antibiotics, and received renal replacement therapy (RRT). She was admitted into the Intensive Care Unit with the clinical impression of severe pancreatitis and acute renal failure complicated with acute respiratory distress syndrome (ARDS). After extubation, the patient reported a two-month onset of recurrent fevers, arthralgias, and facial rash. She denied toxic habits, being sexually active, or recent use of steroids. Serology was remarkable for normal serum IgG 4 levels, positive antinuclear antibodies (ANA), and hypocomplementemia of C3 and C4. Despite receiving IV fluids and nothing by mouth, her clinical condition deteriorated, prompting the use of IV methylprednisolone. A bronchoscopy was performed and revealed no evidence of bronchoalveolar bleeding. The patient continued treatment with steroids, hydroxychloroquine, and cyclophosphamide. Her renal function improved significantly after receiving multiple RRT sessions. Eventually, the patient was transitioned to oral prednisone and discharged with mycophenolate, hydroxychloroquine, and follow-up care at the Nephrology and Rheumatology outpatient clinics. Within five months of treatment, she had marked improvement and has remained in complete remission. Although uncommon, this case highlights the significance of contemplating acute pancreatitis as a potential consequence of SLE. Early recognition is pivotal during treatment and results in favorable outcomes. The rapid and appropriate medical intervention with corticosteroids played a critical role, especially in individuals without a known medical history of autoimmune diseases. Ultimately, this case serves as a reminder of the need for a high index of suspicion and a comprehensive diagnostic approach when confronted with unusual clinical presentations.

**Poster No.:** V-07
**Title:** Vesicles, Viruses, and Vascular Inflammation: Pemphigus Masquerading as Varicella-Zoster
**Authors:** Alejandro Carmona, MD; Victor M. Soto-Ayala, MD; Jadailine Bermudez-Santos, MD; Edilberto J. Ocasio-Feliciano, MD; Mark Vergara-Gómez, MD

**Abstract:**
*Introduction:* Pemphigus vulgaris has an incidence of 0.1 and 0.5 per 100,000 people worldwide. It is characterized by blister formations that may or not involve mucosal surfaces such as the oral, nasal, genital, and anal regions. Differential diagnoses include bullous pemphigoid, erythema multiforme, pemphigus herpetiformis and infection. *Case description:*
This is the case of a 42-year-old female with BehVßet,Äôs disease, diagnosed in 2019 and treated with prednisone, azathioprine, apremilast, and colchicine, who presented to the ER due to vesicles and bullae that were painful. Four months before admission, this patient developed painful vesicles over the trunk and extremities, with truncal eroded lesions. At the time, her dermatologist performed two skin blister biopsies on her left and right upper back, which yielded a neutrophilic pustule with folliculitis showing a pattern of acantholysis and ballooning. This raised the question of a viral infection, and immunostaining was positive for the presence of varicella-zoster virus in the epidermis. A course of oral acyclovir was prescribed for the treatment of varicella-zoster folliculitis, but in view of poor response, she was then hospitalized for an intravenous acyclovir course. This led to some subjective improvement in condition but no resolution. After going back to her dermatologist and undergoing additional biopsies, the findings were compatible with herpes zoster-associated erythema multiforme, with a differential diagnosis including drug eruption. The patient underwent a subsequent biopsy with direct immunofluorescent staining, which was positive for IgG, C3, kappa and lambda at epidermal intercellular space, consistent with pemphigus. Her condition continued worsening and the pustules began enlarging and eroding eventually covering parts of her arms, trunk, back and buttocks. On the physical exam, she had eroded plaques in oral mucosa, nasal mucosa, genital region, and skin bullae in different stages of healing covering approximately 25% of her body surface area. An extensive rheumatologic work-up was remarkable for HLA-B51 that can correlate with her diagnosis of BehVßet,Äôs. In-hospital biopsy yielded intraepidermal vesicle with a preservation of the basal layer or "tombstoning", consistent with Pemphigus Vulgaris. Treatment was initiated with high dose steroids 1mg/kg daily and rituximab, to which the patient showed excellent response with improved lesions throughout her body. *Discussion:*
Pemphigus vulgaris and BehVßet,Äôs disease are not pathologies that are seen frequently, and even less so in the same patient. We present an unusual case of a patient previously diagnosed with BehVßet,Äôs disease, who presented with concomitant Pemphigus Vulgaris masquerading as varicella-zoster, that failed to improve with anti-viral therapy and further progressed and worsened. This case proved challenging to diagnose due to the evolving symptoms, multiple discordant pathologic reports, and apparent overlapping of conditions. It is of utmost importance for clinicians that when patients continue to worsen despite seemingly adequate therapy and diagnostic reports, a complete reassessment of diagnoses, including history and physical exam, should be performed.

**Poster No.:** V-08
**Title:** Atypical presentation of neurosarcoidosis in a young female.
**Authors:** Marcos Chacón-Cruz, MD; Milaris Sánchez-Cordero, MD; Yatzel Fuentes, MD; Jorge Soto-Rivera, MD

**Abstract:**
Sarcoidosis is a chronic inflammatory granulomatous multisystem disease with an unknown etiology. Typically occurs in adults between 20 to 40 years old and primarily affects the lungs but can impact almost every other organ in the body. Neurosarcoidosis is characterized by inflammation and abnormal cell deposits in any part of the nervous system like the brain, spinal cord, or peripheral nerves. It most commonly occurs in the cranial and facial nerves, the hypothalamus, and the pituitary gland. It is estimated to develop in 5 to 15 percent of individuals diagnosed with sarcoidosis. Weakness of the facial muscles on one side of the face is the most common symptom. Visual and auditory changes can be noticed in combination with headache, seizures, memory loss, hallucinations, irritability, agitation, and changes in mood and behavior.

This reports a case of 59 years old female patient with past medical history of sarcoidosis, diabetes mellitus type II, hypertension, migraine who presented to Emergency Department due to urinary incontinence, ataxia, and leg weakness of one month of evolution. Three years ago, she was studied with head MRI due to same symptoms and does not present with suspicious brain lesions. As patient,Äôs new onset of symptoms, other images were ordered and cervical MRI showed short segment mildly expansile enhancing signal alteration within the cervicothoracic cord, spanning a length of 4.2 cm in craniocaudal dimension. Thoracic Spine MRI resulted with two foci of intramedullary enhancing signal alteration within the thoracic spinal cord, centered at the C1-C3 levels and at the T8-T11 levels. As there is no standard treatment, corticosteroid therapy is the first line therapy in combination with immunomodulatory drugs. Also, immunosuppressive drugs such as methotrexate, azathioprine, cyclosporin, and cyclophosphamide can be an option. Our patient received 1 gram of steroids daily until completed five doses to alleviate acute symptoms and prevent permanent spinal cord damages. Patient was discharged with Prednisone 20 milligrams daily to continue with outpatient therapy.

The diagnosis of neurosarcoidosis is a challenge in young females with atypical presentation and commonly can mistake with other pathologies with similar symptoms like brain tumors, vitamin deficiencies, paraneoplastic neuropathy, or meningitis. The prognosis for patients with neurosarcoidosis varies and approximately two-thirds of those with the condition will recover completely; the remainder will have a chronically progressing or on-and-off course of illness as our patient.

This case illustrates the challenges physicians face to quickly identify and diagnose such unusual pathologies as neurosarcoidosis. Also, it points out that primary care doctors should consider this disease in the differential diagnosis in case of systemic symptoms in patients previously diagnosed with sarcoidosis. The patient was followed in an outpatient clinic and showed marked improvement of ataxia and urinary incontinence. Hence, this report reinforces that the consistent therapy, monitoring, and early detection is fundamental for successful disease treatment.

**Poster No.:** V-09

**Title:** Unmasking the Uncommon Culprit: A Case Report of Acute Generalized Exanthematous Pustulosis (AGEP) Induced by Cefepime.

**Authors:** Adrián Chico-Moya, MD; Nayrim Zayas,MD; Alexander Alfaro, MD; Charlynne De Jesús, MD; Luis Rey-Mejías, MD

**Abstract:**

*Introduction:* Acute generalized exanthematous pustulosis (AGEP) is a rare, acute eruption characterized by the development of numerous non-follicular sterile pustules on a background of edematous erythema. The eruption develops within hours or days of drug exposure, has flexures predilection, and resolves spontaneously within first two weeks after drug discontinuation. Fever and peripheral blood leukocytosis are usually present. In approximately 90 percent of cases, AGEP is caused by drugs, most often antibiotics (eg, cephalosporins, macrolides), antifungals, diltiazem, and antimalarials with a median time from medication initiation to eruptions start date of three days. This case report highlights an interesting instance of AGEP with purpose to create awareness that routinely prescribed drugs could cause this cutaneous reaction, although they continue to be considered safe drugs. *Case Description:* We report the case of a 72-year-old bedridden male with a significant history of cerebrovascular accident with residual left hemiparesis and no known drug allergies who presented with lower urinary tract symptoms and aspiration event with evolution of one-week prior admission. Initial labs revealed leukocytosis, bacteriuria on urinalysis and polymicrobial bacteremia hence, patient was admitted and started on Cefepime resulting in improved clinical picture overall. Three days later, patient started to develop multiple pink papules confluent into plaques over lateral trunk down to inner arms, groin, and thighs (flexures). Follow up labs showed new onset leukocytosis and mild eosinophilia. As result, Cefepime was discontinued, and patient was consulted to Dermatology and Allergy service who both coincided on AGEP as most likely preliminary diagnosis as per presentation, signs, and timing. Patient was prescribed with moderate potency topical steroids which after approximately 3 days of treatment and culprit drug removal, showed significant desquamation and erythema resolution. Patch testing with suspected drug may be useful in identifying the cause of AGEP however, is generally performed four to six weeks after the disease resolution. *Discussion:* AGEP is a rare, acute hypersensitivity reaction caused in approximately 90 percent of cases by drugs, most often antibiotics, calcium channel blockers, and antimalarials. It resolves spontaneously without sequelae in most patients however, mortality rate of 2% has been reported in a pharmacovigilance study in France. Since AGEP is not an allergic reaction that should be generalized to whole drug family but a cutaneous reaction, use for other cephalosporins if required should not be limited.

**Poster No.:** V-10

**Title:** Thrombotic microangiopathy after Allogenic Hematopoietic Stem Cell Transplantation: A Great Diagnostic Challenge.

**Authors:** Jeanette Cintrón, MD; Lourmarith Ortiz-Carrasquillo MD; José Machicote-Molina, MD; Humberto Lezcano-Ortíz, MD; Flor García-Ricardo, MD; Cristian Rodríguez-Arocho, MD; Alexis M. Cruz-Chacón, MD

**Abstract:**

*Background:* Patients who undergo allogeneic hematopoietic stem cell transplantation (Allo-HSCT) are at risk for multiple complications. Transplant-associated thrombotic microangiopathy (TA-TMA) is a rare complication after Allo-HSCT that sometimes is under recognized, could be associated to other complications and had profound implications on morbidity and mortality. TA-TMA consists of a triad of microangiopathic hemolytic anemia, thrombocytopenia, and ischemic damage to multiple organs. There is not a standardized diagnostic criteria for TA-TMA and it clinical features can mimic other disorders following Allo-HSCT, delaying diagnosis and representing a great diagnostic challenge. *Case report:* A 23-year-old male diagnosed with refractory T-cell acute lymphoblastic leukemia (T-ALL) in second complete remission was admitted for Allo-HSCT. Patient received myeloablative conditioning chemotherapy with total body irradiation plus etoposide, followed by peripheral blood hematopoietic stem cell infusion from haploidentical donor. He received post-transplant cyclophosphamide and tacrolimus plus mycophenolate mofetil for graft-versus-host disease (GvHD) prophylaxis. Patient had multiple complications during first month post-transplant, including oral mucositis, enteritis, hemorrhagic cystitis, and hepatic veno-occlusive disease. He recovered after treatment. WBC engraftment achieved on post-transplant day +16. Bone marrow biopsy at post-transplant day +30 revealed continued remission in normocellular marrow. Post-transplant chimerism analysis was adequate. After engraftment, absolute neutrophil counts remained adequate without recovery of Hb levels and platelet count. Patient was still requiring blood product transfusion at day +60. Labs consistent with thrombotic microangiopathy (anemia, thrombocytopenia, elevated LDH, low haptoglobin). Tacrolimus was discontinued without improvement of counts. No clinical signs of GvHD. Diagnostic workup to exclude relapse, engraftment failure, infection, autoimmune cytopenia, hemophagocytic lymphohistiocytosis (HLH), and nutritional deficiencies performed. Bone marrow biopsy at day revealed no evidence of leukemia. Post-transplant chimerism analysis remained adequate. Testing for viral infections was negative (CMV, EBV, adenovirus, HHV6). After positive Coombs test, patient received treatment with corticosteroids, intravenous immunoglobulin, and rituximab. Coombs test became negative after treatment, but cytopenia requiring transfusion persisted. Testing for PNH on peripheral blood was negative. Patient had several clinical criteria for HLH (fever, hepatosplenomegaly, elevated ferritin, and inflammatory markers) and empiric treatment with high dose corticosteroids, intravenous immunoglobulin, and IL-1 receptor antagonist was started without improvement of cytopenia. Serum levels of pyridoxine and copper were decreased and oral replacement for both nutrients given without improvement. Testing for ADAMTS13 and complement activation revealed decreased ADAMTS13 activity, consistent with atypical hemolytic uremic syndrome. After treatment with eculizumab was started, finally Hb levels and platelet count stabilized and blood product transfusion requirement decreased. *Conclusion:* This case illustrates TA-TMA, a severe and potentially life-threatening complication of Allo-HSCT. Is important to recognize and understand the clinical features and differential diagnosis of TA-TMA to ensure early detection and adequate treatment decision-making of this complication in Allo-HSCT patients.

**Poster No.:** V-11
**Title:** I Started Eating, but I'm Dying!
**Authors:** Luis Custodio, MD; Yatzel Fuentes-Rosa, MD; Jorge Soto-Rivera, MD

**Abstract:**
Hypophosphatemia can have many causes and it could lead to catastrophic consequences if was not recognized before being profound. It has a variable prevalence depending on measure ranges. During hospitalization up to 5% of patient can suffer of hypophosphatemia due to refeeding syndrome after prolonged fasting. Highest prevalence observed in alcohol user, sepsis or trauma, ketoacidosis or nonketotic hyperglycemia. Our case is about a 54-year-old male patient with a PMHx of Dermatomyositis s/p SJS, HTN, DM, DLP, SCC of R tonsil on Keytruda and Radiotherapy was sent to our Institution by his Oncologist due to patient being hypoactive and having decreased oral intake for the past four days. Patient had recently been hospitalized due to a complicated wisdom tooth extraction that resulted in tissue necrosis. 120HR, 96/54BP, 17RR, 100% O2 sat. On PE, patient with R palate cancerous lesion with purulent secretions. Patient was disoriented and hypoactive. CBC remarkable for leukocytosis with toxic granulation. BMP with with Bicarb 5.8 with bicarb deficit of 297 and Anion Gap 31 (causes can include lactatemia, acute renal failure, sepsis in this patient). Renal function with elevated Cr 2.42 (from 0.90 in March on current year) Troponin elevated at 0.167. Lactate elevated at 3.1. The patient was admitted to our services due to sepsis, AKI, dehydration, SCC of buccal mucosa, and DM. The patient was managed in ICU with sepsis bundle, bicarbonate push and drip, broad spectrum IV antibiotics (Vancomycin and Piperacillin /Tazobactam) adjusted to renal function. On admission, the patient was noted to have hypokalemia, hypomagnesemia, but normal phosphate levels. Electrolytes were replaced. Due to patient,Äôs feeding difficulties due to SCC of buccal mucosa, NGT was placed in order to provide proper nutrition. Nutritionist was consulted on day of admission and recommendations were followed on second day of admission. The hypokalemia and hypophosphatemia persisted regardless for electrolyte replacement. It wasn,Äôt until day 3 of admission that hypophosphatemia was noted, and a diagnosis of refeeding syndrome was determined. Electrolytes were replaced daily until acceptable levels were obtained. The patient underwent PEG tube placement for proper nutrition to be provided. The patient was later discharged home after sepsis and nutrition was controlled.

This case shows the importance of evaluation of hypophosphatemia and hypomagnesemia during refeeding syndrome for patients that have been without proper nutrition even after 72 hours. The relevance of this case is to provide education and bring awareness to the monitoring of electrolytes in patients with poor feeding in order to avoid the detrimental and possible death of patients with refeeding syndrome.

**Poster No.:** V-12
**Title:** Beyond the Usual Tumble: A Rare Case of Multifocal Acute Thrombosis Following Trauma
**Authors:** Manuel Del Rio, MD; José F. Nuñez-Morales, MD; Orlando Rodríguez-Amador, MD; Patricia Rivera-Cariño, MD; Carla Lozada-Villaseñor, MD

**Abstract:**
Thrombus formation lies at the heart of Virchow,Äôs triad: endothelial injury, venous stasis, and hypercoagulability. While portal vein thrombosis is frequently observed in cirrhotic patients, it can also manifest in individuals without history of hepatocellular disease. Factors such as Factor-V Leiden and prothrombin G20210A elevate procoagulant activity, while deficiencies in antithrombin, protein C (PC) or protein S might diminish anticoagulant function. These, among other factors may precipitate portal and mesenteric vein thrombosis, even in noncirrhotic patients. Rarely, events like blunt abdominal trauma can precipitate thrombosis, particularly in cases of undiagnosed thrombophilia disorders. Clinical manifestations of acute portal/mesenteric vein thrombosis include upper abdominal pain, nausea, fever anorexia and jaundice. Here we present a rare case of multiple acute thrombosis following blunt trauma in a patient without coagulability disorders. Case of a 56-year-old Hispanic male patient with no significant medical history presented to the emergency room with acute severe abdominal pain which began four days after a 2,Äì3-meter fall while gardening outside his home. Was diagnosed with acute gastritis at another institution and discharged home with PPI therapy. Over the course of five days, pain progressed diffusely over entire abdomen. Physical exam relevant for epigastric, right and left lower quadrants pain without any hematoma or sign of trauma. Laboratories revealed mild leukocytosis with stable hemoglobin and platelets. Chemistry panel within normal limits with elevated C-reactive protein (120.4 mg/L). Coagulation studies revealed an of INR 1.10, PT 14, PTT 30.7, elevated fibrinogen degradation product screen at (20ug/ml).
Abdominopelvic CT scan with/without contrast was performed which revealed complete occlusive portal vein, portal splenic confluence, splenic vein, and superior mesenteric vein thrombosis. Considering above findings, patient was started on subcutaneous enoxaparin. No surgical thrombectomy was performed due to lack of access to the portal venous system. GI and H/O service recommended hypercoagulability workup and continued anticoagulation. Hypercoagulability studies including Paroxysmal nocturnal hemoglobinuria and JAK-2 mutation were unremarkable. Patient was transitioned to direct oral anticoagulant rivaroxaban (15mg two times a day) and scheduled for outpatient H/O service clinics to complete hypercoagulability workup. Virchow's triad encompasses risk factors promoting thrombus formation. In this case, trauma-induced endothelial injury triggered thrombus formation. However, its crucial to consider all components of Virchow's triad, especially hypercoagulability disorders like Factor V Leiden, PNH and JAK-2 mutation. Portal vein thrombosis most commonly presents with acute abdominal pain localized at the upper abdomen. Other common presenting symptoms include vomiting, anorexia, fever, and abdominal distension (particularly in the presence of ascites). CT scans are the preferred diagnostic method for assessing PVT extension into mesenteric/splanchnic vasculature. Although abdominal trauma can lead to thrombosis of portal vein and its branches, this clinical presentation is exceedingly rare with only a few reported cases in literature. The most critical aspect of patient management is ensuring adequate follow-up to monitor for potential complications. Patients with PVT are at risk of developing portal hypertension which can ultimately lead to cirrhosis and its associated complications. Patient compliance with anticoagulation and regular primary care follow up is of utmost importance.

**Poster No.:** V-13
**Title:** A Rare Case Report of Secondary Primary BCL
**Authors:** Xavier Delgado-López, MD; Carla Barrientos-Risso, MD; Félix Rivera-Troia, MD; Mónica Egozcue-Dionisi, MD; Santa Merle, MD

**Abstract:**
B-cell Lymphomas represent a broad spectrum of clonal diseases derived from mature and immature B-cells. Their behavior and response to treatment varies according to their composition, and thus understanding their etiology can guide treatment and provide a prognosis. Here we report a case of an aggressive Primary B-cell lymphoma arising after diagnosis and treatment of Lung Carcinoid. A 56-year-old Hispanic woman with history of Carcinoid of the Lung arrived at the hematology-oncology clinic after being referred by the pneumologist for biopsy confirmed Carcinoid recurrence and suspected retroperitoneal lymph node metastasis as seen on abdominal CT scan. The patient received treatment for her Stage IV Neuroendocrine tumor with Everolimus, followed by Temodar and Xeloda on progression. The tumor was described as nonfunctional, marker negative/octreotide positive. As the patient referred to persistent abdominal pain and fatigue, she was sent for restaging. An abdominopelvic CT scan demonstrated mediastinal, abdominal intraperitoneal and retroperitoneal lymphadenopathy. PET CT scan revealed F-18 FDG avid foci in the left lower lung lobe (SUV max 4.36) correlating with the studied carcinoid tumor. However, an extensive F-18 FDG avid lymphadenopathy throughout the mediastinum and left lung hilar area with an SUV max of 21.09 warranted a biopsy. Flow cytometry findings of a left retroperitoneal lymph node was compatible with a B-cell non-Hodgkin Lymphoma, expressing CD10, CD19, CD20, CD38, CD45 and lambda light chain. Differentials included a Grade 3 Follicular Lymphoma versus Diffuse Large B-cell Lymphoma. Treatment for Carcinoid was held while the patient received six cycles of R-CHOP. Time later, patient presented to the emergency department due to worsening of her usual pain and was sent for restaging where regrowth of mediastinal mass and retroperitoneal mass were documented on abdominopelvic CT, remarkable for a posterior inferior mediastinal mass of now 11.6 cm x 8.6 cm x14 cm and anterior displacement and partial encasement of the aorta. During this time, the patient was being treated with Temozolomide and Capecitabine for the primary carcinoid. At the hospital stay patient was mostly treated for pain management and was scheduled for medport placement upon Heme/onco recommendation for immediate start on R-Gemox therapy. After pain management optimization and medport insertion patient was discharged and instructed to follow up with treatment in outpatient setting. Although surveillance imaging is commonly performed in clinical practice, its ability to identify asymptomatic relapses and improve survival for patients is not well defined. However, early detection of secondary primary malignancies, allows us to adjust the treatment plan, better define high-risk groups and strengthen targeted interventions and clinical interventions.

**Poster No.:** V-14
**Title:** Pulmonary talc granulomatosis: An unexpected cause of pneumoconiosis
**Authors:** Diego Díaz-Mayor, MD; Francisco Del Olmo, MD; Edwin Alicea, MD; Vanessa Vando-Rivera; Raúl Ríos-de Choudens

**Abstract:**
*Introduction:* Pulmonary talc granulomatosis is a rare inflammatory lung disease due to intravenous or inhalational exposure to talc particles. Since it has a very low incidence, with only a few cases reported in the literature, diagnosis is challenging. We present a unique case of a patient found with pleural disease consistent with pulmonary talcosis. *Case:* 73 year-old male with past medical history of Psoriatic Arthritis on Izekizumab, suspected pulmonary hypertension, non-smoker, evaluated due to shortness of breath, cough, since 1 year prior. Pulmonary function test showed mixed mild obstructive and restrictive ventilatory impairment, with moderate reduction in gas transfer. Inflammatory markers within normal limits. Chest computer tomography (CT) showed partially calcified pleural plaques with mild volume loss and pleural tagging of the adjacent lung parenchyma in the left hemithorax, and right upper lobe calcified granuloma. Positron emission tomography scan (PET CT) shows multiple hypermetabolic partially calcified lesions involving the lower half of the left thoracic pleura. CT guided-biopsy of pleura was performed and bronchoscopy with bronchoalveolar lavage (BAL) done and showed multinucleated histiocytes, fibroadipose tissue with crystalloid structures with positive birefringence in polarized light microscopy, and foreign body granulomatous reaction with no evidence of mesothelioma, asbestos bodies, nor infectious process. Cytology showed neutrophil predominance. Biopsy of pleura was sent to specialized pathology, who reported findings consistent with magnesium silicate(talc). A second patient history was carried out and patient denied any drug use, cosmetic talc use, chest surgery, accidents. Nevertheless, was exposed to coal, had a job polishing jewelry with turpentine, had a previous history of opioid Propoxyphene and actively lives in a house with asbestos. *Discussion*: Pulmonary talcosis is a granulomatous disease that forms from exposure of talc. Talc can be identified as irregular, birefringent needle-shaped crystals inside or outside macrophages under polarized light. Usually associated with increased number of lymphocytes in BAL. The natural history of pulmonary talcosis is said to be slowly progressive, even years after exposure has ceased. Advanced disease leads to pulmonary fibrosis, pulmonary hypertension, and right ventricular failure. Talc has been associated is a mineral widely used in various industries, such as paper making, plastic, and in daily life goods such as cosmetics, rubber, resins, cleansing materials and drugs including Propoxyphene. The patient,Äôs causative agent is difficult to determine as could be either the talc used in turpentine for polishing jewelry, or another unidentified exposure. Propoxyphene have been reported to cause talcosis in inhaled or intravenous form but no literature found on oral use. There have also been reports of talc contaminated with asbestos, and even though biopsy was negative for asbestos bodies, asbestos chrysolite fibers are not easily seen under the microscope and can lead to a false negative result. Most pleural plaques are caused by asbestos and can also be seen after pleurodesis with talc. Nevertheless, few cases of pleural plaques has been reported in a patient with occupational talc exposure. This case highlights the importance of a detailed medical history including environmental and occupational exposure for appropriate diagnosis, identification, and prevention.

**Poster No.:** V-15
**Title:** Giant Coronary Artery Aneurysm of the First Obtuse Marginal Artery
**Authors:** Natalie Engel, MD; Andrew Engel-Rodriguez, MD; Robert Engel-Rodriguez, MD; Robert Engel-Ramos, MD

**Abstract:**
A coronary artery aneurysm (CAA) is a unique cardiac pathology defined as a localized dilation of more than 1.5 times the diameter of the normal vessel size. A giant CAA (GCAA) is defined as a CAA that is larger than 20 mm or vessel diameter is exceeded by 4 times. The incidence of a giant CAA is difficult to be determined but has been reported to be 0.02%. In the present case, we describe the insidious development of obtuse marginal 1 (OM1) GCAA measuring 8.5 √ó 6 cm in 15 years. Management of patients with GCAA requires special focus in developing optimal treatment strategies and surveillance regimens to aid physician decision making, especially when considering nonsurgical patients. In 2005, a 68-year-old Hispanic woman with a history of essential hypertension was diagnosed by coronary angiogram with 2 coronary arteriovenous (AV) fistulas, and left main and left circumflex coronary artery (LCX) ectasia. The patient was referred for evaluation by interventional cardiology and a cardiothoracic surgery, both of which recommended continued medical treatment. The patient declined any invasive measures and started high-intensity atorvastatin and aspirin, 81 mg. In 2012, our patient was diagnosed with left breast cancer, which was treated with lumpectomy and radiotherapy/chemotherapy. In fall 2020, the patient was hospitalized because of decompensated congestive heart failure. A chest radiograph revealed cardiomegaly and what was believed initially to be left pleural effusion (Figure 1). She had TTE with a decreased left ventricular ejection fraction of 40% to 45% and what was believed to be large pleural effusion. Because of nonresolving left pleural effusion, chest computed tomography (CT) with intravenous contrast was ordered and showed a GCAA near the left atrium measuring 8.4 √ó 6.5 cm. Coronary angiogram showed an AV fistula from the right coronary artery to the coronary sinus, LMCA/LCX ectasia, and 6.2 √ó 7.9 √ó 6.5 cm GCAA. The patient was discharged home in stable condition from the hospital and continued her already established cardiovascular treatment plan of aspirin, 81 mg; apixaban, 5 mg twice daily; atorvastatin, 40 mg; irbesartan, 150 mg; metoprolol succinate, 50 mg; amiodarone, 200 mg twice daily; and Furosemide 20 mg. Eight months after the last hospitalization, the patient died from metastatic breast cancer. Primary pathogenesis of a GCAA is atherosclerosis, but several cases have been considered congenital in origin because of a fistulous connection from the GCAA to the coronary sinus. We cannot exclude that chest radiation in combination with the patient's known LMCA/LCX ectasia and AVF to the coronary sinus promoted the development of the GCAA. Most of the current recommendations are based on small case series or anecdotal evidence. Very few cases of an arteriovenous fistula with a giant aneurysm have been reported to date. On data review, we could not find GCAA of the OM1. In the present patient case, we report the development of a GCAA in 15 years.

**Poster No.:** V-16
**Title:** No turning back! Refractory hepatic hydrothorax, an infrequent complication of autoimmune hepatitis
**Authors:** Gretchen Estrada, MD; Héctor Quintero-Alvarez, MD

**Abstract:**
Hepatic hydrothorax is an infrequent complication of liver cirrhosis and it is defined as a transudative pleural effusion in the absence of cardiopulmonary disease. Patients who have recurrent hydrothorax despite optimal dietary and pharmacologic treatment develop refractory hepatic hydrothorax. This is the case of an 81-year-old woman with chronic liver disease who arrived with complaints of progressive shortness of breath, abdominal swelling and nausea. Patient developed acute hypoxemic respiratory failure, was intubated and placed on mechanical ventilation. Imaging studies revealed a left-sided moderate-to-large pleural effusion, liver cirrhosis and ascites. Most common causes of chronic liver disease were ruled out and immunologic markers (Antinuclear Antibody with 1:1280 titer, Smooth Muscle Antibody with 1:40 titers and Immunoglobulin G with 1,967mg/dL) were positive and the patient was diagnosed with autoimmune hepatitis. A thoracentesis was done without complications with removal of more than 500ml of clear yellow liquid with analysis consistent with a transudative effusion. Imaging studies showed resolution of pleural effusion after thoracentesis and the following day she was successfully extubated and pharmacologic therapy (diuresis, intravenous albumin, water/salt restriction) was continued. However, two days later the patient developed recurrence of the left-sided pleural effusion and a second thoracentesis was performed with removal of 700ml of effusion. Despite optimal dietary modifications, pharmacologic management and two thoracentesis, the left sided pleural effusion recurred with worsening of respiratory symptoms. Due to poor prognosis, the goals of care were discussed with family members and they opted for comfort measurements and hospice care was coordinated. This case illustrates how refractory hepatic hydrothorax in a patient with autoimmune hepatitis can be associated with poor prognosis and increased mortality. Although the presentation in this patient is considered rare, a rapid recognition, diagnosis and treatment of autoimmune hepatitis can lead to prevention and/or progression of a fatal complication such as refractory hepatic hydrothorax.

**Poster No.:** V-17
**Title:** Not every rash is allergy: Rare case of Mature T Cell Lymphoma with skin manifestation
**Authors:** José Irizarry, MD; Wilfredo M. Pedreira-García, MD; Jaymilitte Bosques-Lorenzo, MD; Héctor Nieves-Figueroa, MD; Rafael Mestres-Franco, MD; William Cáceres-Perkins, MD; Glorivette San Vicente-Morales, MD

**Abstract:**
*Introduction:* Primary cutaneous lymphomas are a subset of non-Hodgkin lymphomas that affects lymphocytes in the skin. They can be classified into B-cell lymphomas (85%) or T-cell lymphomas (15%), with Mycosis Fungoides (MF) and Sezary Syndrome (SS) being the major subtypes of T-cell lymphomas. Both present with non-specific skin eruptions that can fluctuate over the course of months or years, making their diagnosis challenging. Distinguishing between the two requires careful evaluation of the extent of skin involvement, as well as the presence of nodal, visceral, and blood involvement. SS, with an incidence of 0.8 cases per million people in the United States and being 1% of all T-cell lymphomas, remains poorly understood. However, some research has suggested an association with exposure to Human T-lymphotropic virus (HTLV) types 1 and 2 which are endemic in certain regions such as the caribbean islands, and southern Japan. In this report, we present a case of SS in which the initial presentation was a skin rash that had been mistakenly treated as various other conditions such as allergies and eczema. *Case description:* An 89-year-old male was brought to the emergency department due to hypoactivity, loss of appetite, and a persistent rash that has lasted a year.The rash was scattered erythema with blanching patches, affecting all regions without mucosal involvement. Despite previous treatment with topical and intravenous steroids, as well as antihistamines, there was no improvement. Initial laboratory results revealed leukocytosis, severe hypercalcemia, and increased uric acid levels. Intact parathyroid hormone levels were decreased, while vitamin-D levels were within range. Physical examination showed bilateral axillary lymphadenopathy. A PET/CT scan confirmed intrathoracic, retroperitoneal, and pelvic lymphadenopathy, along with splenomegaly. The patient received aggressive fluid resuscitation, denosumab, and calcitonin, leading to an improvement in neurological status. A peripheral blood smear showed leukocytosis with occasional circulating cerebriform lymphoid cells. Axillary lymph node biopsy confirmed a diagnosis of mature T-cell neoplasm. Bone marrow involvement by T-cell lymphoma was also detected. Serology testing for HTLV during the admission returned positive for type 1. Based on these findings, the patient was diagnosed with stage IVa Sezary Syndrome. *Discussion:* Diagnosing the cause of a "red pruritic rash" can be challenging, as there are many possible causes, and rashes can appear in different ways. MF and SS are two lymphomas that can present with similar skin manifestations, but their clinical courses and aggressiveness differ greatly. It's important to distinguish between them, as their treatment approaches vary. When a patient presents with symptoms like a diffuse rash, lymphadenopathy, and abnormal cells on peripheral smear and bone marrow biopsy, it may be a sign of SS. Unfortunately, even with prompt treatment, the prognosis for this aggressive form of lymphoma can be poor. This case underscores the importance of thorough evaluation and accurate diagnosis when dealing with persistent or unusual rashes as they may be indicative of an underlying malignancy. Prompt evaluation, accurate diagnosis, and appropriate treatment are crucial for improving patient outcomes in such cases.

**Poster No.:** V-18

**Title:** Hitting the Brain: A Rare Case of Heparin-Induced Thrombocytopenia with Cerebrovascular Accident Thrombosis.

**Authors:** Adrián Chico-Moya, MD; Fabio Squicimari, MD; William Rodríguez, MD

**Abstract:**

*Introduction:* Heparin Induced Thrombocytopenia (HIT) is defined as a prothrombotic adverse effect of heparin therapy. There are two types of HIT described; type I is a non-immune, mediated, asymptomatic, transient drop in platelet count that occurs in some heparin treated patients and often returns to normal with continued heparin administration. On the other hand, type II (HIT-II) is more serious form of immune-mediated disorder characterized by the formation of antibodies against heparin-platelet factor 4 complexes which tends to lead to severe platelet drop and increased risk for thrombus formation. In this case, we reported a HIT-II induced right middle ischemic cerebrovascular accident (RM-ICVA). *Case:* A 73-year-old man with past medical history remarkable for alcohol abuse, hypertension, oropharyngeal dysphagia who was brought to the Emergency Department, been admitted with the diagnosis of alcohol withdrawal. Subsequently, hospitalization got prolonged complicated by sepsis due to urinary tract infection, hyperactive delirium and aspiration pneumonia. After one month as inpatient, patient had new onset acute thrombocytopenia with acute drop to >50% and > 20K nadir. Follow up labs showed no schistocytes, normal coagulation parameters and fibrinogen. Hence, multiple etiologies including sepsis and HIT were considered as possible culprit. However, few days afterwards, patient developed new altered mental status with depressed neurologic response., Head CT revealed acute RM-ICVA. Due to high probability for HIT as per 4T score: 5pts (intermediate risk), patient was considered for direct thrombin inhibitors while HIT panel was requested. Sadly, the patient developed hemorrhagic conversion and passed away few days after. Subsequently, HIT panel report came positive for platelet factor 4 antibodies (PF4). *Discussion:* Heparin-induced thrombocytopenia (HIT) is a life-threatening complication of exposure to heparin including unfractionated heparin and low molecular weight heparin that occurs in a small percentage of patients exposed. It has been reported in up to 5 percent of patients exposed to heparin for more than four days. This happens regardless of the dose, schedule, or route of administration as consequence of immune-mediated antibodies formation against PF4 in complex with heparin. This antibody activates platelets and can cause catastrophic arterial and venous thrombosis. Untreated HIT has a mortality rate as high as 20 percent; although with improved recognition and early intervention, mortality rates decrease enormously.

**Poster No.:** V-19
**Title:** An Illustrative Rare Case of an Adult Prune Belly Syndrome Survivor and His Comorbidities
**Authors:** Valerie Flores-Robles, MD; J. Soto-Rivera, MD; A. Rivera-Caro, MD; L. Diez-Asad, MD; F. Rivera-Troia,MD

**Abstract:**
*Introduction*: Prune belly syndrome or Eagle-Barrett syndrome is a rare and morbid congenital disorder characterized by partial or complete absence of abdominal muscles, cryptorchidism, and/or anatomical malformations of the urinary tract system. The survival rate and main prognostic factor of these patients are dependent on the severity of the renal dysplasia. Adult reports of this syndrome are scant. For this reason, it is important to represent survival cases, the management of their comorbidities, and arising complications. *Case report*: Case of a 52 y/o male patient diagnosed at birth with prune belly syndrome. This patient presents with a past medical history of end-stage renal disease on hemodialysis, Failed renal transplant, past cerebrovascular accident, heart failure with reduced ejection fraction, severe peripheral artery disease, below-the-knee amputation of the left leg, and hypertension. He was admitted to inpatient services due to dry gangrene on the right 1st and 2nd foot digits, decompensated heart failure, and de novo tension ascites. Diagnostic paracentesis, optimization of heart failure therapy, and surgical evaluation for gangrenous digits were provided. *Conclusion*: Prune belly syndrome is a complex disease with increased morbidity and mortality rates. Approximately 30% of survivors develop chronic renal failure and may require kidney transplant. Therefore, awareness of the condition, close monitoring, and adequate management can help increase survival in these patients. It is imperative to determine the optimal treatment to help avoid its fatal course.

**Poster No.:** V-20
**Title:** Help! A Genitourinary Bacteria in My Lungs!
**Authors:** Yatzel Fuentes-Rosa, MD; Mariana Rolan-Otero, MD; Kimberly Pagan-Marchese, MD; Jorge Soto-Rivera, MD

**Abstract:**
Oligella urethralis, a Gram-negative coccobacillus, is most commonly found in the human genitourinary tract and it has not been commonly described as an infectious disease agent. However, some cases of infection have been reported in patients with underlying conditions. Patients with heart failure and/or end stage cardiac disease have a three-time fold susceptibility for pneumonia and a four-time fold increased mortality rate. This case brings awareness to this increased risk and mortality for heart failure patients with a pneumonia of a predominantly commensal bacteria that normally does not cause infectious disease.

Case of a 59-year-old-male with a PMHx of ESCF with ICD placement, dilated cardiomyopathy, Hx of CABG, recurrent nephrolithiasis, HTN, CKD, OA, and GAD was sent to our Institution due to having shortness of breath, chest discomfort describes as sudden, pressure like, and spreading to epigastric region. The pain was associated with nausea and dizziness, but patient denied fever, sweating, loss of consciousness, vomiting. Pain was not related to food ingestion, chest injury, exercise, or triggered by emotional stress. Patient was transferred due to having sudden non-sustained ventricular fibrillation that was causing his symptoms. The patient developed leukocytosis within 24 hours of admission and CXR confirmed interstitial vascular prominence versus multifocal pneumonia. The patient was being treated with GDMT for ESCF and BiPAP for his respiratory status with no improvement and worsening of symptoms. Empiric IV antibiotics were provided for possible pneumonia, but the patient,Äôs leukocytosis continued on increasing trend, his respiratory status worsened, and patient was intubated. The patient was also found with GPC bacteremia, for which IV antibiotics were adjusted. Endotracheal intubation secretions had no growth, but high suspicion for pneumonia continued due to clinical status and was later confirmed with a chest CT scan that showed centrilobular airspace opacities in the right upper lobe and both lower lobes, where edema and multifocal pneumonia were considered. Due to continued leukocytosis and fever spikes, IV antibiotics were increased to maximum coverage and even though leukocytosis was on decreasing trend, the patient continued with fevers and overall health deterioration. Endotracheal secretions were repeated, several times which eventually grew Candida species and O. urethralis. Despite our efforts and management, the patient had several complications during his hospitalization, which ended with his demise.

**Poster No.:** V-21
**Title:** Digital Ischemia: Paraneoplastic Consequence of Lung Adenocarcinoma
**Authors:** Fabiola Garau, MD; Héctor Silva-Rivera, MD

**Abstract:**
Digital ischemia is a rare paraneoplastic manifestation associated with several malignant tumors, especially adenocarcinomas. Incidence is 2 cases per 100,000 cases per year. Such presentation can precede, coincide, or follow the diagnosis of cancer. The possible mechanisms implicated in digital ischemia are thought to be related to hypercoagulability, vasospasm, immune complex deposition, and cryoglobulinemia. In this case report, I will describe a case of such a condition in a Puerto Rican female. An 83-year-old female with no previous past medical history presented to the Emergency Department due to ischemic changes and pain in the left-hand digits that began one month ago. Pain was described as shooting and stabbing, which was worse at night. Initial vital signs and laboratories were within normal. Physical examination is remarkable for cyanotic left-hand fingers more prominent in the 2nd and 5th digits, scattered ecchymosis distal from the metacarpals without visible edema, and non-palpable radial and ulnar pulse. Doppler of left upper extremity revealed complete occlusion of radial and ulnar arteries. The patient was admitted by Surgery service for management. However, upon admission, a routine Chest X-ray incidentally revealed a 4.7cm left upper lobe large mass with multiple bilateral pulmonary nodules. Patient without a personal history of smoking or family history of malignancy. Chest CT suggested a lung malignancy mass in the left upper lobe with associated metastatic pulmonary nodules. Thrombophilia workup to determine the hypercoagulability state was negative. Chest CT-guided left lung mass biopsy performed revealed poorly differentiated lung adenocarcinoma. For the management of digital ischemia, the patient underwent an arteriogram of the left upper extremity with brachial angioplasty and initiation of tissue plasminogen activator treatment. Hematology-Oncology service on the case recommended palliative care since the patient was not a candidate for systemic or radiotherapeutic treatment. After one month of hospitalization, the patient was discharged with systemic anticoagulation and close follow-up at the outpatient clinic. Cases of digital ischemia tend to be rare. This case shows that in patients with unexplained and sudden onset digital ischemia, the exclusion of malignant tumors should always be considered. It is necessary to create awareness that digital ischemia is a rare paraneoplastic manifestation of malignant tumors such as lung adenocarcinoma and that prompt identification is important for the diagnosis and treatment of an occult neoplasm.

**Poster No.:** V-22
**Title:** A rare case of Autoimmune Encephalitis with refractory seizures
**Authors:** Yarely Gierbolini, MD; Marilee Tiru, MD; Christopher Day, MD

**Abstract:**
*Introduction*: Autoimmune encephalitis (AIE) is a group of conditions that induce brain inflammation as autoimmune antibodies target synaptic proteins, leading to neurologic and psychiatric symptoms. Although its incidence remains rare overall, detection is increasing with new neural autoantibody biomarkers and greater awareness among clinicians. The differential diagnosis includes a variety of alternative causes of encephalitis including infection, toxic and metabolic disturbances, vascular disorders, neoplastic disorders, demyelinating and inflammatory disorders, psychiatric diseases, and neurodegenerative dementias. The work-up for patients with suspected AIE should include neuroimaging, EEG, lumbar puncture, and serologic testing for appropriate biomarkers to confirm the diagnosis and exclude alternative etiologies. *Case Description:* A 62-year-old male with history of major depressive disorder, anxiety and hypertension who arrived to the emergency department for evaluation of seizures. Seizure semiology was described initially as facial tics, that progressed to arrest in conduct, with upper extremities dystonic posturing and lower extremities involuntary movements, hypermotor, lasting less than 30 seconds, and returning quickly to baseline. No tonic/clonic movements, loss of consciousness, status epilepticus, loss of sphincter tone, tongue biting or drooling. EEG confirmed seizure episodes. Head CT was remarkable for a hypodensity involving the right posteromedial temporal lobe. Chest CT, testicular sonogram and abdominopelvic CT were negative for pathological findings. Brain MRI w/o contrast was remarkable for visualization of an abnormal signal intensity from the posteromedial temporal lobe. Cerebrospinal fluid (CSF) cytopathology showed slightly increased in cellularity showing neutrophils, monocytes, lymphocytes and macrophages, suggesting unspecific inflammatory process. At that moment autoimmune etiologies were highest in differential given patient subacute onset of memory changes and new onset of seizures at older age, without identified foci. Once laboratory VDRL results were negative, patient was started on Methylprednisolone IV for 5 days, reporting decreased in frequency and duration of seizures. He subsequently received IVIG for 5 days. During the admission course the diagnosis of AIE was confirmed by positive LGI1 and VGKC antibodies in serum. Pertinent to our case, the patient also developed progressive hyponatremia and autonomic dysfunction. CSF work up for encephalitis, paraneoplastic, FTA Ab, and HSV1/2 were negative. Although LGI1 Ab were negative in CSF, existing literatures indicate 50% of patients can present with negative antibodies in CSF, for which with the appropriate clinical picture and the presence of antibodies in serum is sufficient to confirm the diagnosis. Currently the patient continues with Levetiracetam, Azathioprine and Lacosamide daily, Methylprednisolone IV monthly and IVIG in-patient when frequency of seizures increases. *Discussion:* Establishing a diagnosis of autoimmune encephalitis is challenging. Our case highlights the important features that should raise early clinical suspicion of LGI1 encephalitis, including sub-acute progression, progressive hyponatremia, autonomic dysfunction, and frequent refractory seizures. The ultimate goal is to rapidly recognize alarming features of this disease in order to promote faster diagnosis, faster treatment and improve long term outcomes.

**Poster No.:** V-23
**Title:** Brewing Disaster: When Beer and Starvation Lead to Severe Ketoacidosis
**Authors:** Benjamín González-Burgos, MD; Giovanni Rivera, MD; Kiara Ortíz, MD; Cristina Ortíz, MD; Carlos Cortés, MD

**Abstract:**
*Introduction:* Alcoholic ketoacidosis (AKA) is a severe metabolic acidosis that occurs in individuals with alcohol use disorder who engage in binge drinking and experience episodes of relative starvation. Delayed or missed diagnosis of AKA can have fatal consequences due to associated electrolyte abnormalities and cardiac arrhythmias. The non-specific symptoms of AKA, such as tachycardia, tachypnea, agitation, and abdominal pain, often contribute to diagnostic challenges. In this case report, we present a case where early recognition of alcoholic ketoacidosis facilitated aggressive treatment in the intensive care unit (ICU), resulting in resolution of acidosis and prevention of complications. *Case Description:* A 63-year-old man with a history of cataracts and alcohol abuse presented to the emergency department (ED) with complaints of right hip pain, worsening eyesight, and tremors. The patient reported multiple falls at home, although imaging ruled out any fractures. On admission, he appeared agitated, hallucinated, and displayed signs of anxiety, leading to a diagnosis of alcohol withdrawal. Initial laboratory results at the ED revealed HCO3: 22 mEq/L and anion gap (AG): 24, while other parameters were within normal limits. The patient received lorazepam and thiamine, and subsequent follow-up labs showed blood glucose: 94 mg/dL, HCO3: 17 mEq/L, AG: 27, indicating mixed high anion gap metabolic acidosis with concomitant metabolic alkalosis. Arterial blood gas (ABG) analysis demonstrated a pH of 7.408 and pCO2 of 27 mmHg, indicating the absence of acidemia due to concurrent metabolic and respiratory alkalosis. Lactic acid level was 1.0 mmol/L, and beta-hydroxybutyrate (B-hydroxy) level was 83 mg/L. Based on these findings, a diagnosis of severe alcoholic ketoacidosis was made, and the patient was transferred to the ICU. Treatment involved D10W infusion with an insulin drip and isotonic fluids. Subsequent monitoring showed a decrease in B-hydroxy levels and normalization of the anion gap. The patient was transitioned to subcutaneous insulin, initiated on a tube feeding diet, and eventually weaned off the insulin drip. Following clinical improvement, the patient was transferred to the intermediate care ward and later discharged. *Discussion:* Alcoholic ketoacidosis arises from impaired glucose utilization and alcohol-induced suppression of gluconeogenesis, with poor oral intake exacerbating the condition in this case. It is noteworthy to observe such elevated levels of B-hydroxy in the absence of diabetes, normal blood glucose levels, and non-use of SGLT2 inhibitors. The discrepancy between HCO3 levels and the severity of acidosis can be attributed to the coexisting metabolic alkalosis. Recognizing the elevated anion gap earlier would have facilitated an earlier diagnosis and prompt treatment. This case report holds significance for the physician community for two main reasons: Firstly, clinicians should be aware that alcoholic ketoacidosis can be severe enough to require intravenous insulin and D10W therapy, preferably in an ICU setting. Secondly, calculating the anion gap, even when bicarbonate levels appear "normal," can help identify hidden metabolic acidosis. Early recognition and treatment of such cases can effectively prevent complications.

**Poster No.:** V-24
**Title:** Chlamydia Pneumonia, Covid Pneumonia, and Now Weil's Disease!
**Authors:** Rey Aponte-Rivera, MD; Yatzel Fuentes-Rosa, MD; Vicente Covas-Rosario, MD; Rosa Román-Carlo, MD; Christian Camacho-Ramírez, MD; Juan Colón-Padilla, MD

**Abstract:**
Case of a 40-year-old female bird and animal handler with no PMHx is brought to our Institution due to having diarrhea, fever, cough, vomiting, poor appetite, disorientation, confusion, and jaundice for several days. Family member states patient had fever, chills, anosmia, diarrhea, and vomiting one month before, but not like current state of health. On PE, the patient was alert, hypoactive, acutely ill, icterus, jaundice, CTAB, RUQ with mild tenderness, with guarding, and 4/5 muscle strength. Laboratories showed neutrophilic leukocytosis, normocytic normochromic anemia, thrombocytopenia, toxic granulation, prolonged PT/PTT, increased inflammatory markers, normal lactate, hyperbilirubinemia, transaminitis, and increased lipase and amylase. Abdominal CT with Severely distended gallbladder and smooth outer contour of the pancreas with loss of the normal cobblestoning for possible pancreatitis. Chest CT with multifocal airspace opacities throughout both lungs with multiple nodules. The patient was admitted to our services with a diagnosis of sepsis, pneumonia of possible zoonotic origin, pancreatitis, and high suspicion of leptospira. The patient,Äôs respiratory status declined (severe ARDS) and patient had to be intubated. Pneumology services and Infectology services consulted. Patient was on broad spectrum IV abx for sepsis and leptospira. Zoonotic pneumonia was also suspected and work up was sent and received, for which Chlamydia pneumoniae IgG 1:64 was noted. Covid PCR was also positive and leptospira PCR was also positive. This young patient with no PMHx had recurrent pneumonia with a zoonotic pneumonia, Covid pneumonia, and Weil,Äôs disease. The patient progressed with proper treatment and was eventually extubated and discharged home. Currently, the patient is being followed at our clinics for immunologic studies and follow up chest CT. The educational objective of this case is to test for all possible causes of pneumonia according to patient exposure. Recurrent pneumonia in a prior healthy patient can be missed without proper anamnesis and diagnosis for all types of exposure. Proper treatment and follow up in patient with recurrent pneumonia is crucial for proper management and life expectancy.

**Poster No.:** V-25
**Title:** SLE flare complicated by intussusception in a young latin female
**Authors:** Gladymar González Marrero, MD; Astrid M. Avilés Meléndez, MD; Alexandra Rodríguez Pérez, MD

**Abstract:**
Systemic Lupus Erythematosus is an autoimmune chronic disease that can affect almost any body organ and the gastrointestinal system is not an exception. A gastrointestinal complication is intussusception, which is a condition rare in adults but a few cases had been described in the scientific literature. A 21-year-old female with past medical history of SLE diagnosed at 17 years old arrived to the emergency department (ED) due to incidental abnormal laboratory values found at an outpatient clinic visit due to four days of productive cough with white sputum, spoonful, accompanied by fever, intermittent chills and body aches, abdominal bloating and lower extremities edema that worsened 3 days prior. Patient denied nausea, vomiting, melena or hematochezia. Physical exam showed elevated blood pressure (180/120 mmHg), pale conjunctiva, dry oral mucosa, a 3x3 cm violaceous hard palate ulcer with irregular borders, and abdomen slightly distended but nontender. Patient was admitted with diagnosis of SLE flare, hypertensive emergency, non-oliguric prerenal acute kidney injury KDIGO stage 3 vs. Lupus nephritis. Laboratory workup showed leukopenia, anemia, hyperchloremia, azotemia and elevated AST, ESR and CRP. Also, the laboratory report was remarkable for positive SLE anticoagulant, active disease (dsDNA: 168), low serum levels of C3 & C4, and positive anti-cardiolipin antibody. Workup for most common respiratory viral organisms came back negative. Initial management for SLE flare included intravenous Solumedrol, Plaquenil, Cellcept, gastrointestinal prophylaxis with proton pump inhibitors and antihypertensives. Rheumatology department concluded that patient flare was most likely secondary to oral hormonal therapy for pregnancy termination ingested a few days before presentation. After three days of unsuccessful initial treatment Belimumab, Mycophenolate mofetil and Cyclophosphamide were added. On the third day of hospitalization, the patient developed peripheral edema, orthopnea, dyspnea, abdominal bloating, intractable vomiting, and diffuse abdominal pain associated with currant jelly stools. Physical exam at this time showed mildly abdominal distention, rigid to palpation, and shifting dullness to percussion suggesting ascites. The patient was transferred to intensive care unit and CT scan of the abdomen showed target appearance in the cecum and proximal ascending colon, suggesting acute ileocecal valve intussusception with bowel obstruction. After evaluation, the surgery department decided to perform emergent exploratory laparotomy and right colon hemicolectomy with anastomosis. Biopsy pathology report showed acute ileitis with ischemic changes but colon mucosa with no significant histopathologic changes and one lymph node without significant findings (no evidence of malignant, infectious or vascular etiology was found). Patient had an uneventful post operative process and was discharged with diagnosis of antiphospholipid syndrome on oral anticoagulation for outpatient follow up. This case report aims to rise awareness that although intussusception generally affects children, it should always be under the scope of our differential diagnosis when it comes to managing abdominal pain in SLE patients, since being an uncommon but fatal complication of SLE flares, it's rapid diagnosis is key for adequate management and positive outcomes.

**Poster No.:** V-26
**Title:** Caplacizumab to the Recue: A Case of a Patient with Refractory Thrombotic Thrombocytopenic Purpura
**Authors:** Adriel González Rivera, MD

**Abstract:**
*Introduction:* Thrombotic thrombocytopenic purpura (TTP) is a rare disorder characterized by microthrombi formation that occludes the microvasculature that affects approximately 3 in 1 million adults annually. This disorder is caused by an inherited deficiency of a disintegrin and metalloproteinase with a thrombospondin type 1 motif, member 13 (ADAMTS13) or be acquired. Its diagnosis is based on patient,Äôs clinical presentation and laboratories. Findings such as microangiopathic hemolytic anemia and thrombocytopenia without any other etiology give you a presumptive diagnosis, which can then be confirmed with ADAMTS13 activity testing. However, treating TTP can be challenging and is not always responsive to therapeutic plasma exchange (TPE) and corticosteroids, requiring innovative treatment like immunosuppressors. *Case Description:* A 49-year-old female patient without medical history was transferred to our institution for Hematology-Oncology evaluation. The patient reported developing sudden abdominal pain, with associated loss of appetite, nausea, vomiting episodes, and headaches since one-week prior admission. During her Emergency Department evaluation, she developed dyspnea on exertion and shortness of breath. Once in our institution, she was admitted into the Intensive Care Unit (ICU) with the clinical impression of an autoimmune blood disorder. Upon evaluation, the patient was afebrile, hemodynamically stable, in no respiratory distress. The physical examination was remarkable for pallor, pale conjunctiva and petechiae on both arms. Laboratories showed severe thrombocytopenia, microcytic hypochromic anemia, low haptoglobin, elevated reticulocyte count, and lactate dehydrogenase. A peripheral blood smear revealed marked amount of schistocytes. Head computerized tomography (CT) scan without intravenous (IV) contrast was negative for an acute intracranial pathology. Genetic testing for ADAMTS13 was abnormal with less than 10% activity. The patient was treated with IV corticosteroids and TPE. However, her thrombocytopenia did not improve as expected prompting the use of rituximab. After three weeks of treatment with TPE, IV steroids, and rituximab her platelets count improved significantly, leading to suspension of TPE. Unexpectedly, her thrombocytopenia significantly worsened, and TPE was resumed along with IV steroids. In view of TTP refractoriness and confirmed ADAMTS13 deficiency, caplacizumab was added to the regimen. Eventually, after eight days on caplacizumab, her platelet count increased and stabilized. She was transitioned to oral prednisone and discharged home to complete her caplacizumab regimen with Hematology-Oncology outpatient follow-up. *Conclusion:* TTP is a life-threatening condition with an estimated 90% mortality if untreated. Hence, if TTP is highly suspected, TPE and steroids should be started even without ADAMTS3 testing results. If ADAMTS3 is positive, rituximab and/or caplacizumab could complement medical therapy. Caplacizumab is a novel drug, recently approved by the FDA for the treatment of acquired TTP, which has shown a lower incidence of TTP-related death and, lower incidence of recurrence, among other advantages when used. TTP is a serious diagnosis that needs immediate recognition and treatment as failure to do so could be fatal or have long-term consequences for the patient. This case illustrates the importance that we as primary care physicians have in identifying and helping in the management of such disorders.

**Poster No.:** V-27
**Title:** A rare electrocardiographic sign of gastrointestinal disease
**Authors:** Eileen Guzmán-Rojas, MD; Vanessa Fonseca-Ferrer MD; William Rodríguez-Cintrón MD; Gerald Marín-García MD

**Abstract:**
*Introduction*: The spiked helmet sign is a recently described electrocardiogram (ECG) finding often associated with critical illness and high mortality risk. It is unrelated to cardiac pathology and is usually self-limited without lasting ECG changes. It has been associated with gastric dilatation, bowel obstruction, cholecystitis, hepatitis, and pancreatitis. Although the exact etiology is not fully understood, potential factors contributing for its development include diaphragmatic breathing, synchronization of the cardiac pulse with pulsatile diaphragmatic contractions, and repetitive epidermal stretching. *Case description:* A 70-year-old man with a medical history of hypertension and diabetes mellitus type II was initially admitted to the medical intensive care unit and diagnosed with acute hypercapnic respiratory failure. During admission, he developed an epigastric pain associated with diaphoresis, nausea, and non-bloody vomiting. Upon evaluation, ECG performed remarkable for ST-segment elevation in lateral leads. Therefore, a STEMI Code was activated, and upon Cardiology service evaluation, it was discussed that the patient's ECG findings were suggestive of a spiked helmet sign (pickelhaube) or pseudo-ST-segment elevation. Following analgesia, a nasogastric tube was placed, and 400 cc of bilious gastric content was suctioned from the stomach, relieving the distention. Repeated ECG following gastric decompression demonstrated complete resolution of the ST-segment elevations. Serial cardiac enzymes were negative for acute coronary syndrome. A computer tomography (CT) of the abdomen and pelvis was performed, demonstrating bowel obstruction with focal transition involving the distal small bowel at a point of focal small bowel wall thickening. The patient was treated conservatively and symptoms resolved. *Conclusion*: Although STEMI should always be considered within the differential diagnosis of atypical chest pain, it is crucial to recognize that not all ST elevations are equivalent to myocardial infarction. Therefore, this case highlights the importance of searching a broad differential diagnosis in the management of the critically ill patient.

**Poster No.:** V-28
**Title:** A Life-Threatening Presentation of Thyroid Cancer
**Authors:** Marimar Hernández Hernández, MD; Jaymilitte Bosques Lorenzo, MD; Mark Miranda Márquez, MD; Janet Colón Castellano, MD

**Abstract:**
Among well-differentiated thyroid cancers, papillary thyroid cancer (PTC) is the most common and accounts for nearly 80% of all cases. Infiltrative Follicular Variant Papillary Thyroid Cancer (FVPTCs) are BRAF-driven tumors with aggressive manifestations such as invasion of the surrounding thyroid parenchyma and lymphatic system. Oncogenic BRAF mutations are present in 50-60% of all PTCs. Despite mutation panels, some cases can be aggressive and cause life-threatening manifestations. Incidence of extrathyroidal extension into the upper respiratory tract ranges from 1% to 13%. We present the case of a 47-year-old male patient with medical history of obstructive sleep apnea, obesity class III (BMI: 49 kg/m2), major depressive disorder, and schizophrenia, who arrived to the Emergency Room (ER) with complaints of progressive cough for the past week. His symptoms were also associated with general weakness, malaise, and poor appetite. Patient recalls experiencing dysphagia since months ago, but he attributed it to a dental problem. Upon arrival to the ER, he was found with hypoxemic and hypercapnic respiratory failure that failed BiPAP trial requiring mechanical ventilation, as evidenced by worsening severe hypercapnia (CO2 levels >100) with hypoxemia and interval development of altered mentation. The patient was started on empiric broad-spectrum IV antibiotics and admitted to medical ICU. A chest CT angiography failed to demonstrate evidence of pulmonary embolism or pneumonia, however, there were findings of severe heterogenous enlargement of the left lobe of the thyroid gland displacing the trachea towards the right. Bedside POCUS showed a left-sided thyroid nodule measuring approximately 4 cm. Thyroid function tests were obtained with results of mildly decreased TSH and normal Free T4. Endocrinology service was consulted for FNA procedure which was performed and it showed a Bethseda category V, suspicious for malignancy. Total thyroidectomy was pursued due to mass size and compressive symptoms causing respiratory failure and failure to extubate. Open tracheostomy placement had to be performed during hospitalization due to prolonged mechanical ventilation and concomitant obesity hypoventilation syndrome. Final pathology of total thyroidectomy was positive for infiltrative FVPTC subtype measuring 7.8 cm in the left thyroid lobe, and negative for BRAF mutations. Radioablation was performed in view of tumor size and microscopic extrathyroidal extension with suggested skeletal muscle involvement in the pathology report. Whole-body scan showed remnant functional thyroid tissue within the thyroid bed, and asymmetric radioiodine uptake in the submandibular glands. He was started on Levothyroxine for TSH suppression < 0.5 mIU/L and follow-up with thyroglobulin levels. Patient remains with tracheostomy in place and in a stable clinical condition. This patient with a non-mutated BRAF had an unusual, aggressive, and life-threatening presentation of thyroid cancer. Hypoxemic and hypercapnic respiratory failure have a broad differential diagnosis. Thyroid surgery and RAI therapy are associated with improved overall survival and decreased incidence of complications such as prolonged intubation. Fast narrowing and early detection of life threatening etiologies such as thyroid cancer is crucial for prompt intervention and better patient outcomes.

**Poster No.:** V-29
**Title:** Influenza-Associated Acute Pulmonary Embolism: A Rare but Lethal Complication
**Authors:** Yolanda Hidalgo, M., MD; Morell-Castro, MD; V. Fonseca- Ferrer, MD; A. Aranda- Sainz de la Peña, MD; F. Del Olmo- Arroyo, MD

**Abstract:**
Influenza is an acute respiratory infection caused by Influenza Virus A or B and accounts for more than 100,000 flu related hospitalizations. The common clinical presentation includes fever, chills, shortness of breath (SOB) and generalized malaise. Viral infection has been associated with pro-coagulant changes increasing the risk of acute pulmonary embolism (PE) and mortality. The pathogenesis is yet to be understood but endovascular injury and endothelial activation plays a role in such. Nevertheless, data on thromboembolic complications associated with Influenza is limited, only a few cases have been reported, which poses a unique and formidable challenge to clinicians. PE should be suspected in patients with viral illness and ongoing shortness of breath or/and increased oxygen requirements. This is a case of a 72 y/o male with history of diabetes mellitus type 2, hypertension, obstructive sleep apnea and other comorbidities who presented to our institution due to SOB, dyspnea on exertion and and general malaise. Vital signs remarkable for hypoxemia, peripheral oximetry 89% requiring oxygen supplementation. Physical examination with decreased bilateral breath sounds. Respiratory panel + Influenza Virus A. Arterial blood gases with respiratory acidosis. D-dimer within normal limit (age-adjusted). Given minimal improvement and increased oxygen requirements, further evaluation with V/Q scan was done which was remarkable for left lower lobe pulmonary embolism. Risk factors for PE such as malignancy, medications, surgery, prolonged immobilization or genetic predisposition were ruled out. The patient was initiated on a treatment plan that included Oseltamivir, respiratory therapy involving inhaled albuterol and ipratropium bromide, intravenous glucocorticoids, and systemic full anti-coagulation. This course of action resulted in noticeable clinical improvement. Through the comprehensive examination of this clinical case, we aim to illuminate the complex interplay between Influenza and acute PE. It is of critical importance for primary care physicians to recognize the risk factors for PE, including infectious conditions like the Influenza virus in order to establish early identification and prevention, ultimately leading to a reduction in both morbidity and mortality.

**Poster No.:** V-30
**Title:** Skin as the Sole Clue: Recognizing Limited Immunoglobulin A Vasculitis in an Adult
**Authors:** José Breton-Arias, MD; Natalia Mestres-Franco, MD; Adriana Candelaria-Jimenez, MD; José Colón-Márquez, MD

**Abstract:**
Immunoglobulin A (IgA) vasculitis is a systemic necrotizing vasculitis that involves small-sized blood vessels mediated by immune complex deposition. It is characterized by palpable purpura in dependent areas, arthralgias, abdominal pain, or gastrointestinal (GI) bleeding, and renal injury. This disease commonly affects children under 15 years of age, usually preceded by upper respiratory tract infections (URTI). Rarely, limited expressions of IgA to the skin in the absence of systemic symptoms have been described in adults, making this diagnosis challenging. When limited to the skin, it manifests with violaceous lesions resembling conditions like syphilis, lichen planus, thrombocytopenic purpura, acute lymphocytic leukemia, systemic lupus erythematosus, and many others. Herein, we report an atypical case of an adult patient without an evident precipitating factor who presented with skin involvement as the sole manifestation of IgA vasculitis. A 54-year-old woman with a medical history of hypertension, type 2 diabetes mellitus, and asthma presented with violaceous skin lesions on her legs that had spread to the abdomen and arms one week prior to admission. The lesions were associated with a burning sensation and pruritus. She denied toxic habits, being sexually active, recent flu symptoms, travels, or exposure to sick contacts. Upon evaluation, she was afebrile and hemodynamically stable. Physical examination revealed symmetric violaceous palpable purpura with excoriations and erupted bullae on both lower extremities, as well as non-blanching papules coalescing into annular plaques on the abdomen and bilateral arms. Laboratory tests revealed leukocytosis with neutrophilic predominance, microcytic hypochromic anemia, hyperglycemia, stable renal function, urinalysis without hematuria or proteinuria, elevated inflammatory markers, and normal complements C3 and C4. She was admitted with suspicion of vasculitis with a superimposed skin infection and was started on acyclovir, high-dose steroids, and intravenous (IV) antibiotics. Serum immunoelectrophoresis revealed markedly elevated IgA. Serology was normal for antinuclear antibodies (ANA), antineutrophil cytoplasmic antibodies (ANCA), including proteinase-3 and myeloperoxidase antibodies, and cardiolipin antibodies. Due to a high suspicion of a previous asymptomatic URTI as the triggering factor, a workup was ordered, revealing elevated titers of influenza A and B antibodies. A punch biopsy of the right inner thigh was performed and revealed leukocytoclastic vasculitis with spongiotic dermatitis with intraepidermal microabscess. Wound culture was negative. Despite treatment, her initial skin lesions deteriorated, and she developed new lesions on her left arm and thighs, prompting the use of IV methylprednisolone and colchicine. Eventually, the patient was transitioned to oral prednisone and discharged home with colchicine, with a scheduled Rheumatology outpatient follow-up. Within two months of treatment, she experienced marked improvement and has remained in complete remission. This case highlights the importance of considering IgA vasculitis among the differential diagnoses in patients presenting with skin lesions, even in the absence of evident triggering factors or common systemic features, such as arthralgias, abdominal pain, or acute kidney injury. Although it is a self-limiting condition, physicians should be aware that it carries the risk of evolving into life-threatening complications, such as GI bleeding and end-stage renal failure. This underscores the critical significance of early diagnosis and prompt management.

**Poster No.:** V-31
**Title:** Unmasking Autoimmune Encephalitis: Hidden Threats to Brain Health
**Authors:** Harjeet Kaur, MD; Oscar Rodríguez, MD

**Abstract:**
*Introduction:* Autoimmune encephalitis is a complex relatively new category of immune-mediated disease involving the central nervous system that demonstrates a wide spectrum of clinical presentations. Symptoms could vary from a bewildering array of neurological and psychiatric symptoms, from cognitive decline and personality changes to seizures and movement disorders. The enigmatic nature of these symptoms often leads to a diagnostic challenge, with missed or delayed diagnoses. We report a case that helps identify the complexity and diversity of autoimmune encephalitis presentations, to emphasize the diagnostic challenges associated with this condition, and include the overlap of symptoms with other neurological and psychiatric disorders. *Case:* A 42-year-old woman without any significant past medical history presented to hospital with altered mental status, agitation, and psychosis. Initial routine work-up included CBC, CMP, urinalysis, urine toxicology, and head CT scan were essentially negative, hence was discharged home with instructions to follow up with outpatient psychiatry. After a few weeks, she again presented to the hospital with seizures and weakness. Her family members informed that she had been seen by a psychiatrist due to recurrent psychotic symptoms but were refractory to psychotropic medications. Additional workup included another head CT scan, a brain MRI, and lumbar puncture. She was started on central nervous system doses of intravenous acyclovir and standard coverage for bacterial meningitis. Imaging studies showed no abnormalities, yet her cerebral spinal fluid resulted with anti NMDAR antibodies. Autoimmune encephalitis was deemed the cause of her symptoms, responded satisfactorily to IV steroids, and was discharged home with outpatient follow-up with neurology. *Discussion:* Autoimmune encephalitis is a condition marked by its complexity and clinical heterogeneity. Patients may present with a myriad of neurological and psychiatric symptoms which typically develop quickly over weeks to a few months. Establishing the diagnosis is challenging and requires a thorough history and physical exam, as well as lab studies and imaging. While there is no single diagnostic feature that can make this diagnosis in isolation, recognizing a certain constellation of findings during the work-up of complex and atypical cases of new-onset altered mental status is crucial to confirm the diagnosis with serologic testing. Serum antibody testing can still ultimately lead to the diagnosis of autoimmune encephalitis despite unremarkable imaging results. Given atypical presentation of sudden onset of altered mental status with psychosis, the patient was initially misdiagnosed and received inappropriate and delayed treatment due to anchoring to a psychiatric mental illness which impacted negatively on her personal life and relationships. Early recognition and intervention of this condition is vital to identify and effectively manage and prevent disease progression which could potentially lead to permanent neurological damage. Awareness about encephalitis as a cause of acute psychosis may aid in communication between psychiatry and neurology teams to improve outcomes for complex patients.

**Poster No.:** V-32

**Title:** Misdiagnosed Infectious mononucleosis mimicking Epstein-Barr virus positive diffuse large B-Cell lymphoma on a young patient

**Authors:** Keishla Jiménez-Ortega, MD; Juan J. Adams-Chahin, MD; Felipe Soto-Saavedra, MD; Maria Vega, MD

**Abstract:**

*Introduction*: Epstein-Barr virus (EBV) is a herpesvirus affecting up to 90% of the population. EBV has been associated with various malignancies, including diffuse large B-cell lymphoma (DLBCL) and other lymphoma subtypes. Impaired cell-mediated immunity can facilitate unregulated viral proliferation and expression of viral antigens predisposing to transformation. However, acute EBV infection, albeit rare, may manifest with large or asymmetric lymph nodes or tonsillar masses, mimicking lymphoma and prompting biopsies for differential diagnosis. These biopsies can resemble Hodgkin lymphoma and non-Hodgkin lymphoma. We present a misdiagnosed case of infectious mononucleosis mimicking EBV-positive Diffuse B Cell Lymphoma on a young patient. *Case description:* A 21-year-old male with no medical history presented with symptoms of upper respiratory infection of one month of evolution. He visited the Emergency Department multiple occasions and was prescribed amoxicillin/clavulanate and received symptomatic treatment, but was discharged with no improvement. Subsequently, he was admitted to our institution due to sudden shortness of breath, tripod position with drooling, muffled voice and desaturation. Due to acute respiratory distress, the patient was intubated, and an emergent tracheostomy was performed. Physical examination was remarkable for somnolence, bilateral anterior neck lymphadenopathy, tracheostomy in place with Tmask, erythematous pharynx with whitish lesions, but no rashes or skin lesions. Abdominopelvic CT scan showed hepatosplenomegaly, a few scattered hypoenhancing structures throughout the spleen, and extensive intraperitoneal and retroperitoneal lymphadenopathy, raising concern for lymphoma. Laboratory findings were remarkable for mild leukocytosis and mild elevated AST. A peripheral smear revealed atypical lymphocytes 2+, toxic granulation and target cells. The Monospot Screen tested positive. During tracheostomy placement, hypertrophied and exophytic masses were observed throughout the oropharynx, for which biopsy samples were taken. Initial pathological analysis identified abnormalities in the tonsil, oropharynx and tongue, while immunochemistry indicated the presence of EBV-positive diffuse large B-cell lymphoma, not otherwise specified. The patient was transferred to Ward and scheduled for follow-up at the Oncology Clinics upon discharge. However, prior to treatment initiation, a new pathological examination revealed EBV virus-positive B cells with extensive necrosis consistent with mononucleosis in the left and right tonsil, base of the tongue and posterior oropharynx. The necrosis was consistent with infectious mononucleosis with immunochemistry showing positive atypical lymphocytes CD3, CD5, CD10, CD15, C-myc, CD20, CD79,LMP1,EBNA2 and MUM1 among others. Infectious workup, encompassing viral panels for HIV, Hepatitis, and Herpes Virus, as well as Mycoplasma testing, returned negative results. *Discussion*: EBV initially infects oropharyngeal epithelial cells, then replicates and spread to B-lymphocytes, posing an oncogenic potential due to the capacity of the virus to latently survive within B-cells. EBV-positive DLBCL typically occurs in older individuals; however, given the immunochemistry findings, our case underscores the possibility that it can affect young, immunocompetent patients. When a patient presents with typical EBV symptoms but further improved lymphadenopathy, it,Äôs crucial to suspect non-lymphoma-related EBV, which lead to a pathology revision in our case, given suspicion of cancer misdiagnosis. In order to avoid the emotional and physical burden of a cancer diagnosis and therapy, timely recognition of EBV-related conditions and accurate diagnosis, are essential.

**Poster No.:** V-33
**Title:** A Case of New-Onset Hyperkalemia following Unilateral Adrenalectomy for Primary Hyperaldosteronism
**Authors:** Marimar Hernández Hernández, MD

**Abstract:**
Primary hyperaldosteronism was thought to be a rare cause of secondary hypertension in the United States. However, recent epidemiologic data estimates that approximately 5-15% of patients with hypertension is due to hyperaldosteronism. Some data suggests that this number may be higher due to patients being widely underdiagnosed. It is important to recognize this diagnosis since most of them can be cured by surgical approach. Patients who undergo adrenalectomy for primary hyperaldosteronism need to be closely monitored for electrolyte disturbances. Post-adrenalectomy hyperkalemia in hyperaldosteronism is thought to be secondary to resultant hypoaldosteronism caused by suppression of the juxtaglomerular apparatus and the contralateral adrenal gland secondary to the volume-expanded state before unilateral adrenalectomy. It has been reported in a subset of patients and it is a known cause of increased morbidity and mortality as patients may present with severe hyperkalemia. We present the case of a 63-year-old male patient with medical history of hypertension who was diagnosed with primary hyperaldosteronism when he presented with hypokalemia in routine laboratories performed after an elective laparoscopic cholecystectomy. The patient,Äôs laboratories were remarkable for potassium levels at <2mEq/L, normal sodium levels, and further workup obtained which was remarkable for plasma aldosterone concentration: plasma renin activity (PAC/PRA) at 216. The medication regimen at home included Lisinopril 40mg p.o. daily, Nifedipine 60mg p.o. daily, and oral potassium replacement. His blood pressure was somewhat controlled with these medications. The patient was consulted to the Endocrinology service which recommended further imaging studies. Abdomino-pelvic CT scan was remarkable for a lipid-rich right adrenal adenoma measuring 1.5 cm with 24 Hounsfield units. The patient was initially managed with aldosterone antagonists and then a right adrenalectomy was performed successfully after adrenal vein sampling. Approximately two weeks after the adrenalectomy, the patient was a call-back to the Emergency Room (ER) due to hyperkalemia 6.5mEq/L. Upon arrival at the ER, there were no EKG changes associated changes of hyperkalemia and he was given appropriate treatment for potassium levels. The patient was started on Fludrocortisone with excellent clinical response and is currently being followed at Endocrinology clinics. The etiology of this patient,Äôs hyperkalemia soon after adrenalectomy demonstrates the effect of relative hypoaldosteronism from chronic suppression of the left adrenal gland due to aldosterone excess produced by the right adrenal adenoma. Fludrocortisone is a synthetic mineralocorticoid and it has potent effects in reducing potassium levels mediated by sodium reabsorption and potassium excretion at the distal renal tubules. Routine monitoring of laboratories and early treatment in these patients is crucial to prevent development of electrolyte disturbances that may ultimately lead to life-threatening arrhythmias.

**Poster No.:** V-34

**Title:** A Case of Torsades de Pointes in a Patient with Non-Small Cell Lung Cancer on Osimertinib Therapy: A Multifactorial Evaluation

**Authors:** Yolanda Hidalgo, D. MD; Diago- Blanco, MD; J. Torres De Jesus, MD; D. Boodoosingh- Casiano; MD; M. Echevarría- Quintana, MD

**Abstract:**

*Introduction:* Torsade de Pointes (Tdp) is a rare life-threatening irregular arrhythmia that can be caused by QT interval prolongation. Osimertinib is a third- generation oral epidermal growth factor (EGFR) tyrosine kinase inhibitor (TKI) indicated for EGFR mutated non-small cell lung cancer (NSCLC) known to cause cardiotoxicity. Of the 1479 TAGRISSO-treated patients in clinical trials, no QTc-related arrhythmias were reported despite documented increases in QTc intervals. Our case report presents an elderly patient with NSCLC on Osimertinib therapy that develops a TdP during hospitalization, with multiple risk factors that lead to the adverse event. To our knowledge, there are no known published or reported cases of Tdp associated to Osimertinib therapy in the Caribbean region. *Case presentation:* 86-year-old Hispanic women with PMHX of hypertension, diabetes mellitus type 2 and NSCLC on adjuvant therapy with Osimertinib is transferred to our institution with a diagnosis of symptomatic bradycardia. Upon evaluation, the patient reported multiple ED visits and subsequent hospitalizations in varying institutions following episodes of syncope with associated palpitations. Admission electrocardiogram (ECG) evidenced a 2 second TdP event with spontaneous resolution, QTc 486ms. Within 48 hours from admission, the patient presented an episode of sustained Tdp refractory to Osimertinib discontinuation and magnesium supplementation that progressed to a 3rd degree AV block requiring dual chamber pacemaker placement. The patient was discharged with positive outcomes and subsequent ambulatory monitoring. *Discussion:* QT interval prolongation varies between individuals, and is influenced by multiple factors such as age, gender, baseline heart rate, electrolytes, drugs, cardiac diseases, central nervous system diseases, metabolic diseases, infectious diseases, tumors. Our patient had several risk factors and worrisome symptoms associated to imminent syncope that could be predisposed to Tdp while on Osimertinib therapy. *Conclusion:* Additional awareness of the risk of fatal arrhythmias, such as Tdp, in patients on Osimertinib therapy is needed among physicians. Factors such as electrolyte disturbances, age and polypharmacy can contribute to increased incidence of fatal arrythmias. We suggest that patient on Osimertinib therapy should have a periodically multidisciplinary monitoring with ECG for QT prolongation, electrolyte assessment, medication reconciliation and signs and symptoms assessment of cardiogenic events to decrease the risk of adverse events as malignant arrhythmias.

**Poster No.:** V-35
**Title:** A dilemma in anticoagulation: Management of atrial fibrillation in a patient with absence of the left atrial appendage
**Authors:** Roberto Lapetina Arroyo, B.S.; Brian Monge Barrios B.S.; Hilton Franqui Rivera MD; Antonio Orraca Gotay MD; Amanda P. Marrero González, MD

**Abstract:**
*Introduction:* Absence of the left atrial appendage is an exceedingly rare occurrence that could have important implications for the management of anticoagulation in patients with concomitant atrial fibrillation. Indeed, the majority of cases of left atrial appendage absence occur in the setting of atrial fibrillation. *Case Description:* We report the case of a 63-year old Puerto Rican female with a history of hypertension and type 2 diabetes mellitus who suffered multiple hemorrhagic strokes. During the indicated stroke workup, the patient was found to have paroxysmal atrial fibrillation. Given the patients high risk for thromboembolism and contraindications to anticoagulation therapy, the patient was referred for left atrial appendage occlusion. Pre-procedural transesophageal echocardiography failed to identify the left atrial appendage. Evaluation by way of cardiac computed tomography confirmed absence of the left atrial appendage. Left atrial appendage occlusion could not be carried out. The patient was already off anticoagulation due to her recent episode of intracranial hemorrhage. The patient has not had thrombotic episodes nor has experienced a recurrence of hemorrhagic stroke at 6 months follow up. *Discussion:* To our knowledge this is the first such case report that reports left atrial appendage absence in the setting of multiple hemorrhagic strokes. Given the rarity of the condition and lack of available guidelines, the most viable way to currently manage this patient population is on a case-to-case basis. However, we propose that absence of the left atrial appendage could confer a decreased risk of thromboembolic phenomena in patients with atrial fibrillation.

**Poster No.:** V-36
**Title:** Transthyretin-type cardiac amyloidosis-induced recurrent pleural effusions. A case presentation.
**Authors:** Humberto Lezcano Ortíz, MD; Franklin Diaz, MD; Angel Valles, MD; Alberto Riverón, MD

**Abstract:**
*Rationale:* Pleural effusion is a common problem dealt by most of the practicing clinicians. Some causes for pleural effusion are less often considered as a differential diagnosis owing to its rarity. Amyloidosis describes a group of severe systemic diseases characterized by accumulation of insoluble protein fibrils in tissues that can cause organ dysfunction. Involvement of the heart is the most important prognostic determinant, the earlier it is detected the better the survival. Transthyretin amyloidosis is a disease caused by deposits of this protein produced mainly by the liver. Pleural amyloidosis has been reported rarely. Transthyretin cardiac amyloidosis is a recognized cause of heart failure associated with pleural effusions. Appropriate evidence on echocardiography or cardiac MRI, grade ,â•2 myocardial uptake of 99mTc-pyrophosphate, diphosphono-1,2-propanodicarboxylic acid, and hydroxymethylene diphosphonate is diagnostic of transthyretin cardiomyopathy, in which case endomyocardial biopsy is unnecessary.
*Patient concerns:* A case of a 63-year-old male with no significant past medical history, with a chief complaint of chest pain, dyspnea, and bilateral lower extremities edema was admitted to hospital. *Diagnosis and follow-up:* Initial ECG showed low voltage and anterolateral abnormal repolarization with no acute S-T changes. Workup also displayed large right sided pleural effusion, slightly elevated Troponins along with elevation of BNP, CPK, and CK-MB. The echocardiography showed moderately increased left and right atrial size, elevated right ventricular systolic pressure, severe left ventricular hypertrophy with an estimated EF of 65%, and impaired LV relaxation. Patient had a Grade 3 Ca PYP scan consistent with transthyretin amyloidosis. Pleural Fluid Analysis displayed a transudative pattern with reactive mesothelial cells, elevated WBC predominantly mononuclear cells, and negative for malignancy. Cardiac catheterization with ventriculography revealed normal coronary arteries, and moderately increased LVEDP. Serum and urine protein electrophoresis with immunofixation showed no M spike protein, however, urine immunofixation had abnormal lambda light chains. After being discharged in stable condition the patient was readmitted a week later with generalized weakness and shortness of breath. CXR showed recurrent large right sided pleural effusion. Because of multiple recurrent unilateral pleural effusions, a fifth thoracocentesis was performed with similar characteristics. A fat pad biopsy with congo red was positive for amyloidosis.
Lessons: Amyloidosis is a rare disease which can be ignored by many clinicians. It needs to be diagnosed promptly since the prognosis of amyloidosis is poor. Clinicians must improve relevant understanding of the disease to not delay the diagnosis and treatment. We must be alert to the occurrence of pleural effusions among amyloidosis patients and think of the possibility of amyloidosis in patients with recurrent pleural effusion.

**Poster No.:** V-37
**Title:** Diabetes Insipidus secondary to an immune mediated neurohypophysitis in an oncology patient successfully treated with steroid therapy.
**Authors:** Anthony López, MD; Luis Sepúlveda, MD

**Abstract:**
In 2023, 2.0 million people will be diagnosed with cancer in the United States according to the SEER. Over the last years, immunotherapy has been increasingly used as standard treatment for oncology patients. Immune check point inhibitors (ICI) have shown tumor regression in both lymphoproliferative neoplasm and solid tumors for which plays a vital role in patient care. However, the toxicity profile of these ICI is broad and early recognition by physicians is vital. We present the case of a 31-year-old male with past medical history of gastroesophageal reflux disease who has been complaining of dysphagia was diagnosed by his gastroenterologist. Unexpectedly his upper endoscopy revealed a distal esophageal mass and biopsy revealed an adenocarcinoma. His clinical staging by PET/CT scan and EUS was IIIB and was treated with neoadjuvant chemotherapy followed by surgical resection and finished with adjuvant chemotherapy. He had high risk disease with a borderline pulmonary nodule post chemotherapy for which oncology team decided to proceed with adjuvant immunotherapy Nivolumab. During the course of Nivolumab, the patient complained of sudden polyuria, polydipsia with headaches and general malaise. He visited the emergency department and vital signs revealed bradycardia and hypertension. His comprehensive metabolic panel revealed hypernatremia, hyperchloremia, and increase osmolarity. Brain MRI was performed, and posterior pituitary was flattened and found with edema consistent with injury to the neurohypophysis. The patient was treated with Prednisone 1mg/kg and Desmopressin unfortunately was not available immediately. He was monitored daily and once the patient started the prednisone, the polyuria and polydipsia improved along with his headaches. Antihypertensive medications were started but his blood pressure normalized with steroids and subsequent laboratory test revealed improved hypernatremia with hyperchloremia. Nivolumab was discontinued and prednisone treatment was tapered until discontinuation. The patient showed improvement of electrolytes and serum osmolarity. Brain MRI would be repeated at three months to assess improvement but clinically the patient has been found asymptomatic from his episode. We present this case given that early recognition of Immune Related Adverse Events manifestations can be challenging due to signs and symptoms being cofounded with other problems. Immunosuppressive therapy is required in patients receiving ICI therapy and delay in administration may have permanent consequences on the patient. Given the increased role of ICI in oncology patients, clinicians from all fields needs to be oriented towards diagnosis multidisciplinary care.

**Poster No.:** V-38
**Title:** Staphylococcus auricularis: An Unlikely Culprit for Vertebral Osteomyelitis
**Authors:** José López Ventosa, MD; Gabriel Pérez Cordero, MD; Gerardo Cintrón, MD; Nicole Rassi Stella, MD

**Abstract:**
*Introduction: Staphylococcus auricularis* is a commensal gram-positive bacteria found primarily in the cerumen of the ear. Since its discovery in 1988, little has been reported on the organisms' infective properties. *Case description:* We present the case of a 65-year-old female with a medical history of diabetes mellitus type II, hypertension, and recurrent urinary tract infections (UTIs) who arrived at our institution due to worsening bilateral paresthesia, back pain, and malaise. The patient reported that these symptoms have developed following a recent hospitalization approximately four months earlier. She reported no alleviating or worsening activities and denied experiencing shortness of breath, subjective fever, nausea, emesis, diarrhea, or chest pain. Physical examination was remarkable for blood pressure at 93/50mmHg, respiratory rate at 18 resp/min, heart rate ranging between 80-90bpm, body temperature at 36¬∞C, and lumbar tenderness at the level of L1. CT was remarkable for 50% vertebrae height in the regions of T12-L2, along with T2-weighted hyper-intense regions in the laminae, all suggestive of osteomyelitis and diskitis. Further imaging findings suggested myositis of the paraspinous and iliopsoas muscles at the level of T12-L4 vertebral bodies. The patient's prior hospitalization was due to gastroenteritis and sepsis that was later complicated by vertebral osteomyelitis (VO). CT-guided phlegmon culture was positive for methicillin resistant Staphylococcus auricularis. The patient completed 47 days of antibiotic treatment with vancomycin and was discharged home to complete 21 more days. On the current hospitalization, the patient was initially treated with broad spectrum antibiotic therapy with vancomycin 1g q12hr and cefepime 2g q12h. Orthopedic surgery was consulted, resulting in a T10-L5 decompression surgery in which no culture was obtained due to technical difficulties. In line with infectious diseases services recommendations, the patient completed 14 days of cefepime and vancomycin therapy. Since no further culture was obtained by orthopedic surgery, Infectious Diseases services recommended antibiotic treatment using the patient,Äôs past phlegmon culture. Daptomycin was started after 14 days of vancomycin therapy. With interdisciplinary work with physical and rehabilitation therapy, the patient showed marked recovery throughout her hospitalization. The patient was discharged to a skill nursing facility to complete 6-8 weeks of daptomycin therapy. *Discussion:* To our knowledge, this is the first reported case of *Staphylococcus auricularis* as a culprit for Osteomyelitis. This case amplifies and shines light to the spectrum of potential commensal organisms that may cause OM and VO. Vertebral Osteomyelitis can lead to increased mortality and decreased quality of life, emphasizing the importance of effectively accounting all potential causative organisms and administering appropriate treatment to avoid further complications.

**Poster No.:** V-39
**Title:** Unusual Finding of a Human Papillomavirus (HPV) 16 infection related Anorectum Adenomatous Polyp
**Authors:** José Machicote, MD; L. Ortíz Carrasquillo, MD.; J.M. Cintrón Rosario, MD; I. Echenique Gaztambide, MD; F. García Ricardo, MD

**Abstract:**
*Background*: HPV is a double-stranded DNA oncogenic small virus. HPV infection is considered the most common worldwide and among the predisposing factors are oral, vaginal and anal sexual practice. The beginning of a sexual life at an early age and the number of sexual partners explains the increase in its incidence. Annually in the E.U., HPV causes about 36,000 cases of cancer in both sexes. Recently it has been pointed out that the prevalence of HPV is associated with non-genital cancer. The CDC reported an average of 7,531 HPV associated anal cancer annually. *Case Report:* We report a case of a 67-year-old female who refers diarrhea and positive FOBT. She has a medical history of hypertension, hypothyroidism, hyperlipidemia, endometriosis and breast cancer and family history of colon cancer (father) and breast cancer (sister). Patient denies smoking, drug use, exercises sporadically and has practiced anal sex for years. She has a 2019 Vaginal Pap Smear negative for squamous intraepithelial lesion and negative for HPV 16 or 18. A colonoscopy was performed which showed a flat and ulcerated 15 mm growth from the rectum to the anal canal, also normal biopsies obtained from the rectum to the terminal ileum to rule out microscopic/collagenous colitis as the cause of diarrhea. Biopsies lesions are consistent with Tubulovillous Adenoma. The patient underwent a surgical procedure for excision of the 1.5 cm posterior rectal polyp with an ulcerated appearance and mucosal changes associated with hemorrhoids. There was also excision of an additional margin of 0.5 cm without complications. Pathology shows an extensive area of flat glandular low-grade dysplasia, focally reaching high grade dysplasia based on cytologic atypia. Since HPV driven non-squamous neoplasia have been recently described in the anorectum, a p16 was performed, which showed positive (strong diffuse) expression. In an extra departmental consultation performed at Johns Hopkins University School of Medicine, they agree with a diagnosis of high-grade dysplasia in the anorectal glandular mucosa with no invasive component. Anal Squamous Mucosa within normal limits. High risk HPV-ISH is positive, supporting that the lesion represents an HPV-driven neoplasia, though these exophytic lesions have been designated asa denocarcinoma in the original description. *Conclusion*: This case illustrates the unusual finding of HPV associated tubulovillous adenomatous anorectum polyp in women. It has been established that the persistence of HPV is more associated with squamous cell carcinoma, however the relationship between HPV and anal adenocarcinoma has not been well established or studied. The objective of presenting this case is to conduct research to other HPV-related cancers to advance our understanding of how HPV causes cancer, also to evaluate new screening practices that may be easier to use in low resource settings and foment the prevention and early detection of HPV.

**Poster No.:** V-40
**Title:** Bilateral Lower Extremity Ulcers: An Unusual Presentation of Granulomatosis with Polyangiitis
**Authors:** Tania Aguila Rivera, MD; Víctor Mendoza-Cruz, MD; José Breton-Arias, MD; Juan Santiago-González, MD

**Abstract:**
Granulomatosis with polyangiitis (GPA) is a rare systemic disease characterized by granulomatous inflammation and necrotizing vasculitis of small and medium-sized blood vessels. While it typically affects the upper respiratory tract, lower respiratory tract, and kidneys, GPA can manifest in a limited form in about 5% of cases. Cutaneous manifestations of GPA can vary widely, including papules, nodules, purpura, ulcers resembling pyoderma gangrenosum, or even severe necrotizing lesions leading to gangrene. Despite this spectrum of potential dermatological involvement, cases where cutaneous lesions serve as the primary and initial presentation of GPA remain extremely rare. We present the case of a male patient with cutaneous lesions as the sole and initial manifestation of GPA. A 31-year-old male patient with a medical history of asthma presented with a three-week history of worsening skin lesions on his bilateral lower legs. Initially appearing as red papules, these lesions progressed to become tender, bullous, and suppurating ulcers despite two weeks of outpatient treatment with Doxycycline. Physical examination highlighted by ecchymotic plaques and ulcers on both lower extremities. The ulcers had erythematous and undermined borders associated with yellow purulent discharge and foul odor. Initial laboratories were unremarkable except for mildly elevated erythrocyte sedimentation rate (ESR). Due to infection concerns, the patient was started on broad-spectrum antibiotics with Vancomycin and Cefepime. A comprehensive differential diagnosis, including neoplastic, hematological, inflammatory, and infectious causes, were considered. Rheumatology and dermatology departments were consulted to provide recommendations and insights into the diagnostic process. Workup was remarkable for negative blood cultures and negative serologies for viral hepatitis, human immunodeficiency virus, and syphilis.,ÄØ Echocardiogram, antinuclear antibodies, rheumatoid factor and cryoglobulins were negative. Sterile skin culture grew Serratia Marcescens and Pseudomonas Aeruginosa. Skin biopsy demonstrated perivascular and interstitial infiltrate of neutrophils with nuclear dust consistent with leukocytoclastic vasculitis. Further testing revealed positive anti-neutrophil cytoplasmic antibodies (C-ANCA), and positive proteinase 3 (PR3). Based on the C-ANCA positivity, absence of systemic involvement, and biopsy findings, the patient was diagnosed with limited GPA, primarily affecting the skin, with a superimposed bacterial infection. Treatment was initiated with Prednisone at a dose of 1 mg/kg/day, in addition to antibiotics. After one week of treatment, the patient significantly improved the lesions. Subsequently, he was discharged with a medication regimen comprising Prednisone 40 mg per day, Methotrexate 12.5 mg per week, and Folic Acid 1 mg per day. Granulomatosis with Polyangiitis (GPA) can present a formidable challenge for physicians and typical manifestations are absent. While cutaneous involvement is often observed as the disease progresses, it rarely emerges as the initial or sole symptom. This case underscores the importance of a multidisciplinary approach, involving dermatologists and rheumatologists, to ensure an accurate and timely diagnosis. It also highlights how non-infectious systemic diseases like GPA should be included in the differential diagnosis when evaluating patients with non-healing skin lesions. Early detection significantly enhances the prognosis, reduces complications, and elevates the overall quality of care for affected individuals.

**Poster No.:** V-41
**Title:** Atypical Case of Detox Tea-Induced Immune Thrombocytopenia
**Authors:** Mariana Martínez Aguiar, MD; Héctor Quintero Alvarez, MD

**Abstract:**
Immune thrombocytopenia (ITP) is caused by autoantibodies to platelet surface membranes. It can be a primary diagnosis or occur secondary to other disorders. Herbal remedies containing Burdock and Yellow dock have been rarely described as a secondary cause of Immune thrombocytopenia with only a few published cases. In this case report we discuss a 37-year-old male, with known medical history of atopic dermatitis that presented to the Emergency Department with gingival, chest and bilateral lower extremities petechiae as well as ecchymosis on chest, abdomen, upper and lower extremities of two weeks of evolution. He denied fever, chills, abdominal pain, jaundice, illicit drugs, or new medication use. Patient only referred having recently consumed a weight loss Detox Tea twice a day for one month. Initial outpatient laboratories ordered by Primary Care Physician reported severe thrombocytopenia of 8,000/µL and was immediately taken to our hospital via ambulance. Patient was consulted to the Internal Medicine service and was admitted with severe thrombocytopenia. He responded to treatment with one platelet transfusion and a course of IV steroids, with platelets in increasing trend from 8,000/µL to 234,000 /µL during a four-day period. A diagnosis of Immune Thrombocytopenia was made after ruling out other causes including Hepatitis A, B, C virus infection, HIV 1-2 and Covid-19 infection. Patient was discharged with a short course of oral Prednisone, advised to visit our outpatient Hematology/Oncology Clinic as well as discontinuation of the herbal tea. Follow up hematologic panel was within normal limits. Arctium lappa, known as Burdock, is a popular medicinal plant commonly used by the Chinese population because of its potential benefits such as improving digestive system function, decreasing blood glucose levels, and containing antithrombotic and antioxidant properties. ITP in this patient was most probably due to the use of the Detox Tea that contained this cleansing herb. A possible pathophysiologic mechanism may be that saccharides from burdock, glycosylate platelet receptors and cause structural changes affecting receptor expression, platelet clearance, and signal transduction. The immune system recognizes these glycosylated platelets as invaders which activate an immune attack, thus producing thrombocytopenia. This case highlights the importance of taking a thorough history, including inquiring about herbal tea or other supplement ingestion when investigating the cause of thrombocytopenia. Although ITP after the use of these supplements is rare, acknowledgement of this clinically important side effect is critical and should be further investigated to raise awareness in the medical and general community.

**Poster No.:** V-42
**Title:** Heparin flushes in hemodialysis patients, an uncommon but possible etiology of HIT type 2.
**Authors:** Víctor Mendoza Cruz, MD; Emily Vázquez, MD; Marcon Soto, MD; Alexandra Picó, MD; Tania Aguila, MD; Gabriel Pérez, MD; Renil Rodríguez, MD

**Abstract:**
*Introduction:* Heparin-induced thrombocytopenia type 2 (HIT) is an immune-mediated sensitization to heparin products. Clinical, laboratory, and radiological aspects are taken into consideration in order to make this diagnosis. HIT diagnosis might appear like an easy one; however, its early discovery remains challenging even for experienced physicians. Mainly described secondary to continuous infusion of unfractionated heparin or its subcutaneous administration, it is often forgotten that even discrete exposures to this medication might cause this disorder. This might happen during the exposure of small amounts, like those used in intermittent heparin flushes in ESRD patients relying on hemodialysis (HD). *Case Presentation:* A 57 years-old male patient with a history of hypertension, coronary artery disease, heart failure with reduced ejection fraction, and chronic kidney disease, was brought to the emergency department due to respiratory distress, severe high anion gap metabolic acidosis, and oliguric acute kidney injury secondary to indiscriminate NSAID use. He was placed on mechanical ventilation and urgent kidney replacement therapy. After initial stabilization, the patient was extubated successfully. Hemodialysis sessions were to continue, for which a permanent HD subclavian catheter was placed. Despite initial clinical improvement, laboratories reported a consistent decline of platelets that began on day 10 after the initial heparin exposure during the flushing of the HD catheter. After the 3rd day of the platelet decline, the patient reported right leg pain and right-side neck discomfort. On physical examination, there was right leg pitting edema, asymmetry, and tenderness to calf palpation with Homman sign positive. The right side of the neck was swollen and tender. Limited bedside US was remarkable for a hyperechoic area inside the jugular vein with interruption of venous flow. Official US Venous Doppler reported an extensive thrombosis of the deep and superficial venous system of the lower extremity. The right subclavian vein and internal jugular vein were also completely occluded by acute thrombi. A HIT diagnosis was suspected, and the platelet factor 4 antibody test was positive. After stopping heparin exposure, the patient was started on an Argatroban drip and transferred to the ICU for close PTT monitoring. Given the extension of the thrombus and its significant obstruction, the patient was taken to thrombectomy with successive recanalization of the right leg, jugular, and subclavian venous system. After seven days of Argatroban treatment, he was transitioned to Warfarin and discharged home with a clear indication to avoid heparin flushes while HD, in conjunction with the Nephrology team. *Discussion:* Heparin-induced thrombocytopenia is an uncommon condition associated with venous and arterial thrombosis after exposure to heparin products. Heparin exposes and binds to platelet factor 4 forming a complex that will induce further antibody formation. Most cases occur with evident Heparin product administration in the form of drips or subcutaneous administration. However, heparin flushes, though considered by many as negligible exposure, can surprisingly cause HIT described as Haemodialysis-related-heparin-induced thrombocytopenia and might occur in up to 12 % of dialysis patients. Physicians must be mindful of HIT as a potential cause of new-onset thrombocytopenia in HD patients with heparin-flushed catheters.

**Poster No.:** V-43
**Title:** Hunting a Large Iatrogenic Tracheoesophageal Fistula
**Authors:** Jesús Merced Román, MD; Andrew Engel-Rodríguez, MD; Marilee Tiru-Vega, MD; Vanessa Fonseca-Ferrer, MD; William Rodríguez-Cintrón, MD; Yomayra Otero-Domínguez, MD

**Abstract:**
*Introdution*: A tracheoesophageal fistula (TEF) is a connection between the esophagus and the tracheobronchial tract and is mostly divided into acquired and congenital etiologies. The acquired type of TEF might be caused by either malignancy or a host of nonmalignant entities. Nonmalignant acquired TEFs occur due to extended periods of endotracheal intubation, traumatic incidents, ingestion of corrosive substances, endoscopic or surgical interventions, radiotherapy, and infectious or inflammatory conditions. The clinical presentation of TEF can vary depending on its location, size, and rate of development. A study found the primary signs and symptoms were cough, aspiration, fever, dysphagia, pneumonia, hemoptysis, and chest pain. Additional signs that may be observed include abdominal bloating during ventilation, decreased tidal volume, worsening oxygenation, recurrent pulmonary infections, and repeated unsuccessful attempts to wean from the ventilator. Since TEFs are unlikely to heal independently and can eventually lead to respiratory complications and death, assessing the risk and promptly initiating diagnostic measures is crucial. *Clinical Presentation:* This is a 61-year-old veteran Hispanic male with medical history of hypertension, type 2 diabetes mellitus, and seronegative rheumatoid arthritis that was transferred to our institution from a trauma-specialized hospital after a prolonged hospitalization following a motor vehicle accident that resulted in multiple injuries and complications. Upon arrival to the institution, assessment about clinical presentation was made for which was diagnosed with bilateral bronchopneumonia. He was admitted to the intensive care unit (ICU) for further management. Patient developed recurrent aspiration pneumonitis, aerophagia, tympanic abdominal bloating, and a positive Ono's sign; symptoms present were secondary to diagnosed tracheoesophageal fistulas (TEFs) by Esophagogastroduodenoscopy. Upon identification of the TEF, conservative measures were implemented. Otorhinolaryngology (ENT), Pulmonary Service and Gastroenterology service worked in conjunction to optimize patient for surgical intervention. Once clinically stable, was transferred, and surgical repair by an interdisciplinary team of surgeons consisting of general surgery, head and neck, and plastic surgery was performed. *Discussion*: Tracheal injuries and erosions are typically caused by traumatic intubations, aggressive airway suctioning, and ischemia of the tracheal wall due to compression by the endotracheal or tracheostomy tube cuff. Diagnosis of TEF can be challenging and, in most cases, requires high suspicion. Currently, there are no established guidelines for diagnosing and managing TEF. Clinical assessment and imaging techniques like barium swallow, CT scans, bronchoscopy, and endoscopy aid in diagnosis. Management of TEF requires a multidisciplinary approach, and surgical repair is regarded as the primary curative treatment for suitable candidates. However, not all patients or lesions are suitable for surgical repair. Palliative or local therapies using stents or other interventions may be considered for patients who are not good surgical candidates, require bridging for surgical correction, or have lesions unsuitable for surgery. Individualized treatment approaches and close multidisciplinary collaboration among healthcare professionals are essential to optimize the management of TEF and improve patient outcomes. To our knowledge, this is the largest TEF ever reported in Puerto Rico.

**Poster No.:** V-44
**Title:** Cefepime: "Get out of my Head"
**Authors:** Evelyn Morales Quiñones, MD; Janice Cuevas MD

**Abstract:**
*Introduction:* Cefepime induced neurotoxicity has been documented as an adverse effect in patients with renal dysfunction, more so in patients on renal replacement therapy. Symptoms are associated with decreased cefepime clearance, because of its renal excretion. Toxicity symptoms include aphasia, encephalopathy, decreased consciousness, myoclonus, and seizures. The mechanism of action of cefepime neurotoxicity has not been established but is thought to be related to gamma-aminobutyric acid antagonism. Although most cases of neurotoxicity are associated with inappropriate dosing, at least 25% occur despite appropriate dose adjustment. *Case Presentation:* A 77-year-old woman with medical history of diabetes mellitus type 2, chronic kidney disease 3a and hypertension presented to the hospital with 1 day of left sided ear pain, associated with headaches and with left sided facial droop. Laboratory work-up was remarkable for an acute over chronic kidney injury with creatinine of 2.0mg/dL, GFR 23, with creatinine clearance of 30ml/min. Head CT scan showed acute left mastoiditis. The patient was started on empiric broad-spectrum antibiotic therapy with cefepime 1g intravenously (IV) every 12 hours and Vancomycin 1 g IV daily. After two days of IV hydration, patient,Äôs kidney function improved with a decreased in creatinine to 1.2mg/dL, therefore cefepime dose was adjusted to 2g IV every 8 hours based on renal function, for treatment optimization due to leukocytosis on increasing trend. On day two, after cefepime dose was adjusted the patient became disoriented, hypoactive, not following commands and developed aphasia. Repeat CT scan and Lumbar Puncture were done to rule out Central Nervous System infectious process or cerebrovascular event. Both studies were unremarkable, except for the findings of left mastoiditis in the CT scan. Patient was transferred to the ICU for close monitoring due to Glasgow coma scale of 11/15 (E4, V2, M5). Due to normal head CT scan results and lumbar puncture, medication-induced neurotoxicity was considered. On day seven, cefepime was discontinued. In the following two days the patient's mental status started to improve until it went back to baseline, making the diagnosis of cefepime induced neurotoxicity, more likely. *Discussion:* Our goal is to provide awareness of cefepime induced neurotoxicity, because early identification can be challenging. De novo altered mental status must be quickly evaluated and if not fully explained by an acute infectious process or a cerebrovascular accident should raise the suspicion for medication induce neurotoxicity. It is imperative for clinicians to recognize cefepime induced neurotoxicity because definite treatment is cessation of the antibiotic therapy. The highlight of this case is that even though empiric treatment was adjusted based on kidney function, the patient presented with this rare adverse event. Recognition of the syndrome is key for prevention of morbidity and mortality associated with cefepime.

**Poster No.:** V-45
**Title:** Non-Hodgkin's lymphoma: An unusual cause of monoparesis
**Authors:** Héctor Nieves, MD; Kevin Rodríguez Arocho, MD; Cristian García Bardina, MS; Melissa Beyley, MD

**Abstract:**
The etiology of non-Hodgkin's lymphomas (NHL) is largely unknown. It presents insidiously with slow growing lymphadenopathy over the course of months to years and may be associated with cytopenias, hepatomegaly and splenomegaly. It is most common during the ages of 65 to 74. Diagnosis is based in comprehensive histologic and immunophenotypic, cytogenetic and molecular studies. Prognosis varies depending on the histologic subtype with diffuse large B-cell lymphoma (DLBCL) being the most common with two thirds of patients being cured after initial chemotherapy. Only 10-35% of patients will present with primary extranodal lymphoma. Soft tissue involvement as a primary event is rare and is usually confused for sarcomas. Additionally, if motor deficits are present, it usually leads physicians to suspect a cerebrovascular accident first leading to delay diagnosis and treatment. 78-year-old veteran with no medical history who complained of right arm pain with right side chest wall mass of two-week progression. He denied fever, night sweats or weight loss. Denied personal or family history of malignancy, viral infections and exposure to pesticides. However, stated exposure to agent orange during Vietnam war. Physical examination was remarkable for protruding right chest wall mass, progressive loss of motor function, grip and strength of his right arm and axillary lymphadenopathy. Laboratories were unremarkable. Chest CT showed a large heterogeneous enhancing soft tissue mass in the right chest wall at the level of the right pectoralis muscle demonstrating hypervascularity and infiltration of the musculature measuring 9.9 x 3.9 cm. PET CT confirmed hypermetabolic process at the site, with involvement of the right-sided diaphragm, pleura and hypermetabolic lymphadenopathy (bilateral axillary, mediastinal, supraclavicular and upper retroperitoneal). Ultrasound guided left axillary lesion biopsy was performed which demonstrated high-grade DLBCL with a Ki67 of 98%. Neoplastic cells were immunoreactive to CD20, CD22 and FMC-7. Patient was treated with high dose IV steroids and started on polatuzumab vedotin, rituximab, cyclophosphamide, doxorubicin and prednisone (pola-R-CHP). Aggressive NHL subtypes such as high-grade DLBCL present with rapidly growing mass usually in association with constitutional symptoms. Primary extranodal disease is highly suggestive of aggressive subtypes of NHL, with DLBCL being the most common histology. Ki67 is a cellular proliferation marker expressed as percentage of cells positively stained, in our case this was elevated confirming rapid cell division. Due to absence of constitutional symptoms, a sarcoma was high in our differential diagnosis, but this was ruled out after biopsy results. Motor deficits on his right arm were associated to nerve impingement due to right chest wall mass with right pectoral muscle involvement. After initial treatment with IV steroids, motor deficits improved. Treatment was started with pola-R-CHP with improvement of symptoms. Pola-R-CHP showed in the phase III POLARIX trial a progression-free survival benefit and lower risk of disease progression, relapse and death over R-CHOP (rituximab, cyclophosphamide, doxorubicin, vincristine and prednisone) in patients with previously untreated DLBCL with the greatest benefit seen on >60-year-old males. We aim to raise awareness regarding the importance of recognizing uncommon presentations of NHL as early diagnosis and treatment can improve patient prognosis.

**Poster No.:** V-46
**Title:** Resistant Hyperthyroidism to Radioactive Iodine Therapy
**Authors:** Valerie Maldonado, MD; Gerardo Resto Santos, MD; Sharon Vélez Maymi, MD

**Abstract:**
Hyperthyroidism is a thyroid disease with multiple etiologies. Diagnosis is based upon a thyroid function test that reveals suppressed thyroid stimulating hormone (TSH) and elevated thyroxine (T4) and triiodothyronine (T3). Management consists of thionamide, radioiodine ablation or surgey. Radioactive Iodine (RAI) is an indication for recurrent hyperthyroidism after medical treatment, unable to tolerate thioamide or thyroidectomy. Single dose of radioactive material is commonly sufficient for achieving an euthyroid or hypothyroid state in 75% of patients that received therapy. A 30 years old female patient with hyperthyroidism previously treated with methimazole, that was discontinued due to intolerance after developing swelling of face and ictericia. The patient referred to having increased sweating, anxiety, tremor, bad temper, palpitations, intolerance to heat and shortness of breath. Thyroid U/S with homogenous echotexture and bilateral thyroid nodules TIRADS 2. Fine needle biopsy results was benign. Thyroid uptake scan reveals a diffusely enlarged thyroid gland, with overall increased tracer trapping capacity relative to salivary gland and background, diffuse toxic goiter. TSH: 0.005, T4: 7.7 . Patient diagnosed with hyperthyroidism and started on propranolol for symptomatic control. First RAI therapy 2/24/21 with an oral dose of 12.2 mCi of NA 131 in a form of capsule. One month after therapy, TSH continued suppressed and T4 elevated with persistent hyperthyroidism symptoms such as insomnia, tachycardia and weight loss. Due to these findings, a second RAI therapy was performed on 6/25/23 with a dose of 20mCi. TSH remained suppressed, TSH: 0.005, free t4: 1.55, T3: 5.56. Third dose of 22mCi was given on 10 /01/ 23 and finally fourth dose of 16mCi on 7/7/23, for a total of 71mCi. After the fourth dose, free T4: 1.67 and TSH: 48.6. Patient began showing hypothyroidism symptomatology and was started on synthroid 50 mcg PO. This case portrays a rare case of resistance of symptomatic hyperthyroidism to multiple doses of high dose RAI that has not been studied previously since it has been seen previously in thyroid cancer but not in hyperthyroidism.

**Poster No.:** V-47
**Title:** Unusual Dermatomyositis Debut with Neutrophilic Dermatosis Sweet-like!
**Authors:** Elizabeth Pérez Román, MD; Yatzel Fuentes Rosa, MD; Kevin Vargas Feliciano, MD; Rogelio Mercado-Seda, MD; Karla Vélez Rivera, MD

**Abstract:**
Case of an 82-year-old female patient with a past medical history of hypertension, hypothyroidism, diabetes, dyslipidemia, Alzheimer's disease, and bedridden for the past two months after a right hip hemiarthroplasty is brought to our Institution due to having an erythematous rash of two months of evolution. Rash started as small erythematous macules around different areas of her body (back, hands, arms, torso, breast, inner thighs) that later on grew to erythematous patches with central clearing and vesicles that would tear with pressure. The patient had been treated with oral antibiotics and antifungal medications without resolution of the rash. Due to advanced age presentation and skin findings, vasculitis was the top diagnosis. The patient was started on a course of high dose steroids, empiric IV antibiotics, and the patient was consulted for skin biopsy. Immunologic panel was sent for analysis. During hospitalization, skin improvement was immediately noted after initiation of high dose steroids. The patient,Äôs skin condition improved and was discharged home with high dose oral steroids to be continued for 4-6 weeks and then tapered down. Skin biopsy revealed subepidermal acantholysis, epidermal and superficial perivascular neutrophilic infiltrate. Immunologic panel showed negative ANA, <1:20 c-ANCA Ab, <0.2 PR3 Ab, <1:20 atypical p-ANCA, <1:20 p-ANCA Ab, <0.2 myeloperoxidase Ab, <0.2 JO-1 Ab, moderately positive Mi-2 Ab, <0.2 SS-A/Ro Ab, <0.2 SS-B/La Ab, <0.2 Sm (Smith) Ab, < 0.2 RNP Ab, <0.2 Scl-70 Ab, <1 dsDNA Ab, 0.8 histone Ab, <20.0 mitochondrial M2 Ab, negative striated muscle Ab, <9 thyroid peroxidase Ab, 2.6 anti-parietal cell Ab, 145 complement C3, 41 complement C4. With the findings, there is high suspicion of dermatomyositis debuting after external stressor (patient,Äôs fall and right hip hemiarthroplasty) with Sweet-like dermatosis. The patient is currently being followed at our clinic for tapering of steroids, monitoring neutrophilic dermatosis, and possible muscle biopsy to confirm diagnosis. This case shows the importance of proper treatment for neutrophilic dermatosis with high dose steroids regardless of patient’s age or known auto-immune conditions. The educational relevance of this case is to monitor resolution of neutrophilic dermatosis with high dose steroids as systemic immunologic cause can be determined. Furthermore, taking into consideration recent stressors that may have induced a systemic auto-immune condition to debut at an out of range age.

**Poster No.:** V-48
**Title:** A Large Pericardial Cyst: A Unique Presentation of Atypical Chest Pain
**Authors:** Kimberly Pagán, MD; Vicente Covas Rosario, MD; Christian Camacho Ramírez, MD; Luis Acevedo Soto, MD; Karla Vélez Rivera, MD

**Abstract:**
Pericardial cyst is a rare variant of benign mediastinal mass that is generally diagnosed incidentally. The incidence of pericardial cyst is of 1 in 100,000 patients. Seventy percent of these lesions arise in the cardio phrenic angle. Asymptomatic lesions are treated conservatively. However, less than twenty- five percent of patients have symptomatic presentation requiring surgical evaluation and intervention. This case involves a 57-year- old female who presents to the emergency department of our institution after experiencing worsening dyspnea on exertion with associated chest pain and palpitations. During emergency department evaluation, electrocardiogram and cardiac enzymes resulted unremarkable. Chest radiography reported the presence of a large 8.0 x 6.5 cm right lower lobe mass- like opacity. Computed tomography of the chest with intravenous contrast was performed to further evaluate mediastinal mass, which confirmed to be a large simple cyst localized in the right pleuro- pericardium. Due to clinical presentation, compression of the pulmonary hilum was highly suspected, for which surgical excision of the cyst was performed by right thoracotomy. Histopathology resulted in benign mesothelial cells, confirming the diagnosis. As primary care physicians, it is important to always consider pericardial pathologies as differential diagnosis in patients presenting with atypical chest pain. As in this patient, multidisciplinary evaluation was cornerstone in the successful management of such anatomically rare presentation.

**Poster No.:** V-49
**Title:** A Perfect Storm for Cerebrovascular Accidents: Elevated Factor VIII Activity and Patient Foramen Ovale
**Authors:** Wilfredo Pedreira-García, MD; José J. Irizarry-García, MD; Raúl Ríos De Choudens, MD; William Cáceres, MD; Carlos Cortés, MD

**Abstract:**
*Introduction:* Thrombophilia is a condition where there is an excessive coagulation response, caused by various factors like reduced blood flow, structural changes in blood vessels, and alterations in blood composition. Risk factors for venous thrombosis include trauma, surgery, immobilization, malignancy, and others. Genetic factors like factor V Leiden, Prothrombin 20210A, and deficiencies in antithrombin, protein C, and protein S can also lead to inherited risks for thrombosis. High levels of antiphospholipid antibodies and hyperhomocysteinemia are also linked to venous thrombosis. Recent studies have found a link between increased factor VIII activity and arterial thrombosis in coronary heart disease and stroke. A persistent elevation of factor VIII above 150% increases the risk of venous thrombosis by more than fivefold, although the exact mechanism remains unclear. The precise annual incidence of deep vein thrombosis (DVT) or strokes in individuals with increased factor VIII activity is currently unknown. In this case report, we present the case of a young male with recurrent cerebral vascular accidents (CVA) who was found to have elevated factor VIII activity and a patent foramen ovale (PFO). *Case Description:* Case of a 43- year-old male with a history of ischemic CVA requiring TPA, DVT while on long flight requiring 6 months of apixaban, hyperlipidemia, diabetes mellitus, and hypertension. Patient started to present with right sided facial weakness associated with nausea and vomiting. No history in his family of deep vein thrombosis or strokes. Prior CVA and DVT,Äôs were treated without further follow up. Cancer screenings were up to date. CT head without acute intracranial pathology. In view of his history and new symptoms, he was admitted to ward for further management. Carotid duplex without pathology. Telemetry without arrhythmias. MRI confirmed small acute infarcts in the left precentral gyrus. Echocardiography with patent foramen ovale by bubble study. Due to age, hypercoagulable workup ordered, resulted with normal coagulation panel (INR 0.9, PT 12, PTT 27). Noted increased Factor VIII activity 197% (60-150%). Antithrombin III activity, Protein C, Activated protein C ratio, Homocysteine, within normal limits. B2 glycoprotein and anticardiolipin panel (IgG, IgM, IgA, and cardiolipin Ab) without antibodies detected. 21 days of dual antiplatelet therapy was recommended with then monotherapy. Symptoms self-resolved. Patient deferred closure of PFO. *Discussion:* It's important to thoroughly investigate DVTs and recurrent strokes in young individuals, as isolated episodes should not be ignored. A high level of suspicion and extensive hypercoagulable state workup is necessary to prevent complications such as strokes, pulmonary embolisms, and heart attacks. In this particular case, the patient not only had a hypercoagulable state but also a PFO, which made them more prone to shunt thrombi formation directly to the brain. Therefore, the patient required both anticoagulation or antiplatelet therapy with PFO closure, highlighting the importance of extensive follow-up to determine the mechanism of stroke. This case serves as a reminder that strokes and DVTs in young individuals are not always straightforward, and require careful consideration and management.

**Poster No.:** V-50
**Title:** Epinephrine Induce Diabetes Ketoacidosis
**Authors:** Evelyn Morales Quiñones, MD; Marli Almonte MD

**Abstract:**
*Introduction:* Epinephrine induce diabetic ketoacidosis (DKA) is a diagnosis of exclusion that only two cases have been reported in the United States. Patient with any type of allergy can be at increased risk for anaphylaxis and shock that requires the use of epinephrine. The proposed mechanism for epinephrine induced DKA is via induction of glycolysis and lipolysis. Activation of these processes leads to free fatty acid release, which serves as precursor for ketone body formation and suppression of insulin, resulting in DKA. Patients with uncontrolled diabetes mellitus are even at greater risk of this complication. *Case Presentation:* This is the case of a 77-year-old male patient with medical history of arterial hypertension, major depressive disorder and benzodiazepine abuser who was recently incarcerated 3 days ago, presented to the emergency department because he was found on his cell on hypoactive state and with involuntary movement. Vital sign were unremarkable. Dextro was taken upon arrival and it was 96mg/dL. Upon physical examination glasgow coma scale (GCS) was 6/15 and patient was immediately intubated for airway protection and admitted to the Intensive Care Unit. Complete blood count was unremarkable. Basic metabolic panel noted for euglycemia (115mg/dL), high anion gap metabolic acidosis (lactic acid 13mg/dL), mild hypokalemia (3.1mmol/L), stable renal function (1.17mg/dL) and creatinine phosphokinase (279 u/L). Electrocardiogram was remarkable for bradycardia of 40bpm. Chest X Rays was consistent with aspiration pneumonia. Patient was started on Zosyn 3.375 g Intravenous (IV) every 6 hours with IV normal saline at 80ml/hr. On day 2, patient was hypothermic (32.1ÀöC) with bradycardia of 38 bpm. Atropine was administered without improvement for which benzopine withdrawal was suspected as the etiology for the patient,Äôs presentation. Labwork noted for resolution of metabolic acidosis and hemoglobin A1c of 5.8%. An epinephrine infusion was started due to patient,Äôs sustained bradycardia. On day 3, dextro was 442mg/dL. Labwork was noted for hyperglycemia (491mg/dL) with high anion gap metabolic acidosis (anion gap 20, pH 7.18 and CO2 15.5), osmolality 309, and lactate increased to 58mg/dL. Patient was diagnosed with diabetic ketoacidosis (DKA). The epinephrine infusion was discontinued, thereafter hyperglycemia state resolved without insulin administration. Patient had resolution of DKA, making the diagnosis of epinephrine induced DKA more likely. Subsequently patient was extubated, completed treatment for aspiration pneumonia and diagnosis of benzopine withdrawal was confirmed. *Discussion:* Only two cases of epinephrine induced DKA had been reported in the past, both on patients with known history of diabetes mellitus. This is the only case of epinephrine-induced ketoacidosis in a non-diabetic patient. Any patient with recent use of epinephrine is at risk of this complication. Awareness of epinephrine induced DKA in patients with and without diabetic mellitus conditions is imperative as it can be lethal if it’s not promptly recognized

**Poster No.:** V-51
**Title:** Molecular profiling: Genomic guided therapy for lung adenocarcinoma
**Authors:** Héctor Nieves, MD; Vanessa Vando, MD; William Rodríguez Cintrón, MD; José Torres Palacios, MD

**Abstract:**
Lung cancer is the leading cause of death among people with malignancies, accounting for 25% of all cancer fatalities. The overall 5-year survival rate is about 18.6% lower than most cancers, having an improvement since 2013 which was about 16%. Early diagnosis can have a higher survival rate. Unfortunately, it is not always the case and once diagnosed it can already be metastasized. The five-year survival rate for metastatic non-small cell lung cancer (NSCLC) is 6%. Cancer metastasis consists of a sequential series of events, and mesenchymal-epithelial transition (MET) exon 14 skipping mutations and amplification are recognized as critical events for metastasis of carcinomas. This are found in 3-4% of people with NSCLC. Medical advances have identified new ways to treat this event. We present a case of a metastatic NSCLC with MET exon 14 skipping mutation associated with poor prognosis who received Capmatinib and achieved disease stability. Patient is an 83-year-old male with medical history of hypertension and diabetes mellitus type 2, who presented with four days of progressive shortness of breath even at rest. Upon arrival to the hospital he was found hemodynamically unstable, being endotracheally intubated and placed on mechanical ventilation. Physical examination showed bilateral crackles on lung auscultation. Chest CT showed a moderately large pericardial effusion with compression of cardiac chambers measuring, a right small pleural effusion and a large irregular solid heterogenous right apical paramediastinal lung mass of 7.6cm x 4.8cm x 6.7cm, with multiple bilateral solid nodules. Pericardiocentesis was done and was non-diagnostic for malignancy. PET-CT showed hypermetabolic lung mass, mediastinal lymphadenopathy, bilateral pulmonary nodules and pericardial lesions consistent with metastatic disease. Pleural fluid was deemed small for drainage. Patient was stabilized and eventually underwent endobronchial ultrasound bronchoscopy (EBUS) with biopsy of mediastinal station 4R and brushing of right upper lobe positive for lung adenocarcinoma. Immunostains were positive Napsin A and TTF-1 positive, and immunohistochemistry with more than 90% expression of PD-L1 of tumor cells. Genomic testing showed a MET mutation reason why patient benefitted and was started on Capmatinib. PET-CT three months after starting therapy was normal with no FDG lesions identified. When compared to previous PET-CT the multiple hypermetabolic lesions were not seen and no lymphadenopathy was present indicating complete response to treatment.

This case is an example of a positive outcome with new diagnosis and treatment modalities for malignancies. The MET pathway is associated with many cancers, and in NSCLC is associated with a poor prognosis. Most recently Capmatinib, a selective inhibitor of the MET receptor, has shown promise due to its efficacy as monotherapy for MET dysregulated NSCLC. With our case we aim to highlight the importance of genetic testing to guide specific therapy in NSCLC as it can significantly improve patient prognosis and morbidity. Additionally, this supports the need of broad molecular profiling before therapy decision making. In our case it is too soon to tell the 5-year prognosis of this patient, but outcome looks promising.

**Poster No.:** V-52
**Title:** A Unique Presentation of Cardiac Tamponade in a Middle-Aged Man with concomitant MCTD
**Authors:** Kimberly Pagán, MD; Luis Custodio Rodríguez, MD; Yatzel Fuentes Rosa, MD; Milaris Sánchez Cordero, MD; Jorge Soto Rivera, Jorge, MD

**Abstract:**
Cardiac involvement is a common presentation with previously diagnosed systemic inflammatory diseases. Mixed connective tissue disease (MCTD) is a generalized connective tissue disorder defined by the presence of anti- U1 ribonuclease antibodies associated with clinical findings of systemic lupus erythematosus, systemic sclerosis, rheumatoid arthritis and polymyositis. Cardiac disease accounts for twenty percent mortality in patients with MCTD. Common manifestations include acute pericarditis and asymptomatic pericardial effusions, which are diagnosed incidentally. Yet, cardiac tamponade is a rare and not statistically documented presentation. This case involves a 56- year- old male with no past medical history who presented to the emergency department of our institution after presenting with shortness of breath for two days of evolution. Associated symptoms include physical fatigue and low-grade fever which were interfering with daily life activities. Hypotension, tachycardia, the presence of jugular venous distension, distant heart sounds and tachypnea requiring oxygen supplementation were key findings upon initial evaluation. Electrocardiogram was remarkable for sinus tachycardia and low voltage. Chest radiography demonstrated the presence of a ‚Äúwater bottle heart‚Äù. Due to patients wells score for PE and clinical findings, pulmonary embolism and cardiac tamponade were suspected. Elevated d- dimer levels and chest CTA confirmed the diagnosis of pulmonary embolism and the presence of a large pericardial effusion measuring 21.6 x 17.6 x 16.8 cm. Interventional Cardiology was consulted and pericardiocentesis yield 1550 mL of pericardial fluid. Post procedure, symptoms resolved and hemodynamic stability was achieved. Serologic workup for coagulopathies and immunologic pathologies was ordered. ANA test resulted positive and elevated RNP antibodies reporting 2.3 AI (reference range 0.0 -0.9 AI) supported our diagnosis for mixed connective tissue disease. Nevertheless, workup for SLE was inconclusive due to the requirement of full dose anticoagulative therapy with heparin derivatives. This rare and acute presentation of cardiac tamponade in a patient with an undiagnosed rheumatologic disorder is to raise awareness of the variety of cardiovascular presentations that may be displayed. As primary care physicians, it is cornerstone to be the resource of an adequate transition of care and decrease cardiovascular mortality in patients with systemic inflammatory diseases.

**Poster No.:** V-53
**Title:** The Rogue Invader: A Tale of a Walk In Community-Acquired Fulminant Clostridium difficile Infection
**Authors:** Gabriel Pérez, MD; Enrique Leal, MD; Jorge B. Barletta Farias MD; Juan C. Santiago-González, MD

**Abstract:**
*Introduction*: *Clostridiodes difficile* infection (CDI) accounts for 10-25% of nosocomial antibiotic-associated diarrhea cases. Although typically linked to healthcare settings, community-acquired CDI (CA-CDI) has been increasingly recognized and remains fairly uncommon. Fulminant CDI is a severe manifestation characterized by rapid deterioration, hemodynamic instability, and high mortality rates. We present a case highlighting the challenges in managing the fulminant CA-CDI complicated by pancolitis. *Case Description:* A 73-year-old female with type 2 diabetes mellitus and hypertension presented to the emergency department complaining of lower abdominal pain and non-bloody, watery diarrhea. The patient reported at least six episodes per day of diarrhea, along with weakness, nausea, and poor oral intake. Physical examination revealed diffuse abdominal tenderness without peritoneal signs. A computed tomography scan of the abdomen revealed pancolitis with significant wall thickening, suggesting inflammatory colitis. Laboratory findings revealed a serum creatinine level >1.5 mg/dL, metabolic acidosis, white blood cell of 55,000/uL, and a positive *C. difficile* toxin assay that supported the diagnosis. The patient was promptly started on broad-spectrum initially with doxycycline with cefepime and promptly strated on oral vancomycin, metronidazole due to suspected *C. difficile* before result came back positive. In less than 18 hours, despite aggressive medical management, the patient's condition rapidly deteriorated. Hemodynamic instability necessitated triple vasopressor support and steroids. Emergent surgical intervention was planned in light of the severity of the colitis; however, hemodynamic instability precluded transfer to the operating room. Despite all efforts and aggressive supportive care, the patient succumbed to the fulminant colitis caused by a community-acquired *C. difficile*. *Discussion*: Fulminant CDI is a life-threatening condition associated with significant morbidity and a mortality rate of up to 34.7%. The development of fulminant colitis can occur rapidly and is characterized by severe inflammation and necrosis of the colonic mucosa. Remarkably, up to 26% of cases are unrelated to antibiotic use or recent hospitalization. Early clinical suspicion is essential in community-based patients even without recent hospitalization or antibiotics. In order to improve tpatient outcomes, it is crucial to start the appropriate therapy together with the prompt participation of the surgical service.

**Poster No.:** V-54

**Title:** When Infection Leaves its Mark: Spontaneous Renal Hematoma following Acute Pyelonephritis: A Case Report

**Authors:** Maria Cristina Pérez Mitchell, MD; N. Zayas-Schulze, M.D; A. Franjul-Sánchez, M.D; M. Santiago-Nuñez, MD, MPH

**Abstract:**

Spontaneous renal hematoma is a rare and potentially life-threatening complication of urinary tract infections (UTIs) that occurs in the absence of trauma or recent urological instrumentation. The diagnostic puzzle it poses necessitates reliance on more than clinical findings alone; serial CT scanning stands as the key to unlock its confirmation. The course of treatment navigates the contours of the patient's overall health, offering conservative approaches as a potential avenue, while occasionally steering toward drainage or even the prospect of nephrectomy. Prompt recognition and appropriate management are essential to mitigate the potential risks and complications associated with this condition. Delay in diagnosis should be avoided since it is the major factor of worse prognosis. A 44-year-old woman with poorly controlled diabetes presented to the emergency department with urinary frequency, dysuria, polydipsia, diffuse abdominal pain, and hyperglycemia. Physical examination revealed severe dehydration and clinical signs suggestive of pyelonephritis. Pelvic exam, remarkable for a vulvovaginal infection. Dextrose levels were elevated but ketoacidosis and hyperosmolar emergencies were ruled out. Laboratory tests showed leukocytosis, pyuria, and elevated inflammatory markers. Abdominal CT demonstrated severe swelling of the right kidney with changes consistent with extensive pyelonephritis. The patient was admitted to the intensive care unit due to septic shock and managed with intravenous antibiotics and supportive care. A gram-negative bacteremia with Klebsiella pneumonia was identified, and the patient's condition improved with appropriate antibiotic treatment. However, on the fourth day of treatment, the patient experienced a sudden 2 g/dL drop in hemoglobin levels without any apparent acute bleeding source. An abdominal CT scan, when compared to the prior study, revealed a prominent right-sided perinephric hematoma extending to the pararenal compartment. Despite the absence of recent instrumentation or trauma, the ongoing infectious process associated with acute pyelonephritis was considered as the potential cause of the spontaneous renal hematoma. Spontaneous renal hematoma is an uncommon but potentially life-threatening complication of UTIs, often posing diagnostic challenges. This case highlights the importance of considering this rare presentation in patients with pyelonephritis who experience unexplained drops in hemoglobin levels. Timely recognition and intervention are crucial to prevent serious complications associated with renal hematoma, which can lead to significant morbidity and mortality. Healthcare providers should maintain a high level of vigilance for such rare complications to ensure prompt and effective treatment.

**Poster No.:** V-55
**Title:** Bilateral Xanthogranulomatous Pyelonephritis: Prevention is the Name of the Renal Game
**Authors:** María Pestana-Rodríguez, MD; Noel Torres, MD; Gretchen Ríos, MD; Luis Vilanova, MD; Adrián Chico, MD; Nicole Rassi, MD

**Abstract:**
*Introduction*: Xanthogranulomatous pyelonephritis (XGP) is a rare, chronic, destructive granulomatous inflammation of the renal parenchyma in association with long-term urinary tract obstruction and infection. The incidence varies from 0.6% to 1% of all cases of renal infections. Although, in most patients, a unilateral kidney is involved, bilateral involvement is rare, and its incidence has not been established. Urine XGP is characterized by lipid-laden foamy macrophages. It exhibits similarities with true renal neoplasms in terms of its radiographic appearance and its ability to involve adjacent structures or organs. CT findings include a staghorn calculus with contraction of the renal pelvis, multiple rounded hypoechoic foci in the kidney, enlargement of the kidney, and perinephric inflammation or abscesses. The arrangement of hypoechoic foci around the contracted renal pelvis is described as the bear paw sign and is considered characteristic of XGP. *Case Presentation:* A 35-year-old immunocompetent female patient with previous medical history of recurrent urinary tract infections presented to the ED due to gross hematuria and flank pain for one month. The patient has had recurrent urinary tract infections four times per year since five years ago that usually resolved with a seven-day course of Ciprofloxacin. Physical examination was remarkable for mild diffuse abdominal tenderness, moderate suprapubic tenderness, and bilateral costovertebral angle tenderness more prominent on the left side. Laboratory tests showed leukocytosis, microcytic anemia, and acute kidney injury of intrinsic etiology due to prolonged obstruction. Differential diagnosis included clear cell renal cell carcinoma (RCC), papillary RCC, sarcomatoid RCC, leiomyosarcoma, malakoplakia, and megalocytic interstitial nephritis. Moreover, urine cultures were positive for multi drug sensitive Escherichia coli. Abdominopelvic CT scan without contrast showed bilateral obstructive staghorn calculi with the associated enlargement of the kidneys, indicating a "bear-paw" configuration, suggestive of bilateral xanthogranulomatous pyelonephritis. Patient completed IV antibiotic therapy with Ceftriaxone 1 gm daily for 14 days and had bilateral nephrostomies placed to bypass obstruction. After treatment, gross hematuria and flank pain resolved, and the patient's renal function improved to baseline. Patient was discharged home with oral nitrofurantoin as prophylaxis and followed-up with Urology service for evaluation of surgical management. *Discussion:* XPN is characterized by inflammation, which may occur as a result of a defect in macrophage processing of bacteria. In the case of XPN, complicating renal transplantation, renal ischemia, lymphatic blockade and immunosuppression may also be important factors. Xanthogranulomatous pyelonephritis is a preventable complication due to chronic destructive granulomatous inflammation of the renal parenchyma. This case highlights the important role primary care doctors should play in preventing chronic conditions like Xanthogranulomatous pyelonephritis and the importance of providing appropriate therapy when dealing with chronic urinary tract infections and its complications. There is few data regarding bilateral XGP cases since most of them are unilateral and are associated with virtually complete destruction of the kidney, many requiring partial or total nephrectomy or percutaneous drainage. Therefore, this case shows a rare presentation of bilateral XPN involvement with reversal of kidney injury after proper therapy.

**Poster No.:** V-56

**Title:** Rapidly Growing Retropharyngeal Well-Differentiated Liposarcoma: A Diagnostic Challenge Resolved by MDM2 FISH Analysis

**Authors:** Tatiana Pimentel-Soler, MD; Ana L. Melero-Pardo, MD; Pedro Rullán-Mari, MD; Gustavo A. Melero-Gigante, MD

**Abstract:**

*Introduction*: Liposarcomas are rare malignant tumors of adipocytic origin, and their occurrence in the retropharyngeal space is exceedingly rare. We present a case of a well-differentiated liposarcoma in the retropharyngeal region, discussing the diagnostic challenges, management strategies, and the importance of MDM2 FISH analysis in confirming the diagnosis. *Case Presentation:* A 81-year-old male with complaints of mild dysphagia presented with a large retropharyngeal mass characterized by rapid growth on serial CT imaging, prompting concern for malignancy. Physical examination revealed a 7 x 6 cm soft tissue mass in the left neck with tracheal deviation to the right, slight fullness in the right paratracheal area, and pharyngeal compression. Flexible laryngoscopy demonstrated medial displacement of the left lateral pharynx, extrinsic compression, obstruction of the lateral pharyngo-epiglottic fold, pyriform sinus, and a check valve effect against the epiglottis. A percutaneous neck mass biopsy revealed well-differentiated adipocytes with atypical nuclear features. Lipoblasts were not identified, but the nuclear atypia raised concerns for atypical lipomatous tumors or well-differentiated liposarcoma. MDM2 FISH analysis confirmed MDM2 gene amplification. *Discussion*: Retropharyngeal liposarcomas are extremely rare and often challenging to diagnose due to their uncommon location and variable radiographic appearances. These tumors can be mistaken for benign lipomas or other soft tissue neoplasms. In our case, the rapid growth on serial CT imaging and the characteristic smooth anterior bowing and displacement of the retropharyngeal wall raised suspicion for malignancy. The final diagnosis was established through MDM2 FISH analysis, a critical tool for distinguishing liposarcomas from benign lipomatous lesions. Surgical intervention is the primary treatment for retropharyngeal liposarcomas. In this case, due to tumor size and extension, complete resection was performed via an open approach allowing for preservation of nearby anatomical structures. Surgical pathology confirmed a well-differentiated liposarcoma measuring 17 cm in greatest dimension, extending into the retropharyngeal space, and focally involving the resection margins. Regional lymph nodes were negative for tumor invasion, resulting in a pathologic stage of pT3, pN0. The patient's symptoms resolved, with no evidence of recurrence. *Conclusion*: Retropharyngeal liposarcomas are rare entities that can present with atypical clinical and radiographic features, making their diagnosis challenging. MDM2 FISH analysis is a valuable diagnostic tool, allowing for the accurate differentiation of liposarcomas from benign lipomatous lesions. Early diagnosis and surgical resection are crucial for achieving optimal outcomes in these cases. This case highlights the importance of a multidisciplinary approach involving radiologists, pathologists, and surgeons to effectively manage retropharyngeal liposarcomas and achieve favorable patient outcomes.

**Poster No.:** V-57
**Title:** An atypical case of Mantle Cell Lymphoma hidden as a cecal mass
**Authors:** Leonardo Ramírez Botana, MD; Jeremy Martínez Toledo, MD. Francisco J. Vázquez García, MD

**Abstract:**
Mantle cell lymphoma (MCL), a type of B-cell non-Hodgkin‚Äôs lymphoma, is a rare and aggressive disease with a poor prognosis due to its advanced presentation at diagnosis. In uncommon cases, MCL presents as a single mass. Primary gastrointestinal lymphomas account for 1‚Äì4% of all GI malignancies, with few reports of primary mantle cell lymphoma presenting as a single colonic mass with sudden onset of active bright rectal bleeding as the presenting finding. Correct diagnosis is imperative because MCL has fast progression and early chemotherapeutic intervention results in improved patient outcome. This is a case of 87-year-old male, with PMH of Hypertension presented at emergency room due to sudden onset of loss of conscious and active bright rectal bleeding. Days prior to presentation, he started having generalized weakness and the patient was admitted with a lower gastrointestinal bleeding. He also reports night sweats, loss of appetite resulting in a 32-pound weight loss over the past few months. On physical exam, had skin and conjunctival pallor. Vitals revealed orthostatic hypotension. Laboratory indicated anemia with a hemoglobin of 7.3 g/dL, decreased from his baseline of 15.9 g/dL one year prior, an acute kidney injury with a creatinine level of 1.7 mg/dL, potassium level of 3.2 mmol/L and metabolic acidosis. Due to his acute and massive lower gastrointestinal bleeding he was transfused with 3 units of packed red blood cells. Computed tomography of the abdomen identified colonic diverticulosis, and within the cecum with extension into the appendix there is suggestion of a mass with peri/ileocolonic lymphadenopathy. Esophagogastroduodenoscopy and colonoscopy procedure were performed and histology and immunohistochemistry of biopsied specimen analysis tumor phenotype, with results of CD5 antibody and Pan T cell B cell subset result weakly positive, CD20 antibody, Pan B cell positive, BCL1 antibody, ciclin‚ÄìD1 mantle cell lymphoma positive, BCL 2 follicular and other lymphoma positive, and KAPPA light chains equivocal favor positive. Interpretation of phenotype study consistent with mantle cell lymphoma. MCL carries a poor prognosis. In Non-Hodgkin’s lymphomas, MCL occurs in a variety of sites, with 15 to 30% of patients involving the GI tract. The most common presentation are male patients in their sixties and older, with generalized lymphadenopathy, extranodal involvement, and B symptoms, as our patient presentation. The mass demonstrated by colonoscopy and CT imaging is a rare finding for lymphoma of the GI tract, thus mimicking the most common gastroenterology pathology, adenocarcinoma. A few cases have been reported as MCL presenting as a single mass causing lower gastrointestinal bleeding. General surgery was consulted, but surgical intervention was suspended, and the patient was submitted for oncologic treatment. This case of MCL presenting as colon mass as an unusual lymphoma presentation that clinicians should be aware for diagnose and manage. This helps to keep a differential diagnoses of unusual diseases presentation, unexpected pathology and preventing a possibly unnecessary surgical intervention thus delaying appropriate chemotherapy.

**Poster No.:** V-58
**Title:** A case presentation of relapsing polychondritis in a patient with periorbital edema and hemoptysis.
**Authors:** Kyrsha Ramírez Gorbea, MD; Edwin Plaza-Lamoli, MD; José Soto-Santiago, MD; Rosa Román-Carlo, MD; Milton Carrero-Quiñones, MD

**Abstract:**
Introduction: Relapsing polychondritis is an immune-mediated condition associated with inflammation in cartilaginous tissues, particularly ears, nose, eyes, joints and respiratory tract. Early manifestations often remained unrecognized, as a result, the diagnosis is often made after patients present with clinical findings of cartilage destruction. Case presentation: Our case presents a 73-year-old man with PMHx of CAD, HTN and DM2 who presented to the ER due to right side ear pain and right periorbital edema. Patient reports he was diagnosed with external otitis media by his PCP and was given antibiotic treatment, yet symptoms failed to improve, and patient started with fever and decreased hearing in the affected ear. Patient recalls episodes in the past of conjunctivitis and ear infections. Physical examination was remarkable for right pinna edema and erythema, along with tenderness upon palpation with a diffuse violaceous appearance, right eye with chemosis and proptosis. Patient was admitted for suspected mastoiditis with antibiotic treatment, yet differential diagnosis of relapsing polychondritis and cavernous sinus thrombosis was also suspected, thus further work up was ordered. During admission patient presented with hemoptysis, prompting further evaluation. CT scan of chest with findings of B/L ground glass opacities and infiltrates. Given abundant hemoptysis, flexible bronchoscopy was performed, and pathology results came back positive for inflammatory cells (lymphocytes predominance) along with peribronchiolar fibrosis, therefore diagnosis of relapsing polychondritis was made. Discussion: Relapsing polychondritis is characterized by widespread inflammatory and degenerative lesions, potentially destructive. RPC is a rare disease that may appear among individuals of all races and ages. This disorder primarily affects cartilage in the body, a type of connective tissue found in ears, nose, joints and other parts of the body. Symptoms may vary among individuals and include pain, swelling and tenderness among affected areas. Hearing loss, tinnitus and dizziness may be present. Breathing difficulties due to airway cartilage inflammation and fatigue and general malaise. Diagnosis can be challenging and usually required a comprehensive evaluation, ultimately biopsy of affected areas may be necessary. Treatment aims at reducing inflammation, managing symptoms and preventing complications. Early diagnosis is essential in order to start appropriate treatment to improve outcomes and reduce the risk of cartilage damage. RP is a rare immune disorder that primarily affects cartilage in the body leading to inflammation and a range of symptoms. While it can be a challenging condition to diagnose and manage, advances in medical treatment have improved the outlook for these patients, thus it is importance to seek medical evaluation and guidance.

**Poster No.:** V-59

**Title:** Pseudotumor as a sequela of recurrent complicated urinary tract infections: A case of aggressive xanthogranulomatous pyelonephritis.

**Authors:** Andrea Ramos Vicente, MD; Karimar Amador Martinez, MD; Brian A. Monge Barrios, MD; Camille González Morales, MD

**Abstract:**

*Introduction*: Xanthogranulomatous Pyelonephritis (XPN) is a peculiar and uncommon variant of chronic pyelonephritis with an incidence of 0.6-1% of all renal infections. This condition often occurs secondary to urinary tract obstruction with concomitant infection, commonly by gram-negative organisms. It usually presents in middle-aged women with a history of recurrent urinary tract infections complicated by calculus, most commonly a staghorn calculus, a nidus for infection. XPN is characterized by massive kidney destruction and replacement with granulomatous tissue containing lipid-laden macrophages that may be mistaken for renal cell carcinoma on radiography. *Case description:* Our patient is a 63-year-old female with chronic kidney disease and nephrolithiasis associated with recurrent urinary tract infections for several years. She presented with a painless mass in her right flank of one-month progression. The physical examination was remarkable for a large palpable deformity on her right flank with fluctuation, associated erythema, and tenderness on deep palpation. Laboratories had evidence of leukocytosis with neutrophilic predominance, microcytic anemia, thrombocytosis, and elevated inflammatory parameters. Urinalysis showed the presence of pyuria and bacteriuria but no identifiable organism on the urine culture. Computed tomography had evidence of severe right kidney atrophy with extensive renal replacement lipomatosis with a contiguous large pararenal abscess of 12.6 x 12.9 x 11.5 cm with extraperitoneal extension to the right posterior abdominal wall. The patient received the radiographic diagnosis of xanthogranulomatous pyelonephritis Stage III. She was started on empiric broad-spectrum antibiotics that were later optimized to cefepime for coverage of most pathogenic organisms. The abscess was percutaneously drained, and culture was obtained, but yielded no growth. After three weeks of IV antibiotics, she was discharged home with close follow-up by infectious diseases and urology services for surgical planning of nephrectomy. *Discussion*: Xanthogranulomatous pyelonephritis is a chronic destructive granulomatous process of renal parenchyma that is difficult to diagnose due to the various presentations and extent. Further complicating XPN diagnosis is its similar appearance on imaging to a renal cell carcinoma; however, clinical signs of infection, leukocytosis, and acute/subacute onset indicate an underlying inflammatory rather than a malignant process. XPN may be fatal if not treated promptly. Although, in most cases, there is an identifiable organism in urine culture, commonly gram-negative bacteria, the culture may be sterile in 25%, as in our patient. The sterile culture may have been secondary to the recurrent use of antibiotics in the outpatient setting. Our patient's risk factors include her history of recurrent nephrolithiasis episodes. Nevertheless, no renal stone was identified. The XPN was complicated by a substantial retroperitoneal abdominal wall abscess, not typical of other case reports of XPN. The question of whether earlier surgical intervention involving partial or complete nephrectomy would yield enhanced overall patient outcomes remains uncertain. Timely diagnosis plays a pivotal role, as a protracted period of preoperative antibiotic treatment contributes positively to patient outcomes. This case illustrates the importance of having a high index of suspicion as both diagnosis and treatment are often delayed due to its rarity and unfamiliarity, ultimately impacting the prognosis.

**Poster No.:** V-60
**Title:** When Eyes Speak Louder: An Isolated Severe Thyroid Eye Disease
**Authors:** Gretchen Ríos Grant, MD; Noel Torres, MD; Angel A. Miró-González, MD; Gabriel Guardiola, MD; Dwayne García, MD; Luis Madera, MD; Nicole Rassi Stella, MD

**Abstract:**
*Introduction*: Thyroid eye disease (TED) is a rare, complex, progressive autoimmune disease of the retro-ocular tissues. In rare cases, TED can exhibit a range of signs and symptoms, from visual disability to significant facial disfiguration and blindness. In addition, it is associated with a hyperthyroid state, specifically Graves' Disease. The incidence of TED is 2.9 per 100,000 males; it most commonly presents in older males with a history of smoking. We present a compelling case where severe thyroid eye disease was the only initial manifestation of Graves' disease in a male patient. *Case Presentation:* A 67-year-old male patient with history of hypertension, dyslipidemia, cerebrovascular accident, and former smoker presented to the emergency department (ED) due to progressive eye irritation associated with retro-orbital pain worsened by eye movement of two months of evolution. A week prior, he had also experienced an episode of bilateral transient vision loss that self-resolved. During outpatient evaluation, he had been diagnosed and treated for severe bilateral conjunctivitis with chemosis without improvement. At the ED, the physical examination was remarkable for bilateral conjunctival erythema, periorbital edema, chemosis, proptosis, and decreased multidirectional eye movement limited by pain. There was no evidence of goiter, thyroid nodules, or lymphadenopathy. Detailed examination revealed bilateral exophthalmos, lid retraction, and prominent extraocular muscle belly for which clinical suspicion for TED without other classic hyperthyroidism findings arose. The laboratory workup was remarkable for a low TSH, elevated free T4 and positive thyroid stimulating immunoglobulin, supporting the diagnosis of Graves' Disease. Subsequent orbital CT scan revealed bilateral moderate to severe proptosis and symmetric enlargement of the inferior, medial and superior extraocular muscles. Given radiological, clinical, and biochemical findings correlated with severe TED and compressive optic neuropathy, the patient was started on methylprednisolone 1000 mg IV daily, methimazole, and atenolol. Later, he underwent emergent medial and floor wall orbital decompression by ophthalmology and ENT service. The patient improved significantly and was discharged with close interdisciplinary follow-up. *Discussion*: Thyroid eye disease is frequently mistaken with other common eye disorders, such as conjunctivitis, given that it can manifest with isolated ophthalmic symptoms. Similar clinical findings between ophthalmic conditions can lead healthcare providers unfamiliar with these variations to perform unnecessary studies and delay proper treatment. TED management includes a short course of high-dose pulse steroids along with methimazole and atenolol, which interfere with thyroid hormone biosynthesis and decrease peripheral conversion from T4 to T3, respectively. Our case intends to stress the importance of TED being the debuting manifestation of Graves' Disease and how to differentiate between other common ophthalmic diagnoses through a good history taking and physical exam.

**Poster No.:** V-61
**Title:** Unmasking the Silent Culprit: An overlooked cause of hypertension
**Authors:** Nicole Rivera-Bobe, MD; Tiana Aponte, MD; Marlian Montesinos, MD; Diego Ortiz-Mendiguren, MD; Janet Colón-Castellano, MD

**Abstract:**
Pheochromocytoma is a catecholamine-secreting tumor and a rare cause of hypertension. It typically manifests with the classic triad of symptoms including episodic headache, sweating, and tachycardia. We present a case of a 40-year-old African American male with history of hypertension who sought medical attention due to palpitations, episodic headaches, and profuse sweating. He had no family history of cancer or other relevant cardiovascular or metabolic disorders. Denied fever, chills, cough, night sweats, weight loss, or changes in medications. Over the past couple of months, his symptoms had worsened, significantly impacting his daily life. His primary care physician promptly referred him to the ED for further evaluation. At the ED, the patient was diagnosed with refractory hypertension and elevated heart rate that did not improve with isotonic fluid hydration. Sinus tachycardia was observed on the ECG, which was managed with rate control therapy. Initial laboratory results revealed a normal white blood cell count but elevated creatinine levels, indicating chronic kidney disease stage 3. Unfortunately, there were no recent baseline laboratory values for comparison. An abdominopelvic CT scan, initially requested for kidney evaluation, was requested, and unexpectedly detected a 9 cm (about 3.54 in) mass in the upper part of the right kidney. Given the high suspicion of a catecholamine-secreting tumor, metabolic services were consulted. A GA68 DOTATATE PET/CT scan showed a Somatostatin receptor avid lesion on the right adrenal gland. Biochemical testing was requested and came back with metanephrine levels exceeding 1000 mcg/24 hours, which confirmed the diagnosis of Phreochromocytoma. Once the diagnosis was confirmed, the patient underwent resection of the mass by the service of General Surgery with resolved his episodes. Our case highlights the critical importance of recognizing the classic triad of symptoms associated with pheochromocytoma and the necessity of promptly evaluating young patients with refractory hypertension to prevent complications such as chronic kidney disease.

**Poster No.:** V-62
**Title:** More than iron deficiency: An atypical case of GAVE in CKD as the cause of persistent anemia
**Authors:** Jesús Rivera-Rosa, MD; Reyshley Ramos-Márquez, MD; José Martin-Ortíz, MD

**Abstract:**
Gastric antral vascular ectasia (GAVE) is a condition characterized by dilated blood vessels in the stomach mucosa. While GAVE usually occur in patients age 70 and older and in the setting of portal hypertension due to cirrhosis and systemic sclerosis, there are known cases associating it with chronic kidney disease (CKD). Evidence suggest that GAVE can occur in up to 30% of individuals with CKD. The exact cause of GAVE in CKD is not fully understood, but it is thought to be related to uremia and portal hypertension. In severe cases, GAVE can lead to significant blood loss and anemia. We present a case of a 73y/o male with T2DM, CKD stage IV, and OSA that presented to the ER for evaluation of recurrent anemia without visible blood loss, abdominal pain, nausea, vomiting or other GI complaints. Patient arrived with stable vital signs without tachycardia nor hypotension. Laboratories were remarkable for normocytic normochromic anemia with Hgb 6.8 g/dL in steady decline from baseline 10g/dL in six months. Patient was initially admitted with impression of symptomatic anemia secondary to renal disease for which he received transfusion of blood products, administration of iron and erythropoiesis-stimulating agents (ESA). However, the patient continued with decline in hemoglobin levels requiring transfusion of 7 PRBC. Due to this and with a Mentzer index 31 suggestive of iron deficiency anemia, gastroenterology service was consulted and a diagnostic colonoscopy was performed which was remarkable only for one small sessile polyp. Esophagogastroduodenoscopy (EGD) was subsequently performed and showed longitudinal rows of flat, reddish stripes radiating from the pylorus into the antrum, consistent with nodular antral GAVE and hemostasis achieved with band ligation. He was discharged but shortly returned to the ER with recurrence of symptoms, for which EGD was repeated showing nodular antral GAVE once again and hemostasis achieved with argon plasma coagulation (APC). The patient was shortly discharged with pantoprazole 40mg twice daily with control in symptoms and without recurrence of symptomatic anemia after last endoscopic therapy. Upper gastrointestinal bleeding due to GAVE should be suspected in CKD patients with anemia not responsive to iron supplementation or ESA despite no gross evidence of bleeding. This diagnosis could be missed, leading to delay in treatment of a potential reversible cause of anemia.

**Poster No.:** V-63
**Title:** Acute Decompensated Congestive Heart Failure Due to Endless Loop Tachycardia in a Patient with Dual Chamber Pacemaker
**Authors:** Glorimar Rodríguez-Gutiérrez, MD; María R. Cochran-Pérez, MD

**Abstract:**
*Case Description:* A 76-year-old female presented to the emergency room (ER) complaining of shortness of breath and chest tightness for 4 days. She has a history of atrial fibrillation with sick sinus syndrome, for which a dual chamber pacemaker was placed 5 years ago. Electrocardiogram (ECG) performed in the ER was suggestive of rapidly paced ventricular rhythm 136 bpm that improved with diltiazem drip. Patient was admitted with the diagnosis of acute decompensated congestive heart failure (ADCHF). Echocardiogram showed mildly reduced ejection fraction (49%) without wall motion abnormalities or valvulopathy. Chest X ray demonstrated bilateral pleural effusions with increased perihilar markings. During the admission patient received Guideline-directed medical therapy for ADCHF with minimal improvement of symptoms. On day 2, patient presented with atrial fibrillation above 140 bpm accompanied by chest pain and shortness of breath. The patient was given trial of intravenous metoprolol, diltiazem, and amiodarone with no effect. The pacemaker was disabled with a magnet resulting in termination of tachycardia and improving symptoms of ADCHF. Further device interrogation suggested atrial fibrillation which appeared to be present for 14 days with average ventricular rate over 171 bpm, then the defibrillator program was optimized. The patient was transferred to the intensive care unit for further monitoring and treatment. When stable, she was discharged with an adequate heart rate and followed up with the electrophysiologist outpatient. *Discussion:* Endless loop tachycardia, also known as pacemaker mediated tachycardia or pacemaker induced ventricular tachycardia, is described as the reentrant tachycardia most commonly seen on dual-chamber pacemakers where one impulse is coming from the pacemaker and the other from an ectopic impulse on the ventricle creating a reentrant loop. This kind of tachyarrhythmia is rarely seen in single chamber pacemakers, making this a rare case. The pacemaker interrogation reported two weeks of paroxysmal atrial fibrillation with a heart rate up to 171 bpm, causing her ADCHF. This patient presented with clinical signs and symptoms of ADCHF and was initially treated as such. Interrogation of pacemaker was imperative to assert diagnosis of endless loop tachycardia. This led to accurate etiology treatment which resulted in successful management of patient's symptoms of ADCHF. In this case, the pacemaker was pacing properly according to the ECGs performed and there was no reason to believe it was malfunctioning. In contrast, when the patient started to present with uncontrolled tachycardia, having shortness of breath and pressure-like chest pain suggesting that the patient had ADCHF and a possibility that the pacemaker was malfunctioning. The interrogation also reported that the application that prevents the reentrant circuit from forming was turned off. It is important to interrogate every pacemaker of patients with symptoms and tachycardias as soon is admitted to the hospital to discard the possibility of pacemaker malfunction like endless loop tachycardia which requires urgent evaluation by electrophysiologist.

**Poster No.:** V-64
**Title:** Mycoplasma pneumonia infection and pulmonary embolism as an unusual complication. Case of a 25-year-old female with shortness of breath and marked respiratory deterioration.
**Authors:** Angélica Ludena De Freitas, MD; Juan Pérez Olmos, MD; Alejandra Medina, MD

**Abstract:**
Most Mycoplasma pneumonia infections are often self-limited in young adults. The need for hospitalization and the mortality rate is low and the majority of patient experience only upper respiratory tract infection symptoms. Pulmonary Embolism (PE) is a rare and life-threatening complication that if not diagnosed in a timely manner promptly could cause imminent death. It is proposed that the antibodies created in response to Mycoplasma infection form immune complexes leading to endothelial damage. The initiation of an inflammatory response with cytokines over vascular wall of pulmonary arteries, like interleukin-8 and tumor necrosis factor alpha, might be the cause of subsequent release of pro-coagulants. We present the case of a 25-year-old female with past medical history of obesity class II, who presented to our institution due to worsening of fever, shortness of breath and dry cough of three days of evolution. Ten days prior, the patient had returned from Colombia with symptoms of an upper respiratory infection. Other people traveling in her group also got sick, presenting with generalized weakness, headache, vomiting and non-bloody diarrhea. She referred a twenty hour lay-over during her travel back home that made her symptoms worse . Upon physical examination, patient presented with tachypnea of 30 breaths per minute (bpm), sinus tachycardia of 130 beats per minute (bpm), 87% oxygen saturation at room air and 96% on a 3 liter nasal cannula. Lungs auscultation revealed decreased breath sounds over right lung field and laboratories were remarkable for normal white blood count, and a reactive IGM mycoplasma pneumonia antibody. Chest computed tomography reported streaky atelectasis and patchy areas of collapse consolidation in lungs bilaterally as well as mild atelectasis. The patient was admitted due to Mycoplasma Pneumonia and hypoxemia for immediate treatment with antibiotic therapy, intravenous fluids (IVF), oxygen supplementation and specialist consultation. By sepsis criteria, normal saline IVF were increased. During that night she presented marked respiratory distress, sinus tachycardia of 120 bpm, tachypnea of 41 bpm, and bilateral crackles up to mid lung field bilaterally. Furosemide was given, obtaining diuresis of 3100 milliliters. The following morning, due to clinical deterioration she was placed on bi-level positive airway pressure ventilation, heparin lock and strict input and output. There was a concern for pulmonary embolism (PE) given that the patient had worsening hypoxia, sinus tachycardia and had not tolerated IVF. A computed tomography angiography described a filling defect in the left main proximal pulmonary artery, with some artifact defect, with enlargement of main pulmonary trunk measuring 2.7cm transversely, and an underlying pulmonary arterial hypertension. Antinuclear antibodies were positive. Due to these findings, the patient was treated with full anticoagulation. Sputum cultures reported pseudomonas aeruginosa infection. The patient completed antibiotics and was finally able to be oxygen free and was discharged home with oral anticoagulants and specialists follow up. The mechanism of thrombosis in patients with Mycoplasma pneumoniae infection includes numerous factors. Early and timely therapy may improve the prognosis and help save patients' lives. We raise awareness to the medical community about this fatal but treatable complication.

**Poster No.:** V-65
**Title:** Adult-Onset CNS Involvement in Acute Lymphoblastic Leukemia Leading to Rapid Chloroma-Associated Demise
**Authors:** Christian Torrech Santos, MD; Maria Pérez Mitchell, MD; Ricardo Fernández González, MD

**Abstract:**
Central Nervous System (CNS) involvement in Acute Lymphoblastic Leukemia (ALL) at the time of diagnosis occurs in less than 10% of cases, with relapses occurring in 30-40% of cases. According to the literature, CNS involvement at the time of diagnosis in adults is associated with a very poor prognosis. Mortality in isolated CNS recurrence is estimated to be around 80% but can be significantly reduced with appropriate prophylaxis and treatment. In this case, we present an instance of ALL diagnosed with CNS symptoms as presenting signs in an adult patient. The case involves a 33-year-old female patient with a medical history of B-Cell Acute Lymphoblastic Leukemia (B-ALL) and generalized anxiety disorder. She was brought to the Emergency Department due to seizures characterized by a sudden loss of consciousness, bilateral upper and lower extremities tonic seizures, right-sided neck torticollis, and unresponsiveness to external stimuli. These seizures lasted for four minutes, and there was another episode lasting one minute, during which she experienced a loss of urinary sphincter control. She had recently been diagnosed with B-ALL after presenting with new-onset seizures, and a lumbar puncture revealed the presence of blast cells on flow cytometry. Initially, she received treatment with intrathecal chemotherapy with an adequate initial response, but she continued to experience relapses of CNS symptoms. The patient was subsequently admitted and further developed generalized tonic seizures that did not respond to medication, consistent with status epilepticus. Endotracheal intubation was performed to secure the airway. The initial brain MRI reported diffuse supratentorial and infratentorial leptomeningeal thickening and enhancement without edema or mass effect. The electroencephalogram reported findings strongly suggesting irritative, ictal activity arising from the right posterior areas. The patient continued to be in the Intensive Care Unit under mechanical ventilation. However, her neurological condition continued to deteriorate. A repeat brain MRI conducted 10 days later showed a significant increase in the size of a new solid enhancing component on the undersurface of the left anterior temporal lobe, suggestive of a developing solid manifestation of leukemia described as "myeloid sarcoma or chloroma." This manifestation caused significant vasogenic edema and mass effect, resulting in subsequent rightward midline shift and infratentorial herniation in the subsequent days. Unfortunately, the rapid progression and deterioration of the disease ultimately led to the patient's demise. Chloromas are aggregates of myeloid cells, typically found in the pediatric population with ALL, where the disease is more commonly observed, and they are extremely rare in adults. Focusing our attention on these rare but rapidly manifesting complications of relapse in patients with ALL presents a significant challenge. Various treatment modalities and prophylactic measures continue to emerge, leading to improvements in survival odds. As the prevalence of cancer and malignancies continues to grow, it becomes increasingly important to be familiar with these complications, as prompt recognition and action can result in significantly different outcomes.

**Poster No.:** V-66
**Title:** Posterior reversible encephalopathy syndrome, a rare condition presented after a post partum eclampsia.
**Authors:** Leonardo Ramírez Botana, MD; Francisco Vázquez García, MD; Jeremi Martínez Toledo, MD; Axel Nuñez Rivera, MD; José Vázquez García, MD

**Abstract:**
Posterior reversible encephalopathy syndrome (PRES) is a clinical and radiological entity characterized by the acute or subacute onset of headache, altered level of consciousness, visual alterations, seizures, nausea, and vomiting; it also causes neuroimaging alterations, which are generalized, reversible, and predominantly posterior. Brain magnetic resonance imaging (MRI) is essential for diagnosis as it identifies the presence of edema surrounding the white matter bilaterally, mainly in the parietal and occipital lobes. This is a case of a 32-year-old female with PMHx of gastritis is consulted by obstetrics and gynecology services due to a hypertensive crisis. The patient was admitted due to intrauterine growth restriction, oligohydramnios, low fetal weight, and proteinuria. She had a stillbirth but has remained hospitalized due to high blood pressure value and she started to have sudden severe headache, described as pressure like, located posterior side of the head, blurry vision, subjective fever, and diaphoresis. Other neurological examinations were normal, and no prior history of seizures or stroke. She was conscious with no other complaints. After these episodes, she started having altered consciousness and status epilepticus that was controlled with magnesium sulfate. Her blood pressure was 195/110 mmHg in the maternity ward. Laboratory indicated Hemoglobin 10.6 g/dl and platelet 141 x 10^3/uL. Liver enzymes and coagulation profile were between normal value. Urine red blood cell 3539/ul, high value, large urine blood, urine random protein 1266 mg/dl, high value, and total urine protein in 24 hours 17272 mg/dl, very high value. Brain MRI was performed and mild scattered areas of T2 hyperintense signal abnormality involving the subcortical white matter most pronounced in the right occipital lobe. Posterior reversible encephalopathy (PRES) is the primary consideration. Blood pressure was controlled using labetalol, losartan, and hydrochlorothiazide. The specific incidence of PRES is unknown, and no known cases has been reported in Puerto Rico, but with increasing knowledge of its possibility as a differential in various clinical scenarios combined with more widespread use of MRI, more cases are being reported worldwide. In our patient, we theorized that elevated blood pressure in the eclampsia disease was the major factor predisposing to the development of PRES. The pathophysiology of PRES is not well understood but appears to be related to loss of cerebral autoregulation and endothelial dysfunction. PRES is an uncommon non-inflammatory vasculopathy, which is not always as reversible as its name implies. As there is no specific treatment of PRES, the management goal is to control the precipitating factors. Our case highlights the need for a high sign of suspicion, timely diagnosis, and management of risk factors to avoid permanent neurological sequelae. The patient was discharged on day 8 and referred to the neurologist outpatient consultation. Antihypertensive were suspended after 8 weeks of treatment.

**Poster No.:** V-67

**Title:** Invasive high grade B cell lymphoma manifesting as painful hepatosplenomegaly and elevated liver transaminases

**Authors:** Jesús Rivera-Rosa, MD; Rosa Marrero-Fernández, MD

**Abstract:**

B cell lymphoma is unlikely to come to our minds when a patient complains of abdominal pain and weakness. However, when local invasion to adjacent organs occurs, this disease can manifest with painful hepatosplenomegaly, elevated liver transaminases and symptomatic anemia. In such cases, arriving to the correct diagnosis and treatment can be a challenge. We present the case of a 58 year-old male with history of hypothyroidism who presented to the ER due to 2 months of diffuse abdominal pain. This worsened when laying on his right side and was associated with fatigue, early satiety, and unintentional weight loss of about 30 pounds. He denied melena/hematochezia, hematuria, cough, fever, chills, new medications, past blood transfusions, substance use, IVDU, or recent travels. Workup at the moment of evaluation included esophagogastroduodenoscopy with non-erosive gastritis, negative for malignancy and H. pylori. Given elevated liver transaminases, he was referred to a hepatologist. MRCP showed hepatosplenomegaly but no biliary pathology. Results for viral hepatitis, malignancy markers and autoantibodies (AMA, microsomal antibodies) were normal or negative. Ferritin was elevated >2,500 and ANA positive with 1:80 dilution. He was also evaluated by a Hema-Onco on where autoimmune disease was considered. Upon evaluation at ER, initial vital signs were remarkable for sinus tachycardia, physical exam revealed an acutely ill and tired appearing male with pale conjunctiva, anicteric eyes, and palpable and tender hepatosplenomegaly., negative digital rectal exam. Lab values without leukocytosis however with elevated peripheral blasts (77%), normocytic-normochromic anemia with hgb 8.5g/dL with elevated RDW, thrombocytopenia, elevated liver transaminases with cholestatic pattern and hyperbilirubinemia, elevated LDH and inflammatory markers. CT scan with contrast was relevant for multiple subcentimeter mesenteric lymph nodes as well as hepatosplenomegaly. Infiltrative liver disease was suspected with possible bone marrow involvement for which Hematology-Oncology service was consulted. Extensive workup including bone marrow biopsy, flow cytometry, and PET-CT showed high grade B cell lymphoma on leukemic phase with suggestive germinal center cell origin (positive CD10, negative for c-myc, bcl2, bcl6), with liver and bone marrow involvement. HTLV, EBV and CMV were ruled out as cause of lymphoma. The patient was successfully treated with R-CHOP and intrathecal chemotherapy and is currently with improved condition. Despite being an unusual presentation, the diagnosis of lymphoma should be considered in a patient showing constitutional symptoms, painful hepatosplenomegaly, and cytopenias. These findings should prompt a bone marrow biopsy to enable a timely diagnosis and treatment plan.

**Poster No.:** V-68
**Title:** Yeast misfortune: Peritoneal fluid infection with Cyberlindnera jadinii
**Authors:** Mariana Rolán Otero, MD; Yatzel Fuentes-Rosa, MD; Luis Acevedo-Soto, MD; Rey Aponte, MD; Isaac Solano, MD; Karla Vélez-Rivera, MD

**Abstract:**
Non-Albicans Candida infections are emerging and as clinicians we need to be aware of these arising infections to avoid delay in diagnosis and complications that could be fatal. Dialysis patients have a higher risk of infections due to their chronic immunosuppressed state, making them more vulnerable to opportunistic infections as from fungal species. Early diagnosis and treatment will be the key successful management as it was seen in our case. A 71 year old male patient with past medical history of Hypertension, Diabetes Mellitus Type 2, ESRD on Peritoneal Dialysis since 3 years ago, Obstructive Sleep Apnea on CPAP and Hypothyroidism came to the emergency department due to peritoneal dialysis catheter infection. Patient referred he noticed change in color and fibrin like material on dialysate fluid. Dialysis catheter had to be exchanged 2 months prior due to malfunction and patient had abdominal procedures in the past due to same reasons. Peritoneal fluid was sent for evaluation and cultures and resulted positive for yeasts. Started on empiric therapy with Caspofungin until susceptibility was available. Culture final report was positive for Cyberlindnera jadinii which is the teleomorph of Candida utilis. Due to catheter related infection, decision of peritoneal catheter removal was done which resulted in transition of ESRD management to Hemodialysis. Patient was successfully treated with therapy with Fluconazole. Adequate identification of signs of infection in immunosuppressed patients, such as dialysis patients, is of utmost importance for improving the morbidity and mortality. Delay in these may lead to peritonitis, fungemia and other fatal complications. There are limited reports in the literature of Cyberlindnera jadinii causing infections and mostly was seen on severe immunocompromised patients. With this case we want to bring awareness of these uncommon Candida infections to prompt early diagnosis and adequate managemen.

**Poster No.:** V-69
**Title:** An hemorrhagic stroke in a 30-year-old? Not so fast
**Authors:** Sherley M. Rosa MD; Angélica Vázquez MD; Tiffany Sebastian MD; Jennifer Ramírez MD; Samille Olivera MD; María Pérez MD; Daniel Font, MD; Hiram Maldonado MD

**Abstract:**
The incidence of intracerebral hemorrhage and subdural hemorrhage in leukemic patients is about 15% and 6%, respectively. Even more rarely, herpes simplex virus encephalitis can hide as an intracerebral hemorrhage. Herpes simplex encephalitis without therapy has a mortality rate of 70%. A 30-year-old female with a history of acute lymphocytic leukemia diagnosed in 2020 without antiviral prophylaxis visits the emergency room after a 7-day period of disorientation. The patient was oriented in all aspects but had brief episodes of disorientation while being interviewed. Symptoms included unquantified fever, diarrhea, generalized weakness, and intermittent left leg hemiparesis. A head CT was ordered, which revealed an acute hemorrhagic stroke in the right frontotemporal lobe. Severe leukopenia and thrombocytopenia were reported. The patient was admitted to the intensive care unit, and a lumbar puncture was performed due to persistent altered mental status and fever episodes. Cerebrospinal fluid pressure was 42 cm H2O (18-20 cm H20). There was evidence of xanthochromia, leukocytosis, and hypoglycemia. The patient's condition abruptly declines with altered mental status and persistent left hemiparesis. An MRI revealed bilateral temporal hyperintense edema, swelling, and superimpose hemorrhage. Herpes encephalitis was diagnosed based on the clinical picture, imaging findings, CSF data, and Herpes simplex virus type 2 IgG antibody positive. Acyclovir 800 mg IV every 8 hours was started and continued for the next 21 days. Head CT revealed rebleeding from the initial lesion. newly formed acute intraparenchymal hemorrhage with perilesional edema in the right parietal and bilateral temporal lobes was observed. Intraventricular breakthrough hemorrhage in both lateral ventricles, as well as a midline shifting to the left. The patient was intubated due to her severely altered mental state and diminished level of consciousness. Unfortunately, the patient passed away during her hospitalization. Early diagnosis and treatment with Acyclovir at 10 mg/kg every eight hours for 14 days in immunocompetent patients and 21 days in immunocompromised patients is the current first-line therapy. HSV-2 accounts for less than 10% of cases of herpes simplex encephalitis, but it is more prevalent in immunocompromised patients. This case highlights the challenges of detecting and treating HSV encephalitis when it masquerades as a hemorrhagic stroke. Early suspicion of HSV encephalitis and prompt empirical treatment is critical to their survival.

**Poster No.:** V-70
**Title:** A severe case of Norwegian scabies in a female patient with acquired immunodeficiency syndrome.
**Authors:** Jorge Sánchez Romero, MD; Johanna Ortega García, MD; Naimy Rodríguez Flores, MD; Rafael Avilés Encarnación, MD; Leosbel Hurtado Cabrera, MD, Yail Morales, MD; Sherleyann Baez, MD

**Abstract:**
Human scabies, caused by Sarcoptes scabiei var. hominis, is a highly contagious infestation affecting people across social strata and races worldwide. Despite its widespread impact, its precise prevalence remains unclear. Notably, it earned the moniker "Norwegian scabies" after its description in Norway, where it afflicted patients with leprosy and severe immunosuppression. This report delves into the rare manifestation of scabies known as Crusted Scabies (CS), or Norwegian scabies, a condition characterized by an overwhelming infestation of Sarcoptes scabiei mites. While classical scabies is recognized as a neglected disease by the World Health Organization, CS poses a unique challenge, primarily afflicting immunosuppressed individuals, such as those with HIV/AIDS, Down syndrome, or extended corticosteroid use. A 38-year-old female patient presented to the Emergency Room (ER) with severe generalized pruritus for the past three months. Initially, when the symptoms began, the patient visited the nearest ER, complaining of dry areas predominantly affecting the elbows and the right inguinal area. The lesions were non-pruritic, which complicated the initial diagnostic suspicion. The patient received a diagnosis of eczema and was prescribed a corticosteroid cream, which did not resolve the lesions, on the contrary, exacerbated the skin irritation. The patient states that over the last two months, despite topical treatment, the lesions have grown larger and spread to the trunk, hands, and legs. This rash was accompanied by unbearable pruritus that worsened at night and mild bleeding, which she associates with prolonged scratching. Upon arrival at the ER, vital signs indicated a low-grade fever of 38.2C. The physical examination revealed an extensive generalized rash characterized by excoriated erythematous papules with a warty appearance, particularly on bony prominences involving the neck, trunk, and extremities. The patient mentioned that she has been homeless for the past four years, denies intravenous drug and alcohol use, but smokes half a pack of cigarettes daily. She has had multiple male partners for the past four years with inconsistent use of protection. The patient agreed to hospitalization, and blood samples and cultures were taken. Empiric antibiotics were administered, and systemic antihistamines provided almost immediate relief of the pruritus. The patient was started on topical permethrin lotion 1%, which moderately improved the rash in the first week. Preliminary blood culture at 48 hours revealed coagulase-negative staphylococcus species. The fourth-generation HIV antigen-antibody test resulted positive with an HIV viral load of 10 million and a CD4 count of 15 cells/mm3. This case involves a patient with multiple risk factors (homelessness, promiscuity, and inappropriate use of topical corticosteroids) that predispose the host to infestation by Sarcoptes scabiei. The diagnosis of crusted scabies can be established through a skin biopsy, dermoscopy, and direct microscopic visualization using a scraping technique. Evidence has demonstrated an association between the inappropriate use of topical corticosteroids and localized decreased cell-mediated immune responses, which can promote the spread and proliferation of the mite in this type of scabies. Following medical advice, our patient applied topical corticosteroids for two months to alleviate pruritus, inadvertently exacerbating the mite infestation.

**Poster No.:** V-71

**Title:** Case Report: Non-healing buccal mucosa lesion: Atypical presentation of metastatic colon adenocarcinoma

**Authors:** Milaris Sánchez-Cordero, MD; Yue-Sai Jao-Ayala, MD; Pablo J. López-López, MD; Yatzel-Fuentes, MD; Santa Merle-Ramírez, MD.

**Abstract:**

Advanced colorectal cancer is the third leading cause of cancer-related deaths in the United States. Metastatic spread of colorectal cancer initiates by the lymphatic route. Most common metastatic site is the liver, followed by the lung and peritoneum. There have been a few reported cases of metastasis to other sites of the body. Metastasis to the oral cavity comprises 1-3% of oral region malignancies, mostly with poor prognosis. The lack of clinical studies and observations, makes the diagnosis and treatment of oral metastasis difficult. In this report, we present a case of oral metastasis resulting from a primary colorectal adenocarcinoma. A 68 y/o woman with metastatic colorectal cancer to lung and liver, on 5-fluorouracil/leucovorin chemotherapy, presented with an indurated lesion of the buccal mucosa. The lesion has been evolving over the mouth, for the past month. Mucositis secondary to chemotherapy was suspected. The patient was treated with clindamycin without improvement. She was sent to the hospital for culture and directed antibiotic therapy. Physical examination was pertinent for a raised left buccal mucosa pustule with yellowish secretion, measuring 3x3 cm, associated with severe pain that resulted in trismus. Lab works were pertinent for elevated ESR and CRP. A head CT scan confirmed an air-fluid level of the left cheek with adjacent inflammation causing mass effect and bone erosion. Patient underwent extensive debridement of the lesion. She was started in broad spectrum antibiotics, which were further de-escalated as per culture results; S. mutans, S. parasanguinis and C. albicans, sensitive to levofloxacin and fluconazole. After clinical improvement, the patient was discharged home to continue the same oral therapy for 21 days. At follow up visit, it was noted that the lesion persisted. She was sent to an OTO-HNS for excisional biopsy. Results revealed adenocarcinoma with KRAS mutation, similar to the surgical specimen of the ascending colon. Therefore, the lesion was diagnosed as a metastatic adenocarcinoma of the colon. The patient was given 3 cycles of local chemoradiation therapy with 5-FU/leucovorin and bevacizumab that elicited no response and the succumbed to the disease after 6 weeks. Although rare, metastatic tumors should be included in the differential diagnosis of intraoral indurated oft tissue ulcers. Early detection off the type of malignancy and institution of appropriate treatment is of paramount importance in outcome.

**Poster No.:** V-72
**Title:** Extreme hypernatremia in nursing home resident
**Authors:** Deborah Santos Sierra, MD

**Abstract:**
Sodium is a dominantly extracellular cation essential to maintain intravascular volume. To achieve and maintain water homeostasis, the human body concentrates the urine through the actions of antidiuretic hormone (ADH) and increases fluid intake through the thirst response. When hypernatremia ensues, these mechanisms mediate or prevent further increases in sodium levels. On occasions, these mechanisms may be impaired leading to hypernatremia. The degree of hypernatremia can be classified as mild (146-149 mmol/L), moderate (150-169 mmol/L), severe (169-189 mmol/L), and extreme (>190 mmol/L), depending on the sodium levels. We describe a case of an 89-year-old woman nursing home resident with a known medical history of dementia, hypertension, hypothyroidism, and bedridden who presented to the Emergency Department after a two-day history of poor appetite and poor oral intake, hypoactivity, and generalized weakness. The patient had no recent changes in her medication regimen. Physical examination was remarkable for an acutely and chronically ill patient with hypoactivity, dry oral mucosa, decreased skin turgor, and delayed capillary refill. Laboratories showed severe hypovolemic hypernatremia (sodium 187 mmol/L, osmolality 436 mmol/L) and hyperchloremia (145 mmol/L), pre-renal azotemia (blood urea nitrogen 201 mg/dL, creatinine 2.01 mg/dL) and elevated blood glucose (136 mg/dL). Sodium levels and renal function from a hospitalization one month prior were normal. Head computed tomography (CT) was remarkable only for chronic senescent brain changes. Urinalysis with granular casts and mild proteinuria; and arterial blood gasses consistent with respiratory acidosis and concomitant metabolic alkalosis, likely contraction alkalosis. The patient was initially started on intravenous normal saline 0.9% for volume expansion, which improved volume status and slightly worsened hypernatremia (188 mmol/L). She was then switched to intravenous normal saline 0.45% and D5W, alongside tap water through a nasogastric tube. Although improvement in renal function was noted, hypernatremia became extreme at 191 mmol/L. Suspicion of diabetes insipidus arose and the patient was given one dose of subcutaneous desmopressin. 24 hours later, sodium levels decreased 13 mmol/L, and there was further improvement of renal function. To avoid overcorrection of sodium, the patient was administered a second and final dose of subcutaneous desmopressin. 24 hours later, sodium levels had decreased further by 11 mmol/L, and the patient's neurologic status improved. Sodium levels were corrected from 191 mmol/L to 136 mmol/L over 120 hours. Hypernatremia is a serious and often fatal condition, with mortality levels ranging from 20-60%. Managing hypernatremia is a difficult task. If unknown duration or over 2 days, hypernatremia should be considered chronic and corrected gradually, <0.5 mEq/L per hour or 10-12 mEq/L per day. In this case, we have a patient who sustained extreme hypernatremia for several days, and hypernatremia was corrected at a rate of approximately 0.46 mEq/L per hour. Unfortunately, over 12 hours after the normalization of hypernatremia, the patient was found without a pulse and was declared dead.

**Poster No.:** V-73
**Title:** Anton-Babinski Syndrome: Sight without Vision
**Authors:** Marilee Tiru Vega; Fabiola Feliciano-Bonilla, MD; Gerald Marín-García, MD

**Abstract:**
Anton-Babinski Syndrome or Anton Syndrome, is an extremely rare neurologic condition that presents as cortical blindness and visual agnosia. It is characterized by anosognosia, or denial of vision loss, and concomitant, unintentional, confabulation consisting on the patients,Äô belief of being able to see. Because of its unique presentation, a high index of suspicion and a thorough physical examination, along with supporting imaging is warranted for adequate diagnosis and subsequent therapy. We herein describe the case of a patient who suffered from bilateral occipital cerebrovascular accidents and developed acute vision loss with denial of such.

A 79-year-old male patient with medical history of hypertension, diabetes mellitus type II and former smoker visited the ED after experiencing blurry vision and falling from standing height after tripping on his own feet. During physical examination, his pupils were equally round and reactive to light, each measuring 3 mm. No ptosis was present and extraocular movements were intact. Nonetheless, he did not blink to threat and had impaired visual field testing. Sensation and motor function were grossly unaltered. Head CT performed was pertinent for an acute intraparenchymal hemorrhage on the right parieto-occipital lobe, an additional hyperdensity at the left posterior temporal lobe, and encephalomalacia on the left parieto-occipital lobe. Head and neck CTA showed no masses or vascular malformations. Because the patient reported seeing concrete objects that in fact weren,Äôt there and did not blink to threat, in addition to, afero-mentioned imaging findings consisting of bilateral occipital injuries, the diagnosis of Anton Syndrome was made. He was referred to blindness rehabilitation for further therapy and was given aspirin and high-dose atorvastatin for secondary prevention.

Anton Syndrome is a rare phenomenon that should be suspected in patients with overt blindness but claiming ability to see. A thorough physical examination, along with adjunct imaging findings, are of outmost importance, as secondary causes of confabulation specially in elderly patients, such as dementia, delirium and visual hallucinations, may obscure the diagnosis. The pathophysiology involves insults to bilateral occipital lobes, especially the virtual cortices, while sparing the anterior visual pathways. For this reason, visual examination is usually unremarkable with patients having preserved pupillary reflexes and adequate extraocular movements due to their ability to perceive shadows via anterior visual pathways. Nonetheless, cortical areas involved in visual processing and appreciation are affected for which objective spatial recognition is impaired. The underlying etiology of such should be thoroughly assessed in order to adequately tailor management. In this elderly patient with bilateral intracerebral hemorrhage, hypertensive vasculopathy is the most common etiology. Secondary causes of his clinical presentation were disregarded after extensive questioning, multidisciplinary physical examination along with the Neurology service and, most importantly, supportive imaging findings. Differentiating between visual anosognosia and confabulation from dementia and overt confusion in an elderly patient is a challenging task. It is of outmost importance for clinicians to be aware of this syndrome, as its repercussions may lead to erroneous diagnosis and equivocal management.

**Poster No.:** V-74
**Title:** Neurofibromatosis Type 1 double date with Glioblastoma and Pheochromocytoma
**Authors:** Noel Torres, MD; Hillarie Ríos, MD; Natalia Mestres, MD; Cristina Casas, MD; Camille González, MD; Sherley Rosa, MD; Marcel Mesa, MD; Isamuel Santos, MD

**Abstract:**
Neurofibromatosis type 1 (NF1) is a hereditary tumor syndrome affecting 1 in 3500 individuals, caused by mutations in the NF1 gene on chromosome 17q11.2. It increases the risk of various tumors, predominantly benign, including intracranial growths like pilocytic astrocytoma and optic gliomas. While the association between NF1 and glioblastoma is extremely rare, with only four adult cases reported before 2010, the concurrence of glioblastoma and pheochromocytoma in an adult NF1 patient is even rarer. A 61-year-old woman with NF1, previously treated breast cancer, and a family history of NF1, breast cancer, and brain cancer, presented with left-sided weakness, gait issues, that resulted in a fall. Brain MRI revealed a high-grade glioblastoma in the temporal lobe, accompanied by hemorrhagic components, and uncal herniation, for which she was started on Dexamethasone 4mg IV every 6 hours. During the emergency room encounter patient presented with hypertensive urgency for which carvedilol was provided. Minutes after administering the medication patient presented with tachycardia, and systolic blood elevation of more than 20 mmhg compared with the previous reading, as well as anxiety, tremors, and chest pain. On further questioning, patients reported restlessness, agitation, irritability, diffuse headache, disorientation, dizziness, and tremors two weeks prior to the event. Other associated symptoms were decreased appetite, polydipsia, polyuria, insomnia, paresthesia in extremities, and blurry vision for approximately two months. The physical exam was remarkable for tachycardia, palpable thrill, bounding pulses, and tremors in the upper extremities. Multiple neurofibromas covered her body, most prominent on the face, torso, and back were suppurating and bleeding; therefore, lesions were biopsied. Laboratories were remarkable for leukocytosis with neutrophilic predominance, thrombocytosis, and hyperglycemia. Given strong suspicions of adrenal pheochromocytoma, workup was ordered, including metanephrines. Immediate treatment was started to provide alpha blockade. Workup revealed elevated metanephrines and the abdominopelvic CT scan was pertinent for bilateral heterogeneously enhancing adrenal masses in favor of pheochromocytomas. The patient received Doxazosin 8mg every 12 hours for 10 days, and once alpha blockade was achieved, treatment with Propranolol 10mg every 8 hours was provided for beta-blockade for 5 days. The patient underwent a brain mass biopsy, which confirmed High-Grade Glioblastoma WHO Grade IV. Pathology report of skin lesions revealed ulcerated skin with underlying spindle cell lesion with extensive necrosis and bacterial colonization. Findings showed a plexiform neurofibroma, immunohistochemistry remarkable for spindle cells with extensive areas of necrosis, CD34 positive, CD56 negative, Ki67 positive, and S-100 positive. The patient was planned to start chemotherapy and radiation; however, the patient progressed with neurological deterioration, and expired shortly after. Occurrences of NF1 with both glioblastoma and pheochromocytoma are extremely rare, with no prior reports of such cases. Recognizing this combination's potential is crucial, as prompt identification and intervention can mitigate long-term complications. The patient's unfortunate outcome underscores the need to expand our understanding of NF1. Limited data exists on adult glioblastoma cases associated with NF1, necessitating further research. This case highlights the importance of meticulous evaluation for NF1-related clinical features and associated diseases in individuals with glioblastoma and pheochromocytoma.

**Poster No.:** V-75
**Title:** Cardiac Rupture in Takotsubo Cardiomyopathy a Rare and Lethal Complication: A Case Report
**Authors:** Angel Valles Bravo, MD; A. Hernández Reyes, MD; F. Díaz Gomez, MD; P.L. Hurtado Cabrera, MD; R. Lastra, MD; F. García Ricardo, MD

**Abstract:**
*Introduction*: Takotsubo cardiomyopathy is an acquired form of cardiomyopathy that occurs in around 1 to 2 percent of patients suspected to have acute coronary syndrome and is usually seen among postmenopausal women. Generally, with a favorable prognosis, some patients may develop a severe and rare complication as a myocardial wall rupture which often leads to sudden death. *Case description*: Here we present the case of a 70-year-old female with significant past medical history of primary hypertension, atrial fibrillation, and bladder cancer that was presented to the hospital for elective bladder surgery. While waiting for the procedure, the patient began experiencing oppressive-type substernal chest pain. Initial evaluation showed an electrocardiogram with ST elevation in inferior leads and elevated troponin.

She was taken urgently for cardiac catheterization with no evidence of acute obstructive coronary artery disease. However, left ventricular anterior apical akinesia was noted on ventriculogram, consistent with a diagnosis of Takotsubo Cardiomyopathy. Discharge planning started as the patient was in stable clinical condition. Unfortunately, at day 4 of symptoms presentation she developed cardiorespiratory arrest and despite extensive

reanimation efforts, the patient died. A bedside ultrasound showed free wall rupture of the Left Ventricle. *Conclusions*: Cardiac rupture is a rare complication of Takotsubo cardiomyopathy, occurring in less than 1 percent of cases. It is the most severe mechanical complication of Takotsubo cardiomyopathy and has a very high risk of death. The main risk factors for left ventricular perforation include higher concentration of cardiac enzymes, higher GRACE scores, ST elevations shown on electrocardiogram, female gender, and older age.

**Poster No.:** V-76
**Title:** A difficult choice of delaying the amputation of a patient's digit when all the resources have not yet been exhausted
**Authors:** Emily Vázquez Morales, MD; Felipe Soto, MD; Pedro López, MD; Víctor Mendoza, MD; Vanessa Sepúlveda, MD

**Abstract:**
*Introduction*: Hyperbaric chamber therapy provides high oxygen concentration in a pressurized chamber, and it was initially developed for treating decompression sickness. Necrotizing soft tissue infections (NSTI) are severe and can rapidly progress to life-threatening consequences. Different injuries, including insect bites, can usually cause them. Given NSTI's high mortality, effective adjuvant therapies like hyperbaric oxygen (HBO) therapy are urgently needed. HBO has been used to treat various conditions over the years and it has been demonstrated to improve tissue perfusion, angiogenesis, oxygen level in tissues, and inhibits toxins. *Case Presentation:* A 53-year-old male with untreated Hepatitis C and Cirrhosis presented to the Emergency Department after a spider bite to his right hand's third digit, five days prior. There was progressively worsening erythema, swelling, and pain in the area, with impaired right-hand range of motion with associated systemic symptoms. MRI demonstrated a combination of cellulitis, osteomyelitis, and reactive tenosynovitis. Orthopedic service perdormed incision and drainage of the affected area, yielding MRSA on culture. The patient was started on broad-spectrum antibiotic therapy with Vancomycin and due to worsening symptoms, including necrotic tissue formation on physical examination. Infectious Disease service decided to add Meropenem. Despite treatment with antibiotic therapy and local wound care, the necrosis worsened. Therefore, a decision is made to consult hyperbaric oxygen therapy services to avoid amputating the patient's digit. HBO service evaluated the case and recommended a minimum of 15 sessions to prevent further tissue loss and necrosis, improve oxygenation, potentiate antibiotics, and avoid amputation with adjunctive local wound care and IV antibiotic therapy. The patient completed 15 sessions of HBO with appropriate procedure tolerance, no oxygen toxicity, and success in tissue viability and granulation tissue formation. Orthopedic service was re-contacted for a flap of the patient's third digit to perform at an outpatient setting with a plastic surgeon. Additionally, per ID service recommendations, the patient completed eight weeks of antibiotic therapy for osteomyelitis and was discharged home with local wound care and outpatient follow-up with Orthopedic service. *Discussion*: NSTIs can be highly destructive to the skin, subcutaneous tissue, and superficial fascia. Hyperbaric chamber therapy directly affects oxygen free radicals, which can lead to alleviation in inflammation, reduce inflammatory immune cytokines, stimulate wound repair, and treat tissue hypoxemia. There are always some considerations with HBO treatment, including oxygen toxicity, ear and pulmonary barotrauma. Furthermore, it is crucial to adequately evaluate case by case and consider individuals' different clinical pictures and circumstances. The literature has demonstrated that not all patients respond in the same amount of time or sessions applied to NSTI. Our case represents a typical patient who, after conservative treatment with IV antibiotic therapy and the necrotic tissue debridement, was still worsening, considering the amputation of the patient's affected digit a reasonable alternative. In the end, hyperbaric chamber therapy was the last resource, which benefited patients in avoiding amputation, achieving tissue viability, and granulation tissue formation. Considering HBO early in managing a patient can minimize complications affecting a patient's quality of life.

**Poster No.:** V-77
**Title:** An incidental finding leading to the diagnosis of Mycobacterium abscessus in a former smoker with previous infections of Histoplasmosis and Aspergillosis
**Authors:** Ilia Vélez, MD

**Abstract:**
A 67 year-old woman former 10 pack year smoker, HTN, history of histoplasmosis PNA 22 years ago, and history of aspergillosis who lives in Puerto Rico, presents with enlarging incidentally found RML and LUL lingular nodules. The patient visited a specialized cancer center in the year 2022 where a series of images and bronchoscopy with biosy were performed. Body FDG PET/CT which was compared with her previous imaging studies revealed new and increased hypermetabolic nodularity involving the left upper lobe base and unchanged right upper and middle lobe FDG avid nodularity with increased calcification over time, probably infectious/inflammatory. The cultures revealed mycobacterium abscessus identified by MALDI-TOF mass spectrometry, so it was determined the patient should be managed with either linezolid 600mg Qdaily, bedaquiline or omadacycline. IV drug infusion was recommended for 2-4 months to then transition to inhaled amikacin plus two oral drugs aiming for 12 months of culture negativity. This case is significant because it will further contribute to the growing population of patients with Mycobacterium abscessus that cannot be managed with the classical therapy proposed by today,Äôs guidelines. In addition, we are able to recognize clinical findings highly suggestive of malignancy due to increase in metabolic activity, which can also represent an infection that cannot be identified by our standard testing. Cases like this one will provide an explanation as to why tools like matrix-assisted laser desorption/ionization-time of flight mass spectrometry should be available in clinics specializing in chronic respiratory infections.

**Poster No.:** V-78
**Title:** Pseudohyponatremia in a Multiple Myeloma Patient: The Role of Ion-selective Electrode Potentiometry
**Authors:** Nicole Rivera-Bobe, MD; Gabriel Torres-Rivera, MD; Andrés Velázquez, MD; Carlos Cortés-Sánchez, MD

**Abstract:**
Pseudohyponatremia, a relatively uncommon laboratory artifact, arises from imprecise sodium measurement due to interference caused by molecules like proteins or lipids. The precise incidence of pseudohyponatremia remains uncertain, but it appears to be more prevalent among individuals with underlying predisposing conditions such as malignancies and plasma cell dyscrasias. We present a case of a 70-year-old Hispanic female with medical history of Hyperlipidemia, Obesity, and Multiple Myeloma. She was initially admitted to the Hematology/Oncology Ward for chemotherapy treatment. During her stay at the ward, she developed worsening creatinine levels (Cr: 3.08 mg/dL) with mild associated azotemia (BUN:28.4) that increased ~1.5x her baseline, consistent with an AKI stage 1 although no major electrolyte disturbance was noted. At evaluation she was asymptomatic and referred feeling well. Physical exam revealed signs of euvolemia such as intact skin turgor and moist oral mucosa; there was absence of JVD, pulmonary crackles, or lower extremity edema. She also developed marked hyponatremia (Na: 121 mEq/L), which decreased significantly when compared to prior sodium levels (Na:131 mEq/L). A renal U/S was requested but was essentially unremarkable. The patient also presented with high protein concentration over 13g/dL, which may cause artificially lower sodium concentration.The etiology of the AKI was thought to be transient and caused by protein precipitation in the renal tubules, which was expected to improve with treatment of MM. Nephrology services recommended the use of an i-STAT, which utilizes direct iron selective electrodes, which are not susceptible to artifactual lowering of sodium due to hyperproteinemia. The i-STAT result of 137 mEq/L of sodium confirmed that the patient presented with pseudohyponatremia, rather than a true hyponatremia and did not warrant treatment at the moment. Our case highlights the importance of recognizing pseudohyponatremia promptly and the use of ion-selective electrodes to measure true sodium levels in cases where pseudohyponatremia is suspected. Pseudohyponatremia continues to present an enduring challenge for clinical laboratories and leads to unnecessary treatment and correction of otherwise normal sodium levels.

**Poster No.:** V-79
**Title:** An unusual case of DRESS Syndrome: Carbamazepine for the treatment of Post-Herpetic Neuralgia
**Authors:** Alexandra Vélez Martínez, MD; Andrea D. Ramos Vicente, MD; Ambar N. Lugo Merly, MD; Renil Rodríguez Martínez, MD

**Abstract:**
Drug reaction with eosinophilia and systemic symptoms (DRESS) is a rare and potentially life-threatening adverse drug reaction most commonly caused by a delayed hypersensitivity reaction. Clinical manifestations are usually not immediate and may appear 2 to 8 weeks after introducing a triggering drug. It is characterized by an extensive skin rash, lymphadenopathy, eosinophilia, and atypical lymphocytes, with or without organ involvement. Drugs associated with DRESS syndrome include aromatic anti-epileptic agents, antibiotics, allopurinol, and anti-tuberculous agents. We present the case of an 81-year-old female with hypertension and no known allergies admitted to the internal medicine ward with an erythematous rash. The rash started on her shoulders, extending distally, eventually including all extremities. Upon examination, she had a morbilliform rash without vesicles, pruritus, or burning sensation associated with periorbital and perioral swelling. Laboratories showed evidence of eosinophilic leukocytosis up to 23% with atypical lymphocytes. She also had evidence of organ involvement, including nephrotic range proteinuria, acute liver injury, increased troponins, and increased amylase levels. In the preceding five weeks, the patient was prescribed carbamazepine 200 mg for treatment of post-herpetic neuralgia that initially did not respond to gabapentin. Biopsy results showed evidence of spongiotic dermatitis with eosinophils. Dermatology service was consulted, and the patient was subsequently diagnosed with DRESS syndrome with a RegiSCAR score of 5. The patient was started on IV Methylprednisolone for nine days, with subsequent improvement in her skin findings and angioedema. Liver enzymes, kidney function, and eosinophilia improved, and she was discharged on oral prednisone shortly after with further dermatology follow-up in an outpatient setting. Post-herpetic neuralgia is a chronic neuropathic pain in the same dermatome previously affected by a herpes zoster rash. The initial treatment choice should be guided by potential drug interactions and the patient,Äôs comorbidities. Initial therapy typically involves an anticonvulsant like gabapentin or pregabalin. If these prove ineffective, a tricyclic antidepressant may be considered. The use of aromatic antiepileptic medications like carbamazepine is generally reserved as a later option in the treatment sequence, primarily due to side effects. This case illustrates a potential adverse reaction of antiepileptic agents and the importance of fast recognition, discontinuation of the offending drug, and treatment of this rare reaction. Screening for organ involvement and following the course of the disease is important since the patient may continue to deteriorate even after the offending agent has been discontinued. Given the potentially life-threatening effects of this syndrome, including a 5-10% mortality rate, the use of anti-epileptics for the treatment of neuropathic pain should be used with caution and reserved for cases that are unresponsive to first or second-line treatments.

**Poster No.:** V-80
**Title:** Plot Twist: When Clean Coronaries Can Break Your Heart
**Authors:** Gabriel Pérez, MD; Nicole Rassi Stella, MD; William Redondo Menicucci, MD ; Claudia Ramos Méndez, MD ; José López Ventosa, MD

**Abstract:**
*Introduction*: Anomalous origin of the right coronary artery (AORCA) is a rare, up to 0.026% incidence, but potentially life-threatening congenital anomaly that can lead to myocardial ischemia and sudden cardiac death. Mechanisms of ischemia include abnormal slit opening and mechanical compression of artery between the aorta and pulmonary artery during exertion. Previous data from 2006 documented only three cases of AORCA among patients from Puerto Rico, out of thousands of invasive catheterizations performed at main cardiovascular hospitals in the island. This case discusses the uncommon presentation, evaluation, and management of a 66-year-old male with chronic obstructive pulmonary disease (COPD) who after an episode of multifocal atrial tachycardia (MAT) developed anginal chest pain, leading to non-ST elevation myocardial infarction and the incidental discovery of an AORCA. *Case Description:* A 66-year-old male with COPD, type 2 diabetes mellitus, and obstructive sleep apnea was admitted due to epiglottitis. While hospitalized, he experienced a sudden onset of retrosternal oppressive chest pain associated with elevated pulse. An EKG revealed MAT without ST/T changes. Serial cardiac troponin measurements showed a delta, further raising suspicion of cardiac involvement (TIMI 3, GRACE 122). Given the concern for acute coronary syndrome, the patient was started on dual antiplatelet therapy, beta-blockers, anticoagulants, and statins. A left heart catheterization was performed to assess coronary artery anatomy and potential culprit lesions, surprisingly yielding unremarkable results for coronary artery disease (CAD). However, it did unveiled an unexpected finding,Äîa slit AORCA. Interventional cardiologists recommended evaluation for Coronary Artery Bypass Grafting (CABG). A coronary CT angiogram confirmed the anomalous origin with an interarterial course and slit-like caliber at its origin, suggesting an aortic intramural course. This confirmed the diagnosis of a rare anomaly with potentially significant clinical implications, including an increased risk of sudden cardiac death. The patient was advised to continue medical therapy and follow up with the cardiothoracic surgeon for potential surgical intervention. Two months after discharge, patient remained chest pain free with adequate heart rate control (HR 60-65) under beta-blocker therapy. *Discussion*: AORCA is a rare finding, poorly described in Puerto Rico and the general population, yet it is recognized as the second most common cause of sudden cardiac death in young athletes due to ischemia related to increased cardiac demand. Recent guidelines advocate coronary CTA as the gold standard for further assessment of coronary anomalies. Management decisions in such cases require close collaboration between cardiologists and surgeon, with the optimal treatment approach contingent on the specific anatomy and clinical context. This case highlights the importance of recognizing an unexpected finding that can signifincantly impact patient mortality risk, even in the setting of no coronary arterial disease. Even as an uncommon presentation of chest pain, as an internist one must recognize to promptly provide rate control to reduce cardiac demand and refer to cardiothoracic surgeon. In this instance CABG was recommended. It is key to act in a timely manner without overlooking the finding of clean coronaries, since in this setting, they can still break your heart.

## POSTER PRESENTATIONS - RESEARCH

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| R11 | Alexandra Santos | A Fully Automated Multi-Tissue Multi-Sequence Knee Segmentation Pipeline For Studying Soft Tissue And Bony Structures in 3D |

**Poster No.:** R-01
**Title:** Differential Gene Expression of Potential Colorectal Cancer Biomarkers in Hispanic Individuals
**Authors:** Gabriel De Jesús Astacio, MD; Elba V. Caraballo, MD; Hilmaris Centeno-Girona, MD; Camille Zenón-Meléndez, MD; Madeline Martir-Ocasio, MD; Marcia Cruz-Correa, MD, PhD

**Abstract:**
Introduction: Colorectal cancer (CRC) is a leading cause of cancer death among men and women in Puerto Rico and the United States. Most CRC cases (60-70%) are found at advanced stages (III/IV), suggesting limited adherence to available screening methods. Several molecular biomarkers have been identified as discriminatory for CRC (e.g., KRAS, NRAS, MSI), improving CRC management and patient outcomes. This study evaluates the differential expression patterns of DKK3, PKM2, IGFBP-2, and SEPT9 genes between matched CRC tumors and adjacent mucosa samples. Methods: Using a retrospective study design, we examined 112 tissue samples from a population of Hispanic individuals with a pathology-confirmed CRC diagnosis recruited throughout the Puerto Rico Familial Colorectal Cancer Registry (PURIFICAR). We quantified expression levels of target genes by Real Time qPCR normalized with endogenous control GAPDH, using TaqMan Gene Expression Assay in the QuantStudio 3 (Applied Biosystems). Wilcoxon signed-rank test was used to calculate differences between gene expression from tumor and adjacent mucosal tissue samples. Results: DKK3 and IGFBP-2 expression levels were higher among CRC tumor samples. However, expression levels of PKM2 and SEPT9 genes were slightly lower. DKK3 was the only target gene significantly different ($p<0.05$) when comparing overall gene expression between the matched samples. Upon comparison between early and advanced CRC stages, DKK3 expression levels were higher in advanced stages tumor samples when compared to adjacent mucosal tissue samples ($p<0.05$). Conclusion: This study highlights differential expression patterns in the evaluated genes. Further research is needed to assess their potential in improving early tumor detection in Hispanics.

**Poster No.:** R-02
**Title:** Assessment of Virulence Factors in *H. pylori* Positive Gastrointestinal Metaplasia Samples
**Authors:** Paola Jacome Justiniano, MD; Lucía Mattei, MD; Hermán Colberg, MD; Ingrid Montes, PhD; Marcia Cruz Correa, MD, PhD

**Abstract:**
Gastric cancer is the fifth most common cause of cancer and the fourth leading cause of cancer related mortality worldwide. In the United States, it has been estimated that there will be approximately 26,500 new cases of gastric cancer in the year 2023, leading to an estimated 11,130 deaths. The presence of *H. pylori* infection has been demonstrated to be correlated with the development of chronic inflammation in the stomach, which in turn can lead to the development of gastric cancer. The pathogenicity of *H. pylori* has been increasingly linked to its virulence factors VacA and CagA, each of which induces distinct pathways leading to its colonization and disruption of gastric homeostasis. In this study we aimed to assess the presence of these virulence factors in *H. pylori* positive gastrointestinal metaplasia samples from Hispanic patients living in Puerto Rico. A cross-sectional study was carried out using fresh frozen and formalin-fixed paraffin-embedded (FFPE) tissue samples from patients recruited throughout the Puerto Rico Familial Colorectal Cancer Registry (PURIFICAR). Real-time PCR was carried out to determine the presence or absence of *H. pylori* virulence factors, VacAs, VacAm and CagA. A total of 65.2% (15/23) of the samples were VacAs positive, with 26.7% (4/15) of these also being VacAm positive, and a separate 53.3% (8/15) being CagA positive. A total of 17.4% of samples were positive for all three genotypes tested. Increased presence of virulence factors of *H. pylori* was associated with patient sex ($p = 0.031$) and advanced age ($p = 0.0907$). In conclusion, in this study, we validated a methodology for assessing the presence of H. pylori virulence factors in patients infected with *H. pylori*. Further studies of a larger population of Hispanics living in Puerto Rico can help assess the use of this type of genotyping to improve high-risk patients' surveillance, precision treatment, and prevention of antibiotic resistance.

**Poster No.:** R-03
**Title:** Creating a Syngeneic Glioma Model With Loss of DNA Mismatch Repair
**Authors:** Karla Lugo-López, MD; Juan Vásquez, MD; Dheepti Bhatt, MD

**Abstract:**
*Introduction*: Glioblastoma (GBM) is a high-grade, malignant brain tumor that infiltrates surrounding healthy brain tissue. Survival outcomes for patients with GBM remain poor with current surgical and chemoradiation treatments. Temozolomide (TMZ) is the standard chemotherapeutic agent used for GBM. TMZ works by adding a methyl group to DNA resulting in DNA damage that is repaired by O6-Methylguanine-DNA Methyltransferase (MGMT). In cancer cells that have loss of MGMT, the unrepaired methyl adducts result in a mismatch of bases. The mismatch repair (MMR) pathway recognizes the damage and induces cell death via futile cycles of MMR. Tumor cells that have loss-of-function mutations in MMR proteins, such as MLH-1 and MSH-6, develop resistance to TMZ, making the treatment less effective. *Methods*: We used CRISPR/Cas9 to generate a mouse glioma model with knockout of MLH-1 and MSH-6 to allow for the study of treatment response in MMR deficient cells, particularly in mice with an intact immune system. We first validated MMR knockout at the protein level via western blot. We then performed in vitro growth delay assays with TMZ in cells with knockouts of these proteins and compared them with wild-type cells that have an intact MMR pathway. We also tested the in vitro activity of KL-50, a recently developed drug that has been shown to induce tumor cell death even in the absence of the MMR pathway. *Conclusions*: Our results demonstrated that MSH6 and MLH1 deficient cells were resistant to TMZ while developing sensitivity to KL-50.

**Poster No.:** R-04

**Title:** Impact of COVID on In-Hospital Outcomes in Patients with Anemia: Perspectives from National Inpatient Sample

**Authors:** Sandra Cuevas Rodríguez, MD; Saad Javaid, MD; Kelly Frasier, MD; Ammad J. Chaudhary, MD

**Abstract:**

*Background:* The implications of COVID on anemia patients have expressed concerns because many of these individuals already have weakened immune systems and are more susceptible to severe illness. Our research aimed to comprehensively explore the multifaceted impact of COVID-19 on patients admitted for anemia and the adverse outcomes associated with COVID-19. *Methods:* We searched the National Inpatient Sample 2020 using ICD 10 codes to identify patients a hospitalized with a primary discharge diagnosis of anemia, with or without a secondary diagnosis of COVID infection. A weighted sample was employed to determine baseline patient characteristics. A multivariate regression model was used to estimate primary and secondary outcomes. *Results:* Among the 147165 patients admitted with anemia, 2290 had the concurrent diagnosis of COVID. Higher rates of mortality were noted among patients with COVID infection as compared to those without COVID. Length of stay was significantly

increased in COVID patients, 5.10 days vs. 3.38 days, but hospitalization costs didn't significantly rise. COVID patients had higher odds of GI bleeding but lower EGD and colonoscopy rates, including the procedures to control active GI bleeding. COVID patients were more likely to develop acute respiratory failure, but there was no statistically significant difference

between the two groups regarding mechanical ventilation or ICU admission. *Conclusion:* In conclusion, our data indicated that concurrent COVID infection in patients hospitalized with anemia could lead to increased mortality risk, higher rates of GI bleeding, acute respiratory failure, and longer hospital stays.

**Poster No.:** R-05
**Title:** Exploring Interdisciplinary Cross-Talk and Gap of Knowledge for Catamenial Epilepsy in Puerto Rico
**Authors:** Gladys Flores Romero, MD; Gabriela Betances, MD

**Abstract:**
Catamenial Epilepsy (CE) is an epilepsy largely influenced by hormonal fluctuations during menstruation. In Puerto Rico, there is lack of data regarding prevalence and interdisciplinary treatment, especially concerning women in reproductive age, perimenopause, and menopause stages. Addressing the needs of women with epilepsy (WWE) is a reproductive rights concern, due to prevalent rates of infertility, congenital malformations, oral contraceptive anti-epileptic drug interaction, and sexual dysfunction in this population (Ahmed, et al, 2014). The management of CE commonly relies on neurology directed overview, however not much literature discusses neurological and gynecological crosstalk and how this may offer a well-rounded approach when treating patients. Throughout a series of surveys directed to the Neurology and Gynecology medical teams at University District Hospital in Puerto Rico we plan to assess the current status and interest in offering interdisciplinary care, as well as gaps in knowledge between both specialties. During the second phase of the study, we aim to gather patients,Äô perspectives and interests in Neurology focused care vs interdisciplinary care for management of their condition. This data will offer insight into the needs of WWE and how an interdisciplinary approach may bring justice and equitable treatment to people with CE in Puerto Rico.

**Poster No.:** R06

**Title:** Factors Associated with Return to Sports in Patients Undergoing ACL Surgery: A 20-Year Analysis at a Tertiary-Care Children's Hospital

**Authors:** Rafael García, MD; Nazgol Tavabi, MD; James Pruneski, MD; Harsev Singh, MD; Mininder Kocher, MD; Benton Heyworth, MD; Ata Kiapour, MD

**Abstract:**

In recent years, ACL injuries and surgeries have surged, particularly among adolescents and young athletes. Deciding when to allow a return to sports post-ACL surgery is a complex decision with profound implications. It affects both individuals and society at large. Extensive research has focused on the timing of safe return to sports and its impact on ACL surgery outcomes, including the risk of reinjuries. However, little is known about the factors influencing return-to-sports timing, particularly among pediatric and adolescent populations. This study aimed to address this gap by analyzing a comprehensive database of ACL surgeries in pediatric, adolescent, and young adult patients over a 20-year period. Following institutional review board approval, a natural language processing (NLP) pipeline to extract ACL surgery cases from electronic health records at a hospital's orthopedics and sports medicine clinics was developed (2000-2020). The model achieved high accuracy, sensitivity, and specificity in identifying ACL surgery cases and extracting relevant variables. Sports activities were categorized into three levels based on intensity. We used linear regression to analyze the correlation between patient-related, surgical, and injury-related factors and the timing of return to sports. The study included 5,648 ACL surgeries, with 4,727 performed in children and adolescents (<20 years old). On average, patients returned to sports 213 ¬± 106 days after surgery. In bivariate analysis, several factors were associated with a later return to sports, including the surgery year, age, female sex, BMI, public insurance, longer surgery duration, and the use of certain autografts. Conversely, earlier return to sports was linked to participation in more intense activities, specific autografts, and medial meniscectomy. No significant associations were observed for less intense activities, mechanism of injury, reinjury, concomitant injuries, days from injury to surgery, allografts, IT band autografts, or lateral meniscus surgeries. Multivariable analysis confirmed that the surgery year, female sex, public insurance, longer surgery duration, and specific autografts were associated with a later return to sports. Conversely, participation in higher-risk sports was linked to an earlier return. This study, encompassing over 5,000 surgical cases, highlights the multifaceted impact of patient, injury, and surgical factors on the timing of return to sports after ACL surgery. The data underscores a trend toward delayed return to sports over the years, consistent with recent literature and guidelines. Notably, older age, female sex, higher BMI, and public insurance were associated with later return times, possibly influenced by patient preferences and follow-up disparities. Athletes involved in high-risk sports demonstrated a greater likelihood of early return, reflecting their eagerness to get back on the field. Distinct trends were also observed between meniscus repair and meniscectomy, warranting further investigation. Moreover, disparities between specific autografts suggest evolving practices in return-to-sports management. The timing of the return to sports is highly individualized, with significant implications for ACL surgery outcomes and patients' short- and long-term recovery and function. This study underscores the importance of considering various patient and surgical factors when making return-to-sports decisions, offering valuable insights to enhance outcomes and reduce the risk of reinjuries.

**Poster No.:** R-07

**Title:** Wearing your heart on your sleeve: Perception of Puerto Rican cardiologists regarding the use of smart watches and implantable loop recorders in managing atrial fibrillation

**Authors:** Roberto Lapetina Arroyo, MD; Angel Pagán, MD; Diego Calo, MD; Gabriel Horruitinier, MD; José López MD; Rolando Vargas MD; Hilton Franqui MD

**Abstract:**

*Introduction:* Atrial fibrillation (AF) is the most common sustained cardiac arrhythmia. A gamma of portable monitoring devices have become widely available and have proven to be of great use in the monitoring of atrial fibrillation. Implanted loop recorders (ILRs) have shown to have great sensitivity in recording arrhythmia events in long term arrhythmia monitoring. Recently, smartwatches have gained prominence as an unobtrusive alternative for heart rhythm monitoring. The use of these devices remains controversial. The purpose of this study was to create data on the perception of Puerto Rican cardiologists on the use of these devices in the management of atrial fibrillation. *Methods:* A questionnaire was administered by email and in-person to cardiologists currently practicing in Puerto Rico. Descriptive statistics were first used to present a profile of the participants demographic and professional data, their exposure to atrial fibrillation patients, and their perceptions of wearable devices for cardiac monitoring. Attitudes were evaluated through Likert scales, and the non-parametric approach was chosen for their assessment. The unadjusted relationship of these variables with having a self-reported cardiac subspecialty was gauged through the two sample Wilcoxon-Mann-Whitney rank-sum test. A p-value of $< 0.05$ was considered an indicator of a significant difference. Statistical analysis was performed using Stata 14.2. *Results:* Included survey participants were all physicians willing to answer the survey who are currently practicing in Puerto Rico as cardiologists. The answers of 49 respondents have been analyzed at this point. The mean age was 55 years (SD = 12.79). A 35% of participants identified having a cardiology subspecialty, the most common being interventional cardiology (n = 7). Close to 29% of respondents recommended heart rhythm monitoring using a smartwatch to 10% or more of their patients. About 39% of respondents referred more than 5 patients yearly for rhythm monitoring with an ILR. Close to 74% of respondents agreed with the statement that smartwatches are reliable alternatives for arrhythmia monitoring in most patients. However, only 33% of respondents agreed with the statement that smartwatches have comparable accuracy to ILRs in detecting arrhythmias. 47% of respondents stated that they would prefer to use smartwatches over ILRs in the setting of paroxysmal atrial fibrillation, and 51% of respondents also expressed this preference in the setting of permanent atrial fibrillation. 57% of respondents preferred using smartwatches over ILRs in the setting of low-risk atrial fibrillation (CHA2DS2-VASc < 1). 61% of respondents stated preferring ILRs for rhythm monitoring in patients with a history of stroke. Bivariate analysis of self-reported cardiology subspecialty and questionnaire attitudes showed non-significance in all associations ( p-value > 0.09); except in the consideration of recorded data accuracy, where subspecialized cardiologists identified this as a limiting factor to smartwatch use more often (p = 0.02). *Conclusion:* Puerto Rican cardiologists believe smartwatches are generally reliable devices for atrial fibrillation monitoring, particularly in low-risk patients. The main perceived drawback seems to be the relative accuracy of these devices in arrhythmia detection. Subspecialized cardiologists identified the accuracy of recorded data as a limiting factor more than non-subspecialized cardiologists.

**Poster No.:** R-08

**Title:** Endocrine Comorbidities and Multiple Sclerosis Diagnosis in Puerto Rican Population (2017-2020)

**Authors:** Ana Negrón García, MD; Emilette L Marrero-Torres, MD; David X. Carmona-Burgos, MD; Ramón J. Vega-Corteguera, MD; Viviana Martínez-Maldonado, MD; Kyara M Ostolaza-Oquendo, MD; Ivonne Vicente, MD; Angel Chinea, MD

**Abstract:**

*Background:* Multiple Sclerosis (MS) is an autoimmune disorder of the central nervous system with varying clinical presentations. MS presentation is believed to be affected by multiple factors like genetics, environment, geographic location, and comorbidities. In recent years and studies, the topic of comorbidities has become an area of increasing interest because evidence suggests that comorbidities adversely affect outcomes throughout the disease course in MS, including diagnostic delays from symptom onset, disability at diagnosis, and subsequent progression, cognition, mortality, and health-related quality of life1. Further, it has been presented that comorbidities can be a barrier to starting, switching, or tolerating Disease Modifying Therapies (DMTs). In addition, it is common for MS patients to develop certain types of comorbidities due to the use of some DMTs. Unfortunately, there are few studies in Hispanic populations; therefore, we want to assess the most prevalent endocrine comorbidities (EC) in the MS patient population in Puerto Rico (PR) and characterize these patients. *Objectives*: We aim to update and assess the most prevalent endocrine comorbidities in the MS patient population in Puerto Rico (PR) from 2017 to 2020. *Methods:* A cross-sectional study was conducted in which data from newly diagnosed patients from 2017 to 2020 in the San Juan (SJ) MS Center was obtained from the PR MS Foundation Registry (PRMSF). Descriptive statistics of variables were performed. Additional regression analysis and adjustments were made to understand the data further. Microsoft Access 2007-2016 and Microsoft Excel 2019 were used for data analysis. *Results:* From the PR MS Foundation Registry we obtained 255 newly diagnosed MS patients from 2017-2020 by the SJ MS Center and were evaluated for previous medical conditions, including chronic endocrine comorbidities. The data showed that females comprised 73% (187/255) of the MS population, while males comprised 27% (68/255).The preliminary analysis revealed that 59% (150/255) of these patients had been formerly diagnosed with an EC, and 18% (46/255) presented more than one EC. Additionally, the mean age acquired at diagnosis of females with MS was 39.9 years, and for males with MS was 26 years. *Conclusion:* The preliminary results showed that more than half of the study population presented an EC at the moment of MS diagnosis. It is essential to treat these conditions simultaneously because MS could progress faster for patients with an uncontrolled EC. Further analysis is needed to establish a possible relationship between endocrine conditions and multiple sclerosis. Establishing a connection is critical in order to provide better treatment and outcomes.

**Poster No.:** R-09
**Title:** A Sociomedical Study of Gastrointestinal Diseases Identified in a Puerto Rican Cohort
**Authors:** Humberto Nieves Jiménez, MD; Andrea Firpo-Pabon, MD; Jean Carlos Martínez-Izquierdo, MD; Juan Mercado-Potes, MD; Sebastián Portela-Colón, MD; Manuel Colón-Terrón, MD; Christian Colón-Vega, MD; Eric González-Morales, MD

**Abstract:**
*Introduction*: In recent years, Puerto Rico (PR) has experienced an increase in certain gastrointestinal (GI) diseases. For instance, the prevalence of inflammatory bowel diseases (IBD) exhibited a 4-fold increase from 2005 (32.8/100,000) to 2013 (181.54/100,000). Sociodemographic factors may influence prevalence, clinical presentation, and outcomes of GI diseases. This study aims to assess the landscape of GI diseases in a Puerto Rican cohort and delineate associated sociodemographic factors. *Methods*: A questionnaire with sociomedical inquiries was distributed at a COVID-19 vaccination clinic between December 2020 and May 2022. Of approximately 5,000 people vaccinated, we retrospectively identified adult participants of ages 21+ with GI diseases. Bivariate analyses pertaining to possible correlations between sex, race, and GI pathologies were executed. This study is IRB-approved. *Results*: A total of 100 participants (68F/32M, mean age: 57.6 ¬± 18.6) with GI diseases were identified. The most prevalent pathologies were intestinal (50.0%), upper GI (34.0%), hepatic (12.0%), and those with lactose intolerance (5.0%). The intestinal group included IBD (30.0%), diverticular disorders (22.0%), irritable bowel syndrome (IBS) (20.0%), and colonic diseases (20.0%). The most prominent subgroup in the upper GI category included self-reported reflux/gastritis (82.4%) and gastroesophageal reflux disease (11.8%). Additionally, fatty liver disease accounted for 25.0% of the hepatic group. When assessing race, 63.0% identified as White and 33.0% as Other Race. There was a significantly higher prevalence of diverticular disorders (p=0.012) and self-reported reflux/gastritis (p=0.024) in those who identified as Other Race. No association was found between race and prevalence of IBS (p=0.758), hepatic disease (p=0.935) or IBD (p=0.926). There was no statistical significance when comparing sex and prevalence of IBS (p=0.567), IBD (p=0.054), diverticular disease (p=0.297), self-reported reflux/gastritis (p=0.137) or hepatic disease (p=0.154). *Conclusion*: Data revealed a notable predominance of intestinal and upper GI pathologies. Self-reported reflux/gastritis and diverticular disorders accounted for an increased prevalence in those identifying as Other Race. Nonetheless, sex was not a determinant for the prevalence of GI diseases. This data is essential to assess changing trends pertaining to emergent GI diseases in the Puerto Rican population.

**Poster No.:** R-10

**Title:** Genetic Testing in Hermansky-Pudlak Syndrome: Association between Pulmonary Fibrosis and Hermansky-Pudlak Syndrome Type 1 Patients in the Southwest Region of Puerto Rico.

**Authors:** Kyrsha Ramírez Gorbea, MD; José Soto-Santiago, MD; Rosa Román-Carlo, MD; Simon Carlo-Torres, MD; Enid Rivera-Jiménez, MD

**Abstract:**

Hermansky-Pudlak Syndrome (HPS) is a rare autosomal recessive disorder characterized by oculocutaneous albinism, bleeding disorder and other organ association depending on the types.1 It affects 1-9 individuals in 1 million worldwide. The prevalence in Puerto Rico is about 1 in 1800 individuals and 1 in 22 individuals are carrier of the mutation, it is more common around the northwestern region of Puerto Rico. HPS is caused due to a homozygous or compound heterozygous mutation in 1 out of 11 genes. Patients with HPS may present with skin and eye conditions, such as decreased pigmentation of skin and hair, have a higher risk of skin cancer; squamous cell and basal cell carcinoma and oculocutaneous complications leading to nystagmus, strabismus and ocular sensitivity. HPS patients have a risk of bleeding. These patients also present with lung problems such as pulmonary fibrosis, which is the leading cause of death in HPS, it is associated with type 1, 2 and 4. Symptoms may begin in the early 30s for type 1 HPS and may have and earlier onset in type 2 HPS. Patients present with slow onset of dyspnea on exertion and at rest with nonproductive cough leading to O2 supplementation and acute respiratory failure. Life expectancy in patients with pulmonary fibrosis is approximately 10 years after the diagnosis of restrictive lung disease is made in the absence of lung transplantation. To establish the diagnosis of HPS, laboratory studies, a comprehensive eye examination, and molecular genetic testing are necessary. Genetic testing confirms the diagnosis of HPS and determines the HPS type. This is relevant, as each genetic type may manifest phenotypically different and influences on prognosis, surveillance, and genetic counseling. The research study will include a retrospective analysis of genetic data of Hermansky-Pudlak patient's type 1 in Mayaguez Medical Center, from February 2022 to February 2023. A simple random sample is to be selected of about 35 patients with genetic testing available. Data from medical records of each patient will be evaluated for the necessary data described above. Will evaluate if patient's have had history of bleeding, transfusion of any blood product and/or history of colitis. Patients demographics will include patients characteristics (Age, gender, BMI) and comorbid conditions (e.g. Diabetes mellitus, hyperlipidemia, Cystic Fibrosis, Primary Ciliary Dyskinesia, etc). Patient's current medications will be included in the study for data gathering purposes. The study will not include if these patients were recently admitted to the hospital. The goal is to find if there is a gene predisposing to pulmonary fibrosis in patient with HPS other than HPS1.

**Poster No.:** R-11

**Title:** A Fully Automated Multi-Tissue Multi-Sequence Knee Segmentation Pipeline For Studying Soft Tissue And Bony Structures in 3D

**Authors:** Alexandra Santos, MD; M. Singh, MD; J. Kim, MD; L. Gilreath, MD; B. Brooks, MD; S. Kaushal, MD; A. Kiapour, MD

**Abstract:**

*Introduction*: Magnetic resonance imaging (MRI) has been frequently used for the noninvasive assessment of the knee joint. 3D evaluations of the anatomy and structural properties (e.g., relaxometry) of the joint structures are constrained by the need for manual segmentation. Deep-learning is a popular approach to automate the 3D segmentation process from medical images. We developed a deep-learning-based autosegmentation pipeline capable of segmenting soft tissue and bony structures from commonly used clinical sequences (i.e., PD: proton density-weighted and DESS: double-echo steady-state). *Methods*: MRIs of both surgically treated and healthy contralateral knees of subjects (n= 159; age: 19.8¬± 5.2 years, 57% female) were obtained. We built a comprehensive data set of 338 knee MRI scans for each sequence, acquired from time points between 3 to 72 months post-surgery. Using commercial image processing software (Mimics v21), bones, as well as the soft tissues, were manually segmented by an experienced examiner on a subset of 100 MRIs. A modified model was trained on the manually segmented MRIs to create a baseline network. The baseline model was used to segment the rest of the dataset which was manually checked and corrected. Anatomical similarity was assessed with the Dice coefficient and Hausdorff distance. Statistical tests (paired t-test) were performed to compare model performance across PD and DESS MRI sequences. *Results*: The final model-generated segmentations for both PD and DESS scans were anatomically similar to the ground truth annotations (Figure 1). For the PD-SPACE MRIs, the average Dice was 0.98 (0.93 to 0.99) and the average surface distance was 0.5 mm (0.44 to 0.80) across all labels (Figure 1). For DESS MRIs, the average Dice was 0.94 (0.88 to 0.98) and the average surface distance was 0.7 mm (0.50 to 1.21) across all labels (Figure 1). On average the model performed better on PD than DESS across all labels for the Dice coefficient (0.007 to 0.05; $P<0.001$); and reported a significant difference in the Hausdorff distance for bony structures (0.004 to 0.41 mm; $P<0.001$). There were no significant differences in the soft tissue segmentations between the two sequences. *Discussion*: The observed superior performance of our multi-tissue segmentation model on PD and DESS sequences highlights the potential of the current approach to be integrated into clinical care. The manual segmentation and model training helped reduce the time to segment one scan from 1 day to 20 minutes, and the final network took about 30 seconds. The data supports the ability of the proposed deep-learning pipeline to generate 3D models with high accuracy at a fraction of the time it takes a human annotator. Future work involves expanding the current model to other sequences and data with the ultimate goal of developing robust pipelines for 3D evaluation of knee shape and tissue structural properties.