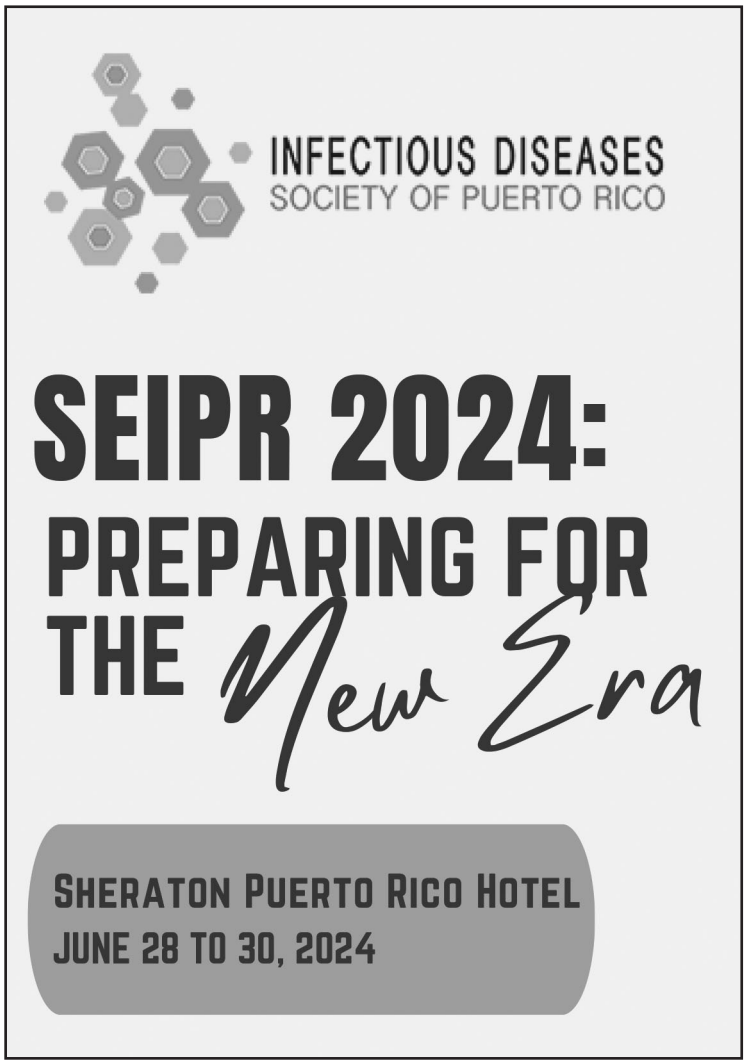

PP #1 - Acute bacterial symphysis pubis osteomyelitis as an unusual complication of recurrent urinary tract infection (2ND PRIZE WINNER)

Jesús Rivera-Rosa, MD; José Irizarry-García, MD; Janice Campos-Ortiz, MD; Juan C. Lemos-Ramírez, MD
Veterans Affairs Caribbean Healthcare System, San Juan, Puerto Rico

Symphysis pubis osteomyelitis (OM) is a rare complication commonly linked to bacteremia, trauma, intravenous drug use, pressure ulcers, and surgical procedures, with limited data connecting it to recurrent complicated urinary tract infections (C-UTI). This case presents a 90-year-old male patient with a history of recurrent C-UTI due to neurogenic bladder who presented with suprapubic pain, subjective fever, malaise, and poor oral intake. Despite lacking anatomical defects or prior trauma, the patient's urologic background included radiation cystitis for prostate cancer treatment. On examination, he appeared acutely ill with notable suprapubic tenderness. Laboratory tests revealed pyuria, bacteriuria, and leukocyte esterase in urine, while blood cultures remained negative. Treatment was adjusted based on urine culture results, identifying multi-sensitive *Proteus mirabilis* and *Pseudomonas aeruginosa*, leading to a tailored antibiotic therapy with Cefepime. Limited clinical improvement prompted an abdominopelvic CT scan, which revealed new widening of the symphysis pubis and destructive changes consistent with acute OM. This case is unique as there is limited literature describing acute bacterial symphysis pubis OM as a complication of recurrent C-UTI. A friable bladder mucosa (secondary to radiotherapy to pelvic region), urinary stasis due to neurogenic bladder, and recurrent C-UTI likely facilitate the contiguous spread of infection to adjacent bony structures. This diagnosis should be suspected in patients with recurrent C-UTI that fail to respond to adequate treatment even in the absence of traditional risk factors.

PP #2 - A complicated case of Disseminated Histoplasmosis: a triad of Hemophagocytic Lymphohistiocytosis (HLH), Acute Pancreatitis, and Disseminated Intravascular Coagulopathy (DIC) (1ST PRIZE WINNER)

Eduardo J. Malavé-Santiago, MD; Deborah Santos-Sierra, MD;
Natasha Santiago-Santos, MD
Gloria Jové-Gotay, MD; María Del Mar Torres-Pérez, MD;
Amaury Segarra-Torres, MD
Internal Medicine Residency Program, Hospital de la Concepción,
San Germán, Puerto Rico

A 35-year-old man with HIV and inconsistent use of antiretroviral treatment for 12 years presented to the emergency department with a 3-month history of high fever, generalized weakness, fatigue, poor appetite, persistent diarrhea, and 30-pound weight loss. He had been previously hospitalized due to pneumonia and was discharged on treatment with trimethoprim-sulfamethoxazole for a presumed diagnosis of *Pneumocystis jirovecii* pneumonia. Physical examination showed fever (39.5 °C), sinus tachycardia, shortness of breath, dry cough, and hepatosplenomegaly. Laboratory testing revealed pancytopenia. Further record review from previous hospitalization revealed positive urine and serum antigen for *Histoplasma*. Peripheral blood smear showed neutrophilic inclusions, with schistocytes and macroplatelets, suggestive of disseminated histoplasmosis and Disseminated Intravascular Coagulopathy (DIC), respectively. Bone marrow biopsy showed numerous intracellular fungal yeast organisms, with several stains positive for intracellular fungal yeast. Due to evidence of bone marrow invasion by *Histoplasma*, combined with high-grade fever, hepatosplenomegaly, hypertriglyceridemia, hypofibrinogenemia, hyperferritinemia, and elevated soluble CD25 levels, Hemophagocytic Lymphohistiocytosis (HLH) was diagnosed. Oral Itraconazole was started due to intravenous liposomal Amphotericin B national shortage. Clinical picture was complicated by acute pancreatitis and persistent DIC, requiring multiple blood product transfusions. After transitioning to Amphotericin B, clinical improvement was noted, with resolution of pancytopenia, pancreatitis, and DIC. Recognition and adequate treatment of Disseminated Histoplasmosis as the potential cause of HLH in this immunocompromised host were key for the patient's survival.

PP #3 - Rare Case of Ulcerative Colitis Presentation with Superimposed Herpes Simplex Virus I and II

Edward Miller Vazquez, PGY-1[1]; Luis Ortiz Torres, MD[2]; Charlie Griffin, MD[3]
Nelson Valentin, MD[4]; Marielys Otero, MD[5]
[1]Family Medicine Residency Program, Manatí Medical Center, Manatí, Puerto Rico
[2]Medical Education Department, Manatí Medical Center, Manatí, Puerto Rico
[3]Department of Family Medicine, Manatí Medical Center, Manatí, Puerto Rico
[4]Section of Gastroenterology, Department of Internal Medicine,
Manatí Medical Center, Manatí, Puerto Rico
[5]Section of Infectious Diseases, Department of Internal Medicine,
Manatí Mental Center, PO Box 1142,
Manatí, Puerto Rico 00674

Ulcerative colitis (UC) may usually present with chronic diarrhea often with hematochezia. We present the case of a 76-year-old man with prostate cancer treated with radiotherapy who was admitted with signs and symptoms suggestive of colitis: persistent non-bloody diarrhea and abdominal pain of 3 weeks of evolution. Upon admission, work-up for infectious foci was prioritized due to left-sided colitis depicted via computed tomography (CT) scan. He was treated empirically with intravenous (IV) antibiotics with partial improvement. Flexible sigmoidoscopy was remarkable for extensive UC. A blunt biopsy of the descending colon showed severe active chronic colitis with ulceration, with positive immuno-histochemistry for Herpes Simplex Virus (HSV) types I and II. He was then managed with IV steroids in combination with antiviral therapy, with the resolution of symptoms. There is limited evidence-based medicine on management plans for HSV superimposed infection with inflammatory bowel disease (IBD). HSV is mainly managed with Acyclovir, but Valacyclovir or Famciclovir may be used. Duration of treatment varies according to severity and location. Here we describe a patient with HSV I and II infection with a di novo UC diagnosis.

PP #4 - Leptospirosis: Unveiling the intricacies of a zoonic infection in pancreatitis

Alexander Alfaro-Rivera, MD; Diego Díaz-Mayor, MD
Juan Lemos-Ramírez, MD
Veterans Affairs Caribbean Healthcare System, San Juan, Puerto Rico

We would like to highlight the association between leptospirosis and pancreatitis, emphasizing the importance of timely diagnosis and management. We report a case of a 63-year-old Puerto Rican male presenting to the emergency department five days after Hurricane Fiona, exhibiting acute abdominal pain and other systemic symptoms. Laboratory studies revealed a lipase increase from 843 to 1064 U/L, elevated liver enzymes, leukocytosis, mild thrombocytopenia, and moderate hyponatremia. Sonography showed no gallstones. The patient had a febrile spike with jaundice on day two. A history of exposure to rodent feces during hurricane preparations led to suspicion of leptospirosis, confirmed by *Leptospira* DNA testing. The patient was treated with Ceftriaxone and was discharged after completing the course. This experience is a reminder that leptospirosis should be included in the differential diagnosis of acute febrile illness, especially in endemic regions. This case illustrates the risk of pancreatitis associated with leptospirosis, highlighting the need for awareness and prompt management to prevent severe complications.

PP #6 - Pyogenic liver abscess, an unusual complication of post-COVID-19 infection

José J. Irizarry-García, MD; Wilfredo M. Pedreira-García, MD
and Juan Lemos-Ramírez, MD
Veterans Affairs Caribbean Healthcare System, San Juan, Puerto Rico

A 55-year-old man with steatohepatitis and a 1-week history of COVID-19 infection treated with nirmatrelvir/ritonavir presented worsening dyspnea, night chills, headaches, watery diarrhea, and vomiting. There was no abdominal pain or jaundice. Vital signs showed fever and hypoxemia, while laboratories revealed leukocytosis (27.4x10-3/ul), hyperbilirubinemia (1.6 mg/dl), AST at 34 U/L, and ALT at 29 U/L. Viral respiratory panel was negative. There was palpable hepatomegaly. Abdominopelvic computed tomography (CT) showed two large hepatic abscesses measuring 7cm x 12cm x 6cm and 3.5cm x 1.4cm x 6.4cm. The patient was started empirically on piperacillin/tazobactam. The purulent material was drained percutaneously, but cultures did not grow organisms. Similarly, stool work-up was negative and blood cultures showed no growth. A pyogenic liver abscess is a purulent-filled mass commonly caused by bacteria or parasites. However, there is limited evidence of viruses as etiologic agents. 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.

PP #7 – Vancomycin, Cefepime, and Acute Generalized Exanthematous Pustulosis (AGEP): A Troublesome Trio (3RD PRIZE WINNER)

Cecilia M. Soler Llompart, MD; Alejandro Carmona Casillas, MD
Noelia García Pérez, MD Natalia Laguna Santiago, MD; Nicole Rassi Stella, MD
Internal Medicine Residency Program, Department of Internal Medicine Department,
University of Puerto Rico School of Medicine, Medical Science Campus,
San Juan, Puerto Rico

A 28-year-old woman with seizures was admitted due to status epilepticus that required mechanical ventilation for airway protection. Hospitalization was complicated by Methicillin-resistant *Staphylococcus epidermidis* and *Pseudomonas aeruginosa* bacteremia. Antibiotic therapy with IV Vancomycin and Cefepime was started. However, the regimen was transitioned to IV Levofloxacin and Doxycycline. The patient developed erythematous papules that coalesced into plaques. Due to worsening leukocytosis with neutrophilic predominance and febrile episodes, Vancomycin and Cefepime were restarted. Following re-exposure, the patient developed worsening skin eruption,

affecting up to 50% of the total surface area. Many nonfollicular pustules with erythematous patches and macules were present in the thighs, trunk, cheeks, axilla, and upper/lower extremities. There was no evidence of mucous membrane involvement, lymphadenopathy, or organomegaly. A punch biopsy of the lesions was remarkable for sub-corneal vesicle pustules associated with mixed inflammatory infiltrates with eosinophils and neutrophils. The cutaneous eruption progressed to generalized desquamation with associated pruritus. Acute Generalized Exanthematous Pustulosis (AGEP) was the most likely diagnosis. Although determining the exact culprit was challenging due to polypharmacy, Vancomycin or Cefepime were suspected, given the patient's prior exposure and the rapid worsening following re-exposure. Upon discontinuation of antibiotic therapy, there was a significant improvement in skin eruption. AGEP is a rare cutaneous disorder caused by a hypersensitive reaction. Diagnosis is based on clinical presentation and histologic examination of skin biopsy. Although AGEP is self-limited, proper diagnosis is required to avoid delay in discontinuing the causative agent to shorten disease duration.

PP #8 - Overlooked Possible Menace to Life also known as Progressive Multifocal Leukoencephalopathy

Alejandro Carmona-Casillas, MD[1]; Fabiola Feliciano-Bonilla, MD[2]
Jamil Abou El Hossen-Carmona, MD[1]; Cecilia M. Soler-Llompart, MD[1]; Victoria Pinto-Sánchez, BS[1]
Wilfredo J. Villafañe-Ortiz, BS[1]; Juan C. Santiago-González, MD[1]
[1]Department of Internal Medicine, University of Puerto Rico School of Medicine,
Medical Sciences Campus, San Juan, Puerto Rico;
[2]Department of Internal Medicine, Veterans Affairs Caribbean System,
San Juan, Puerto Rico

Progressive Multifocal Leukoencephalopathy (PML) is a rare but life-threatening complication of untreated HIV with a life expectancy of about one year. Detection of JC virus DNA in the cerebrospinal fluid (CSF) has a sensitivity of 70-80%, meaning that a negative result does not necessarily rule out the diagnosis of PML secondary to JC virus. We present the case of a patient with AIDS (HIV RNA of 4370 cp/mL and absolute CD4 of 17 cells) who exhibited symptoms of PML: left-sided hemiplegia associated with neuropathic pain along with left nasolabial flattening, asymmetric smile, and decreased facial sensation of the left side in the V2-V3 dermatomes. A brain MRI demonstrated a hyperintensity involving infratentorial and supratentorial compartments, including portions of the body of the corpus callosum, that did not show enhancement after contrast administration, suggestive of PML based on the clinical history of HIV/AIDS. He was initially discharged from another institution with neurologic symptoms because the lumbar puncture revealed a negative JC Virus PCR. However, he was possibly undiagnosed. It is important for clinicians to identify early symptomatology and have a low threshold to explore neurologic symptoms in persons living with HIV/AIDS. This vigilance can prevent or slow the progression of this fatal disease, which predominantly affects a marginalized population.

OP #1 - Mycobacterium shimoidei for the first time in Puerto Rico

David G. Cotto-Vélez, MD; Juan C. Lemos-Ramírez, MD; Gloria E. Soto-Pillich, MD
Infectious Diseases Fellowship Program, Veterans Affairs Caribbean
Healthcare System, San Juan, Puerto Rico

An 88-year-old man presented with productive cough and fatigue of 3 months of evolution. He denied hemoptysis, weight loss, fevers, chills, night sweats or exposure to tuberculosis. Sputum samples were positive for acid-fast bacilli (AFB), but negative for the *Mycobacterium tuberculosis* PCR. Bronchial alveolar lavage (BAL) samples reported normal cytology and positive AFB. Azithromycin, Rifampin, and Ethambutol were started. *Mycobacterium shimoidei* was identified in 2 sputum and in all BAL samples. The patient experienced intolerable gastrointestinal side effects. Alternative options and the possibility of gradually introducing agents to identify the drugs triggering symptoms were offered, but the patient opted to discontinue antibiotics and monitor his condition. To our knowledge, there are no cases of *M. shimoidei* reported in Puerto Rico. Worldwide, less than 50 cases have been documented causing infection to humans. *M. shimoidei* is significantly more susceptible to Rifabutin (100%) than Rifampicin (24%). Although in this case we could not assess bacterial clearance due to the patient's intolerance to therapy, it contributes valuable data to the existing literature.

OP #2 – The Silent Threat: A Rare Case of Cerebral Toxoplasmosis in Myasthenia Gravis

Gloria I. López-Peña, MD; Camille González-Morales, MD
Section of Infectious Diseases, Department of Internal Medicine, University of Puerto Rico
School of Medicine, Medical Sciences Campus, San Juan, Puerto Rico

Only a few cases of central nervous system (CNS) toxoplasmosis have been reported and described in individuals on immune agents for autoimmune diseases. An 82-year-old woman with myasthenia gravis (MG), hypertension, and type 2 diabetes mellitus presented with a one-week history of generalized malaise and headaches. Symptoms were associated with imbalance, which worsened and progressed to disorientation, altered mental status, left-sided hemiparesis, nasolabial flattening, neck flexor weakness, and involuntary movements. She reported compliance with her mycophenolate mofetil (MMF) and pyridostigmine. The physical examination was remarkable for waxing and waning mental status without evident neurological deficits. Serology tests were non-reactive for HIV antigen/antibody, hepatitis panel, and rapid plasma reagin test. Brain magnetic resonance imaging (MRI) showed lesions within the right parietal and occipital lobe with central restricted diffusion and rim enhancement. She was admitted with the clinical impression of multiple cerebral abscesses of unknown etiology versus metastatic disease. Eventually, a right-sided craniotomy was performed and the brain biopsy revealed the presence of *Toxoplasma gondii*. Serum toxoplasma immunoglobulins G were markedly elevated. Given these findings, the patient was started on a high dose of trimethoprim/sulfamethoxazole (TMP-SMX) with significant improvement. Eventually, she was transitioned to oral TMP-SMX, completed six weeks of therapy, and was discharged home. Within four months of treatment, she had marked improvement and has remained in complete remission. This case highlights the significance of awareness of this condition and emphasizes the need for a high degree of suspicion for CNS toxoplasmosis in immunocompetent patients.

OP #3 – Shoulder Prosthetic Joint Infection with Penicillium species

Diego Canabal-López, MD; Juan C. Lemos-Ramírez, MD; Gloria E. Soto-Pillich, MD
Infectious Diseases Fellowship Program, Veterans Affairs
Caribbean Healthcare System, San Juan, Puerto Rico

A 74-year-old man presented with a 2-week history of left shoulder pain, warmness, and swelling. The patient had history of left shoulder arthroscopic repair in 2012 and reverse shoulder arthroplasty one-year prior presentation. Bacterial and mycology cultures from synovial fluid reported no growth. He underwent hardware removal, resection arthroplasty, debridement, and humeral osteotomy. Purulent material was observed. Intraoperative culture reported *Penicillium species*. The patient was treated with intravenous liposomal Amphotericin B for 14 days, followed by 12 weeks of oral Voriconazole. Arthrocentesis was repeated at 12 weeks with no bacterial or fungal growth. Inflammatory markers decreased to normal limits. The patient is pending a two-stage reimplantation. Although rare, fungal prosthetic joint infections can result in a serious surgical complication. Diagnosis and management can be challenging due to its indolent clinical course. Our case highlights the importance to understand the dynamics of fungal prosthetic joint infections and creates awareness about Penicillium as an underestimated pathogenic fungus.

OP #4 – A common infection with a fatal outcome

Jonathan Ruiz García, MD[1,2]; Jose Feneque, MD[2,3]; María Marcos, MD[2,3]; Gabriel Galíndez de Jesús, MD[1,2]; Camille González Morales, MD[1,2]
[1]Section of Infectious Diseases, Department of Internal Medicine, University of Puerto Rico
School of Medicine, Medical Sciences Campus, San Juan, Puerto Rico
[2]Adults' University Hospital, Puerto Rico Medical Center, San Juan, Puerto Rico
[3]Department of Pathology and Laboratory Medicine, University of Puerto Rico School of Medicine,
Medical Science Campus, San Juan, Puerto Rico

A 27-year-old man with untreated systemic lupus erythematosus (SLE) presented with a 9-day history of throat pain and malaise. The patient took amoxicillin/clavulanate (unknown doses and duration) without improvement. Symptoms progressed to dysphagia, drooling, dyspnea on supine position, dysphonia, stiffness in neck, neck pain, and trismus. A computed tomography (CT) of the neck

was concerning for tonsillar abscess, for which he was transferred to a supra-tertiary hospital. Upon arrival, a biopsy was performed and abscess drainage was attempted, obtaining 0mL. After biopsy, the patient required intubation. On physical examination, there was tenderness at the right lateral aspect of the neck, palpable lymphadenopathy, pharyngeal erythema with residual blood. The skin showed scant, scattered, small erythematous, non-blanching macules in the left palm, left hand, left thigh, left foot, and right foot. Laboratory work-up was remarkable for leukocytosis, bandemia, acute kidney injury, transamitis (AST > 7000; ALT > 5000 U/L), increased LDH, lactatemia, ANA titer at 1:>2560, low C3, and low C4 levels. The patient was started on intravenous acyclovir for suspected herpes hepatitis, but he expired due to progression of condition. Autopsy was compatible with disseminated HSV infection with multiorgan failure. This is a reminder that herpes hepatis should be considered in immunosuppressed patients with anicteric febrile hepatitis and marked transaminitis.