

MAIMONIDES MEDICAL CENTER

IM RESIDENT RESEARCH DAY-2020

ABSTRACT SUPPLEMENT

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**ABSTRACT
SUPPLEMENT
2020**

MESSAGE TO THE RESIDENTS

“The faculty of the Department of Medicine at Maimonides Medical Center believes that internal medicine residents are usually willing to develop and participate in research projects. ACGME guideline/requirements for scholarly activity/research by internal medicine residents are quite specific. For those internal medicine residents who eventually decide to seek fellowships, and recognizing that fellowships are fairly competitive, thus candidates with scholarly and/or research activity may have an advantage (especially for the more competitive sub-specialties).

Our residency program leadership strives to nurture your participation and development of a research project, ideally during the PGY-1 year. While we do recognize that limited non-clinical time during internship poses a challenge, the unique support and guidance provided by Dr. Lin and the active involvement and commitment of the research associates are facilitative. Early involvement in scholarly activity/research may stimulate PGY-1’s to begin consideration of an academic career path. The early start also provides greater total time during residency to complete the project. Because most residents apply to subspecialty fellowship during the PGY-2 year, starting a research project during internship can be crucial to a successful application for fellowship positions.

The IM Residency Research Evening on March 26th provides a great opportunity for our trainees to be recognized by presenting their work. Congratulations and very best wishes for continued success to all. ”

Stephan Kamholz, MD

Chair

“I wish to extend my sincerest congratulations to all the residents who submitted the fruits of their labor to our 2020 IM Resident Research Day. I recognize that it is no easy task to conduct research while also fulfilling the duties of residency. That you all have been able to create these impressive projects is a demonstration of your diligence, dedication, and commitment to enhancing medicine’s body of knowledge.

Yes, there is an ACGME requirement for scholarly activity as well as a need to build one’s curriculum vitae for fellowship applications. Yet research is not simply a means to an end for

physicians-in-training. It allows residents to make substantial contributions to the broader knowledge base and creates a foundation for what in many cases may be a lifelong pursuit of research in the careers that follow.

Consistent with his belief in everyone's potential, our beloved Dr. Kamholz was a huge supporter of the research pursuits of our residents. He guided many of you in the development, implementation, and writing up of your projects. Your fine work presented in these pages stands as a tribute to his mentorship. He inspired you all to be your best selves and that is certainly reflected here.

I want to thank all of the faculty mentors who helped you all achieve these goals. I also want to acknowledge the hard work of our Residency Research Director, Dr. Yu Shia Lin, as well as that of your Chief Resident for Research, Dr. Isaac Mizrahi. Finally, my heartfelt gratitude to our Research Associates, Niyati, Tiffany, and Meer, who worked diligently behind the scenes under the guidance of Antonios Likourezos, to support all of the residents' research projects.

I am sorry that we were unable to honor your accomplishments in person this year and I hope we will be able to do so in the not-too-distant future. In the meantime, keep building on these successes, for yourselves and for all the patients who will be impacted by the dissemination of your research. Again, my heartfelt congratulations to all!"

Maimonides

Lawrence Wolf, MD
Program Director

"Heartiest congratulations to all residents!

I hope you take a moment to reflect on your success thus far and recognize the contributions you have made to our combined achievements. I am inspired by your dedication, and truly honored to be a part of your journey at Maimonides.

Today and always, we remember Dr. Kamholz and appreciate the opportunities he created for our internal medicine residents. Together, we will work hard to carry on his legacy by continuously improving the research program to support future generations of physicians."

Yu Shia Lin, MD
Director of Research

“To all the residents, it has been a pleasure working with you all this year. The amount of creativity, ingenuity, and eagerness to improve our hospital system has been inspiring to see within each group of projects. To have worked so diligently throughout the year on research pursuits in conjunction with your clinical responsibilities demonstrates a dedication to continued learning that is truly inspiring. This collection of projects is but a fraction of the work currently ongoing in the department of medicine and I look forward in the years ahead to see the contributions that should come from the MMC family to medicine as a whole. To Dr. Lin and the IM research associates, I thank you for your leadership and hard work. Most sincerely, I’d like to thank Dr. Kamholz for all of his support and help towards building a research infrastructure to assist the residents in their inquisitive pursuits.”

Isaac Mizrahi, MD
Chief Resident, Research

“We would like to thank the Department of Medicine for their constant support in providing resources necessary for residents to conduct research at Maimonides. Today’s symposium is the celebration of their hard work and dedication to scientific research and scholarly activities. We would like to congratulate all the residents on all that they have achieved. Thank you for your enthusiasm and engagement throughout this process. We look forward to continuing to work with you throughout the rest of your time here at Maimonides!”

Antonios Likourezos, *Research Manager*
Dr. Niyati Gupta, *Research Associate*
Tiffany Ming, *Research Associate*
Dr. Meer Deen, *Research Associate*

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1

Atypical Presentations as a Diagnostic Challenge of Tuberculosis in a Community Hospital

Varun Tej Gonuguntla MD, Maria J. Suarez MD, Mahin Alamgir MD, Meer Deen MD, Aparna Tiwari MD, Monica Ghitan MD, Edward K. Chapnick MD, and Yu Shia Lin MD

Objective: Tuberculosis (TB) is an infectious airborne disease caused by *Mycobacterium tuberculosis*. New York City has an incidence of 6.8 per 100,000 population, with an increasing proportion of cases in foreign-born persons. The study was conducted at a large urban teaching hospital which serves a diverse immigrant population. Not all patients with TB present with typical symptoms, making the diagnosis of TB challenging. The purpose of the study is to provide a contemporary description of symptoms of TB patients, and information regarding subgroups with an atypical presentation.

Methods: We performed a retrospective chart review of patients admitted to MMC from January 1, 2016 through June 30, 2019 with a confirmed diagnosis of pulmonary or extrapulmonary TB. Patients younger than 18 years old, and with non-TB infections were excluded. Patients' demographic, clinical, microbiologic and radiologic data were collected. Typical symptoms were defined as: cough for more than 2 weeks, fever, night sweats, hemoptysis, and weight loss.

Results: 69 patients had confirmed TB. They were predominantly male (72%), foreign born (85.5%), and Asian (71%). 77% of patients had Pulmonary TB, and 23% had extra-pulmonary TB. Overall, 65% of patients presented typical symptoms and 35% had atypical presentation; 14% having a normal chest x-ray. QuantiFERON (Qiagen, Germantown, MD) TB gold test was performed in 50% of patients; 37.1% had a negative result. Interestingly, 4% of typical patients (TP) and 42% of atypical patients (ATP) required more than one admission to arrive at a definitive diagnosis. ATP were less likely to have the following: a positive sputum AFB smear (48.1% vs. 80.0%; $P < .01$), a positive AFB culture (81.5% vs. 97.5%; $P < .01$), being placed on airborne isolation (81.5% vs. 100%; $P < .01$), requiring a longer delay of isolation (3.35 ± 3.8 vs. 1.05 ± 0.23 ; $P < .0001$) and a longer delay obtaining ID consultation after admission (2.54 ± 2.1 vs. 1.23 ± 0.66 ; $P < .0001$), when compared to TP.

Conclusions: Atypical presentations of TB are more common than expected. The absence of classical symptoms may lead to delay in diagnosis of TB. Awareness of atypical presentations, especially in immigrants from Asia, can result in earlier isolation and treatment, with improved clinical outcomes and decreased transmission.

2

Recognizing and Addressing Newly Diagnosed Diabetes Among Admitted Patients with Hyperglycemia: A Quality Improvement Project

reflecting the need for an automated alert to test for Diabetes Mellitus (DM) in patients with elevated random blood BGMs

Isaac Mizrahi MD, Eliza Sharma MBBS, Jevon Samaroo-Campbell MD, Maria Suarez MD, Sarah Rosine Rosanel MD, Jocelyne Karam MD

Objective: Upon recognizing the delinquency at our institution in recognizing and diagnosing diabetes in the inpatient setting, we sought to intervene via education to the staff of cardiac telemetry. Our goal was to increase the diagnosis and mention of diabetes in the discharge summary, thereby addressing an important comorbidity of cardiac disease that requires close outpatient observation.

Methods: Throughout November 1, 2017 until February 28, 2019 we educated the Physician Assistants and the Residents working on the cardiac telemetry floor (G2/B2) regarding the importance of checking HgbA1C when a patient has a random plasma glucose reading of more than 200mg/dL as well as the importance to document diabetes mellitus as a diagnosis on the discharge summary.

Results: Pre-intervention data of 735 patients admitted to cardiac telemetry between December 1, 2016 to January 31, 2018 and with BG>200mg/dl at least twice demonstrated a substantial number of patients admitted to cardiac telemetry without HbA1C testing despite repeatedly high BGM levels during their stay (137 patients -17.5%).

Furthermore, we found that a substantial number of patients that had HgbA1C in the diabetic range did not have appropriate documentation of this finding in the discharge summary (43 patients, 16.4%). Post-intervention analyses of 182 patients that were admitted to the same unit from November 1, 2018 to February 28, 2019 and had multiple high BGMs demonstrated 30 patients (16.48%) to not have a HgbA1C level checked. Post-intervention data demonstrates the number of patients that had documentation of DM with a HgbA1C > 6.5 decreased to 18 out of 182 (9.8%).

Conclusions: Our results demonstrated an increase in documentation of DM in patients where HgbA1C was tested and found to be in the diabetic range. However, we found that education alone was insufficient in increasing the number of patients being tested for HgbA1C despite having repeated blood glucose levels more than 200mg/dl. These findings show that while education is an important tool in addressing this problem, there is a need for a more robust system to alert providers to the need for HgbA1C testing in order to ensure better compliance to testing.

3

Resident attitudes and practice towards ordering laboratory tests at a teaching hospital

Rajat Thawani MBBS, Steve Obanor MBBS, Susan Lin DO, Joseph Gotesman MD, Aviva Tobin-Hess MD, Lana Glantz MD, Lawrence Wolf MD, Melvyn Hecht MD

Objective: Healthcare costs in the United States are increasing, which is a cause of concern to patients, governments, health economists, and medical professionals around the world. The United States has the highest health care expenses, with health care expenditures in 2015 approaching 18% of gross domestic product. High-value, cost-conscious care aims to assess the benefits, harms and costs of interventions, and subsequently offer care that adds value. With the advances in medicine, reducing health care costs have been challenging. However, an increase in costs is associated with inaccessibility to healthcare and difficult sustainability. Many interventions have been targeted towards physicians as a mean to reduce health care waste while maintaining quality care. Studies have shown that laboratory testing is overused, and is known to add a considerable burden to healthcare costs, without adding too much value. Apart from the cost of the test, they increase personnel workload, can cause iatrogenic anemia, lead to further testing for spurious testing, further adding to costs, and result in decreased patient satisfaction.

Residents are front line in delivering health care and an intervention at their stage would be more effective, and early in their career would help them carry the principle throughout their career, and transmit to future generation of doctors when they become leaders in healthcare.

Our study is the first step in a long-term implementation plan for resident education and intervention to reduce ordering daily laboratory tests at the hospital.

Methods: We conducted an online survey that was circulated to residents and fellows asking about their lab ordering practice - frequency of ordering unnecessary laboratory tests, and reasoning behind it. We also asked them if they believe if the decreasing laboratory burden would improve resident wellness.

Results: We had 139 responses, out of which 66 (47%) were from the Department of Internal Medicine. 115 (82.7%) believed that they had definitely ordered unnecessary tests, out of which 82 thought that they ordered these tests daily or multiple times a week. Surprisingly, only 22.3% (31/139) felt that they had some to total control on ordering these laboratory tests. When further questioned about the reasoning behind ordering these tests, 68.3% (95/139) believed that it was out of habit and institutional culture, and 49.6% (69/139) were worried about uncomfortable interaction with the attending, and 46.8% (65/139) were uncomfortable when they did not know the numbers. Irrespective of their practices, 81.3% believed that unnecessary tests add to their workload, and 94.2% believed that ordering only necessary laboratory tests would be a better use of their time.

Conclusions: Residents are aware that they order unnecessary laboratory tests multiple times a week. The most common reasons include culture, lack of education about utilization, and fear of uncomfortable interaction with the attending. Excess, irresponsible laboratory test ordering increases workload as per residents, and ordering only necessary tests would be a better use of their

time. We plan to take these reasons into account and educate residents, follow a bottom up approach in education, and measure the change made in the number of laboratory tests ordered.

4

Predictors of All Cause Late Post-Operative Bleeding in Patient with Left Ventricular Assist Device

Natalie Elkayam MD, Nana Gegechkori MD, Aryeh Bernstein MD, William Solomon MD

Background: Patients with implanted left ventricular assist device (LVAD) have been shown in multiple studies to have significantly increased bleeding rates, and yet independent risk factors for such complication remain poorly characterized. The objective of our study was to assess factors associated with increased bleeding risks after LVAD implantation.

Methods: The case-control study was a retrospective electronic medical chart review for all adult patients above age 18 who had the LVAD implanted at Maimonides Medical Center from 2013-2018. The study comprised a follow up period of 24 months after the LVAD implantation.

84 adult patients with implanted LVADs at Maimonides Medical Center were included in the study. The predictors among patients with any late postoperative bleeding (>7 days post-surgery) within study period were compared to those without any event of interest. The outcome measure was a composite variable reflecting any bleeding event

such as upper and lower gastrointestinal (GI) bleed, intracranial hemorrhage or hemorrhage in any other organ. Patients were considered to have GI bleed if they had one or more of the following symptoms: guaiac-positive stool with hemoglobin drop >2g/dL, hematemesis, melena, active bleeding or blood within the GI tract at the time of endoscopy or colonoscopy. Intracranial or other organ bleeding was defined as appropriate clinical presentation and findings on imaging with hemoglobin levels reduced by more than or equal to 2 g/dl with no alternative explanation for anemia. Logistic regression was used to create a multivariable model to identify predictors associated with increased risk of all cause bleeding within 24 months after LVAD implantation.

Results: The study population consisted of 43 cases and 41 controls. Baseline characteristics were similar in both groups. A total of 43 (51%) patients had at least 1 episode of any type of bleed within study period.

Multivariable analyses showed that blood urea nitrogen (BUN) >20 mg/dL before LVAD implantation and Creatinine >1.2 mg/dL at the time of bleeding were significantly associated with all cause bleeding risk within 24 months after surgery with odds ratio (OR): 4.46, 95% confidence interval (CI): 1.78 to 11.15 and OR 3.55, 95% CI 1.13 to 11.15 respectively.

Conclusions: Perioperative BUN >20 mg/dL ($p=0.001$) and postoperative Creatinine >1.2 mg/dL ($p=0.03$) are associated with higher incidence of all cause bleeding within 24 months after surgery among patients with LVAD. To

improve outcomes, more studies are required in order to evaluate other contributing factors leading to increased bleeding events in these group of patients.

5

Chronic Colchicine Toxicity in the context of Cyclosporine use in a Renal Transplanted Patient - Report of a recovery case

Claudia Martina De Araujo Duarte MD, Bruno De Brito Gomes MD, Varun Tej Gonuguntla MD, Moaz Zia MD, Benjamin Weindorf MD, Lawrence Wolf MD

Background: Colchicine is a medication well known to be used in the management of common diseases as gout and arthritis. However, inappropriate doses or drug interactions can lead to Colchicine Toxicity (CT), a life-threatening condition. Cases of CT have been reported in cyclosporine-treated patients - as cyclosporine inhibits hepatic metabolism and renal excretion of colchicine. The poisoning generally presents with three phases: the initial one is characterized by gastrointestinal irritation and usually persists for at least 24 hours; the second, and most dangerous, is characterized by widespread organ failure; the third phase usually starts after day 7, when there is resolution of organ failure, rebound leukocytosis and alopecia - only seen in patients who recover. Although acute CT is well described, case reports of multi-system involvement with well differentiated progression through all phases are

still rare in the literature. We report a case of chronic colchicine toxicity in the setting of cyclosporine use with multi-organ involvement that progressed through the three stages, with full recovery.

Case: 56-year-old woman, renal transplanted on cyclosporine, presented for watery diarrhea and vomiting for one week. She was inadvertently taking colchicine (1.2mg/ day) for 2 weeks. On admission was found to have a profound neutropenia, thrombocytopenia, thyroid dysfunction, rhabdomyolysis and progressive liver and renal failure. Liver failure etiology work up was negative for hepatitis, CMV infection, biliary pathology or malignancy. Once colchicine was discontinued, and supportive therapy with N-acetylcysteine and Neupogen provided, she started improving. During fourth day of admission, she developed an asymmetric ascending bilateral lower extremity weakness. Work up for other causes of myopathy included brain and spine magnetic resonance, which did not reveal findings consistent with her physical examination. Lumbar puncture was unremarkable. Electromyography was compatible with a myopathic process and excluded demyelinating conditions. On the fourteenth day, while recovering from weakness, a rebound leukocytosis and alopecia were noted.

Discussion: Although a safe medication, colchicine has a low threshold for toxicity given its narrow therapeutic index. This case reinforces the need for extra vigilance in monitoring colchicine therapy despite the dose - especially in transplanted patients with specific attention to

drug interactions. A recent cohort study proved that inappropriate colchicine dosing occurred more frequently than expected and late-onset CT may have contributed to one-third of the deaths in patients who were taking colchicine. Recognizing the case during its initial phase is crucial for a good outcome. However, the vague nature of presenting symptoms makes the diagnosis a challenge. Therefore, it is important to be aware of its manifestation in order to prevent patients to progress into multi-organ failure and death. When suspected, a detailed review of the patient's medications is warranted.

6 Diagnosis of Sturge-Weber Syndrome in Adulthood

Natalie Sun BS, Brian Wolf MD, Angelica Fernandes MD, Claudia Martina De Araujo Duarte MD, Mariya Astashkevich MD

Background: Sturge-Weber syndrome (SWS) is a sporadic congenital neurocutaneous syndrome characterized by capillary-venous malformations of the brain and eyes. It affects multiple systems with clinical manifestations including, but not limited to, facial vascular nevus (port-wine stain), seizures and glaucoma.

Case: A 55-year-old male with a port-wine stain (PWS) affecting the right V1 and V2 dermatomes was brought to the ED due to two episodes of seizures. He had a 6-month history of blurry vision and one-week history of worsening headache. The patient had no previous history of seizures,

neurological deficits or ocular complaints. His past medical history was significant for gastric large B-cell lymphoma (for which he underwent resection and chemotherapy 5 years ago), diabetes mellitus type 2 and hypertension. At presentation, neurological exam revealed left homonymous hemianopsia and decreased attention span but no focal deficits, weakness or paresis. The patient was hypertensive (BP-180/109 mmHg). Initial laboratory testing revealed random blood glucose of 164 mg/dL, but no other metabolic derangements. A non-contrast CT scan of the head showed no abnormalities. Electroencephalogram showed slow waves in the right temporal region, and a contrast-enhanced MRI revealed leptomeningeal enhancement in the right hemisphere and enlargement of the right choroid plexus, consistent with neuroimaging findings classic of SWS. Despite his prominent facial nevus, this was the first time the patient learned about his diagnosis. He reported no history of developmental delay, and had no evidence of learning disability or cognitive deficits. He was independent in his activities of daily living and was an immigrant, employed as an Uber driver.

Discussion: SWS with intracranial involvement usually manifests as seizures, with most cases presenting in early infancy, although a handful of cases have been reported presenting in adulthood. A study of 52 adults with SWS found that the age of onset varied from birth to 41 years. SWS should be considered in any patient with classic port-wine stain, and suspicion for intracranial involvement should be elevated in those with vascular nevus involving the V1 distribution. In adults, the presenting symptom may not always be seizures, but may include more insidious changes in vision,

or headaches. Furthermore, normal CT findings should not preclude contrast-enhanced MRI to confirm intracranial involvement of SWS. Early diagnosis in these cases is crucial as it can result in appropriate medical prophylaxis and may reduce the risk of cerebrovascular events.

7

Non-Bacterial Thrombotic Endocarditis: Pancreatic Cancer Masquerading as Infective Endocarditis

Gurchetan Randhawa MD, Awais Aslam MD, Maria J. Suarez MD, Margaret Kuhn Basti MD, Yu Shia Lin MD

Abstract: Non-bacterial thrombotic endocarditis (NBTE) is a rare syndrome that often presents similarly to infective endocarditis (IE). It is caused by the presence of a hypercoagulable state, which is often the sequelae of an underlying malignancy or autoimmune condition, predisposing to thrombus formation on heart valves. Most cases of NBTE are discovered postmortem. We present a case of a 67-year-old male with new-onset of cerebral infarcts and subsequent pulmonary emboli, who had ante mortem diagnosis of NBTE secondary to a metastatic pancreatic cancer.

Case: A 67-year-old male was brought in to the emergency department for vision loss followed by an altered mental status. He is an active smoker and cocaine user with a history of hypertension, type II diabetes mellitus, chronic kidney disease,

anemia, and bilateral lower extremity deep venous thrombosis. As per patient's family, he lost 15 pounds within 2 months period and no fever prior to admission. On admission, he was found to be febrile and confused. His neurologic examination demonstrated anisocoria with unresponsive pupils. There were no cardiac murmurs. A magnetic resonance imaging study of the head indicated bilateral thalamic, left midbrain, pons, and bilateral cerebellar infarcts with an associated mass effect. A transesophageal echocardiogram revealed multiple echogenic densities; approximately 0.6 cm involving both the anterior and posterior mitral leaflets. The patient was started on broad-spectrum antibiotics for suspected IE.

Multiple negative blood cultures, persistent fever despite antibiotics, and a history of weight loss raised the suspicion of NBTE. Computerized tomography of chest, abdomen, and pelvis was obtained; revealing bilateral pulmonary emboli with diffuse metastatic disease found throughout the liver and a heterogeneous mass with areas of necrosis at the distal body/tail of the pancreas, consistent with a metastatic pancreatic carcinoma. Antibiotics were discontinued.

Discussion: NBTE and IE are difficult to distinguish; however, there are several differences between the two conditions. In NBTE, patients are less likely to have fever, leukocytosis, or heart murmur, and vegetations are typically smaller than 1 cm. Unlike IE, valvular abscesses and ruptures are uncommon. Recurrent emboli are considered a hallmark feature of NBTE, occurring in up to 50% of patients. However, fever with leukocytosis after embolic complications make the diagnosis of NBTE

challenging, as in our patient. Antibiotics remain the standard treatment for IE, whereas treatment of the underlying disease and anticoagulation with unfractionated heparin is the treatment of choice for NBTE. In summary, NBTE is a rare, devastating syndrome that is clinically complicated to distinguish from IE. Early diagnosis relies on a strong clinical suspicion. Clinicians should include NBTE in differential diagnoses in patients with culture negative endocarditis and multiple embolic complications that will allow the clinicians to further investigate predisposing condition for NBTE in a timely manner.

8 Brodie's Abscess of the Femur mimicking Septic arthritis of Knee

Orel Shuker MD, Monica Ghitan MD, Edward K. Chapnick MD, Yu Shia Lin MD

Introduction: Brodie's abscess, a subtype of subacute osteomyelitis, is a bone abscess described as a localized purulent collection with a sclerotic wall. "Subacute" refers to a partially treated or previously undiagnosed infectious process in the bone. The underlying process develops due to a combination of host resistance and low virulence of the infective organisms, often modified with the use of antibiotics. The penumbra sign on magnetic resonance imaging (MRI) suggests the diagnosis of Brodie's abscess. We report a patient with Brodie's abscess caused by anaerobic organisms, *Prevotella intermedia* and *Fusobacterium nucleatum*, accompanied by

adjacent acute osteomyelitis in the femur of an otherwise healthy 47-year old man.

Case: A 47-year old man presented to the hospital with intermittent fever and a painful erythematous rash over the lateral aspect of the left thigh. He had a history of left knee pain for the past 4 months, which began after a motor vehicle accident. Clinical exam was significant for a 5x8cm erythematous, warm area over the lateral aspect of his left thigh, with associated mild tenderness, which may represent a hematoma from previous drainage site. Laboratory investigations revealed leukocyte count of 11×10^9 cells/uL and elevated inflammatory markers including C-reactive protein of 166 mg/dL. Blood and joint fluid cultures were negative. Initial management included an intraarticular cortisone injection, followed by washout of the left knee, and intravenous antibiotic therapy for presumptive septic knee arthritis. An MRI of the femur revealed an intraosseous Brodie's abscess in the distal femoral diaphysis with a penumbra sign, with extensive surrounding bone marrow edema. Incision and drainage and periosteal biopsy were performed. Cultures yielded *Prevotella intermedia* and *Fusobacterium nucleatum*. Histopathology revealed acute inflammatory exudate, fibrous and granulation tissue consistent with marked acute and chronic inflammation, and mostly necrotic bone marrow consistent with acute osteomyelitis. The patient was treated with a 6-week course of intravenous antibiotics with an excellent response.

Discussion: Brodie's abscess is most often reported in the metaphyseal region of the tibia, preceded by traumatic bone injuries, and in young

male patients, with *Staphylococcus aureus* as the most common causative organism. There is a paucity of literature describing *P. intermedia* and *F. nucleatum* osteomyelitis in long bones, especially in healthy adults. The route of infection was unclear in our patient, but most suggestive of a hematogenous spread. Our patient's atypical presentation of an uncommon infection posed a diagnostic challenge. Establishing the diagnosis of Brodie's abscess is based on clinical suspicion, imaging, and biopsy. To our knowledge, we report the first case of *P. intermedia* and *F. nucleatum* Brodie's abscess, localized to the diaphysis of the femur in a previously healthy adult. The presentation was that of septic arthritis. In a patient with presumed septic arthritis of the knee without significant findings in arthrocentesis, Brodie's abscess should be included as a differential diagnosis to ensure timely diagnostic testing and appropriate initiation of treatment.

9

Analysis of Clinical Utility of Renal Ultrasound in Patients Diagnosed with Hospital Acquired Acute Kidney Injury

Rajat Thawani, MBBS, Syed Atif Mustafa, MD, Varun Tej Gonuguntla, MD, Jason Kim, MD, Shaurya Sharma, MD, Susan Lin, DO, Sanwal Mehta, MBBS, Suhali Kundu, MD, Shiran Porat, MD, Iqra Aftab, MD, Meer Deen, MD, Lawrence Wolf, MD

Objective: Acute kidney injury (AKI) is common in adult hospitalized patients, with the incidence

reported as 7.2% in the US. While evaluation of the cause of AKI is often necessary, in hospitalized patients the causes of AKI are more likely to be pre-renal or intrinsic. We performed a retrospective analysis of patients who underwent renal sonography for the indication of hospital acquired AKI, and assessed the proportion of those patients who had a scan suggestive of hydronephrosis, as well as those who underwent an intervention to treat it.

Methods: In our retrospective observational study, we conducted a chart review of all adult patients at Maimonides Medical Center in the Department of Medicine in 2017 who underwent renal sonography with the indication of elevated BUN/Creatinine documented in the electronic health record. We excluded patients who were diagnosed with AKI at admission and any patient with relevant missing information. We collected the baseline clinical characteristics and analyzed the ultrasound report and any intervention performed based on that report.

Results: There were 625 patients in the study, of which only 45 (7.2%) had hydronephrosis, whereas most of them had increased echogenicity (87.8%). Other important findings included cortical thickening (21.4%) and atrophy (5%). Only 4 (0.16%) subsequently underwent any procedure to address the hydronephrosis.

Conclusions: In this study, only 4 out of 625 patients who underwent renal sonography for hospital acquired AKI had a result requiring an intervention. The utility of renal imaging in patients

with hospital acquired AKI admitted to a medicine service appears to be limited and the cost to detect one hydronephrosis which needed intervention was over \$70,000. The utility of renal sonography should be investigated thoroughly by a prospective randomized trial. Meanwhile, hospitals should study ordering patterns of renal sonography and consider implementing high value measures for appropriate ordering of this test.

10

Cause of Mortality in patients with Lung Cancer and Brain Metastasis

Rajat Thawani MBBS, Kareem Fakhoury MD, Kevin Becker MD

Objective: Lung cancer is the most common cause of cancer-related mortality and more than 155,000 deaths in the United States were expected from the disease in 2017. Most lung cancer deaths are associated with metastatic disease, and brain is the most common site of metastasis. Management of brain metastasis in lung cancer (BMLC) includes surgical resection, stereotactic surgery (SRS), whole brain radiation (WBRT), or systemic therapy. The choice of treatment is informed by tumor-related variables, as well as patient characteristics including age, performance status, and comorbidities. Historically, whole brain radiation therapy (WBRT) has been the treatment of choice and, de facto, is palliative in intent with median survivals in the range of 6 months. There is no consensus in management of patients who have brain metastasis along with systemic disease.

We aim to evaluate patients with brain metastasis in lung cancer for cause of death, to investigate whether patients died from CNS progression or systemic disease or other/undetermined causes. Our hypothesis is that most deaths in patients with brain metastasis in lung cancer are due to systemic disease, and less commonly due to CNS progression.

Methods: In this retrospective observational study, we did a chart review of all adult patients with non-small cell lung cancer and brain metastasis or leptomeningeal disease, who received treatment at Maimonides Cancer Center between 2010 and 2017. Patients with unavailable or incomplete medical records were excluded. Baseline characteristics, pathological factors of the tumor and cause of death were collected from the chart. The cause of death was categorized into systemic and brain causes, and difference in characteristics of patients and tumor were studied.

Results: A total of 132 patients were included and their charts were reviewed. Out of 132, 96 could have a clear cause of death categorized into systemic or brain causes, the rest were either mixed or uncategorized. We found that 24.2% patients died of brain metastasis, and related causes, whereas 48.4% died of systemic disease progression. There were no difference in the two groups in terms of age, gender, smoking status, ECOG, type of cancer, size of lung lesion, or number and size of brain lesion. Interestingly, the patients who died of systemic causes commonly had adrenal (12 vs 0) and liver (14 vs 3) metastasis, but this was not significant because of the small sample size.

Discussion: More patients died of systemic disease than brain metastasis, which suggests that systemic treatment should be emphasized and potentially toxic CNS treatment modalities which delay systemic therapy should be held. More research is required in order to answer this question with certainty, including prospective clinical trials.

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Lactobacillus: Friend or Foe

Anuoluwapo Shobayo MD, Chiemeziem Nwanyanwu MBBS, Yu Shia Lin MD

Objective: Lactobacillus are low virulence commensal organisms which are commonly found in the human oral cavity, gastrointestinal and genitourinary tracts. Although *Lactobacillus* bacteremia (LB) is rare, evidence aggregating from case reports has implicated LB in several medical conditions. As such, there is reason to suggest that the presence of these organisms in blood cultures may not be due to spurious contamination, but rather, indicative of clinically meaningful events capable of inducing serious illnesses. The purpose of this study is to characterize the risk factors, clinical significance and outcomes of patients with LB.

Methods: We retrospectively reviewed the medical records of patients presenting to a large urban teaching hospital between January 1, 2017 to December 31, 2018, who were found to have LB. Identified individuals were grouped into two mutually exclusive case categories: true LB cases or non-true cases (i.e., contamination). Individuals

with ≥ 1 positive blood culture who were started on appropriate antibiotics were considered true cases. Those with positive cultures not started on appropriate antibiotics were considered contaminants.

Results: A total of 14 patients were identified during our study period, with majority considered true LB cases [71.4%; n = 10]. These 14 individuals were mostly males [64.2%; n = 9] and reported no use of Lactobacilli probiotics [78.6%; n = 11] or antacids [57.1%; n = 8]. On average, true LB cases were older (mean [SD]): 80.1 [± 10.9] vs. 54.0 [± 19.1] years) and required longer hospitalization (38.5 [± 27.6] vs. 8.0 [± 6.2] days) compared to non-LB cases, respectively. Among the 10 true LB cases, the suspected source of infection included gastrointestinal system [50%; n = 5], infective endocarditis [10%; n = 1], genitourinary system [10%; n = 1]; and could not be determined in 3 [30%] cases. Concurrent infection with candida and gastrointestinal microbes were noted in four (40%) of the true LB cases, respectively. Overall, five cases of death were observed, with 4 [80%] occurring in true LB cases and one in a non-LB case.

Conclusion: LB should not be dismissed as contaminants particularly in atmost risk patients for LB, such as the elderly or immunocompromised individuals.

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Comparison of Sepsis Patients With and Without Procalcitonin Use

Ogochukwu Okoli MD, MPH, Edward Chapnick MD, Lin Yu Shia MD, Antonios Likourezos, MA, MPH

Objective: Procalcitonin is a useful biomarker for early diagnosis of sepsis in critically ill patients. However, published data on use of procalcitonin (ProCT) has been plagued with contradictory outcomes regarding its benefits in clinical decision making. Our study tries to explore ProCT utilization patterns in MMC and compare outcomes in septic patients with /without ProCT testing.

Methods: This is a retrospective study. Data generated via SCM including all patients with a diagnosis of sepsis, severe sepsis, and septic shock. We grouped the patients into two; patients with /without ProCT assay, and compared outcomes such as clinical disposition, mortality, antibiotic use, LOS, Total antibiotic doses between both groups. Inclusion/Exclusion Criteria: Adults >18ys, excluding Pregnant woman, immunocompromised, cancer patients. Sample size of 1,000 - 4500 from July 1, 2019 to June 30, 2020. Statistical Analyses. Done using SPSS.

Results: We collected data on 1157 patients from July to December 2019 who had a diagnosis of sepsis, severe sepsis and septic shock, of this 190 (16.4%) had ProCT ordered, out of the assays ordered, 133 (70%) were positive based on procalcitonin level >0.05. 74% of the males and 64% of females had positive results. Average age of patient was 72 years. Only 68% of the septic

patients who had ProCT ordered had a positive test. Comparing outcomes between positive and negative ProCT groups, the average LOS was 14.7 days versus 15.9 days for positive versus between negative results. Similarly, there was no significant difference in Total antibiotic (DOT) both groups with a mean DOT of 4 days (std dev of 4days). In terms of inpatient mortality comparing ProCT vs. non-ProCT groups, more patients who had procalcitonin tests expired (20%) compared to the non-ProCT group (15.8%). Most ProCT was ordered in general medical/ surgical floors (66%) followed by the ICU (16.2%) and least the ED including the observation unit (13%).

Discussion: In agreement to previous studies ProCT serves as a useful marker in diagnosis of pneumonia but not in other infections. In this study ProCT utilization was markedly low (16%) and was ordered almost exclusively in Pneumonia cases. Findings validates the possibility of sepsis regardless of negative results. Conversely, not all positive results necessarily confirm sepsis. The test is therefore neither perfectly sensitive nor specific and must be used in concert with other indicators. Despite FDA proposed algorithm for ProCT guided antibiotic therapy a lot of controversy still plagues its utility and impact on clinical outcomes. Inpatient mortality was slightly more with positive ProCT possibly depicting worse infection severity. This could also represent a sampling bias if sicker patients are more likely tested as suggested in a previous study. This is particularly true in our study where the average age is 72 years. Aging and presence of multiple

comorbidities often affect response to therapy and secondary outcomes of DOT and LOS.

Conclusion: Procalcitonin is a useful test especially with diagnostic uncertainty however its utility especially in antibiotic stewardship is still limited. In this study no significant difference was noted in LOS, DOT but mortality rate was higher with positive ProCT test. Multiple factors contribute to variable outcomes in mortality, LOS, DOT hence institutions should adapt ProCT guidelines / algorithms tailored to disease acuity and clinical setting.

13 Improvement of Timely Collection of Vancomycin Troughs

Mo Mai MD, Ogochukwu Okoli MBBS, Suhali Kundu MD, Nyein Chann Wai Lynn MBBS, Deborah Osafehinti MBChB, Moaz Zia MBBS, Moshe Miller MD, Antonios Likourezos MA, MPH, Melvyn Hecht MD

Objective: Vancomycin serum levels between 15-20 mg/L have been accepted as the therapeutic range for treatment of most infections. However, vancomycin trough (VT) concentrations over 12.1 mg/L have been associated with an increased risk of nephrotoxicity. Current guidelines recommend collection of vancomycin trough levels within 1-2 hours of the next dose. The aim of the study is to improve the timeliness of VT collection. This will improve the efficacy of vancomycin in patients

being treated for MRSA infections as well as reduce length of hospital stay.

Methods: The intervention, which will entail programming into our EMR an alert for the nurses to inform to them that a VT is due. The alert will be activated 1 hour before the trough, with two follow up alerts at 45 minutes and 30 minutes. Post intervention we will compare VT collection time data through SCM to determine if there was a difference before and after intervention, with the aim to have at least 50% of VT collection within 60 minutes prior to fourth dose or the next dose when dosed per level. Data analyses included frequency distributions. All Statistical Analyses were performed using SPSS.

Results: A total of 383 vancomycin troughs were ordered between August 2018 and December 2018. The mean time to collection was -0:16.41 minutes (SD ± 7:48:26), meaning that the trough was collected, on an average, 16 minutes prior to the order being placed by the physician. Only 19.3% of the collections happened between 0 minutes and 30 minutes, and 29.2% of the collections were performed between 0 and 60 minutes. The nurse survey results identified that nurse knowledge was not an issue, but the incorrect vancomycin trough collection was due to lack of direct communication.

Conclusion: Seventy one percent of the VT collections by nurses are done incorrectly. This is largely due to a lack of direct communication by the physicians with the nurses regarding the exact timing of VT collection. Our intervention is to

implement an alert system via the electronic medical system which informs the nurses that a VT is due for collection. The goal of our intervention is to have at least 50% of VT collected within 60 minutes prior to fourth dose or the next dose when dosed per level. By reducing VT collection errors, patient's length of hospital stay and adverse effects from vancomycin are reduced. In addition, the efficacy of vancomycin in patients being treated for MRSA infections and high-value quality care to our patients are improved.

14 Right ventricular thrombus masquerading as tumor

Sharad Oli MD, Swetha Musty MD, Resha Khanal MD, Chad Harris DO, Norbert Moskovits MD

Introduction: Right ventricular masses are less commonly encountered. We report a case of a young man with an unusually large and smooth-surfaced right ventricular mass consisting of organized thrombus with pulmonary embolization.

Case: A 36-year-old man presented to the emergency department with exertional dyspnea for 2 weeks. Dyspnea was associated with pleuritic chest pain, fever with chills and rigors, malaise, fatigue, dizziness and lightheadedness. Past medical history was significant for deep venous thrombosis, not on anticoagulation (non-compliant) with no known family history of coagulopathies. On presentation, the patient was afebrile with blood pressure 90/53 mmHg, heart rate 54 beats/min, respiratory rate 18 breaths/min, oxygen saturation

100% on 2 liters nasal cannula. He appeared alert and oriented with bilateral clear breath sounds, normal S1 and S2, no murmur or skin rash. Laboratory tests revealed WBC-13,700/uL, hemoglobin- 11.6 gm/dl, cardiac troponin- 0.01 ng/ml, and unremarkable coagulation profile. No significant findings were seen on chest radiograph. Electrocardiograph showed sinus rhythm with right bundle branch block. Bilateral pulmonary emboli and hypodense opacity in the right ventricle was evident on CT angiography. Transthoracic echocardiograph revealed a 4 cm x 2.8 cm right ventricular non-mobile mass attached to the interventricular septum with no definitive wall motion abnormalities. The tricuspid valve was normal in structure with mild tricuspid regurgitation and normal right atrial size.

The patient was started on heparin drip and was admitted to the cardiac care unit for further management. It was further decided to surgically remove the mass due to its large size and the uncertainty of its composition. The pathology report revealed organizing thrombus with negative immunohistochemical stains for calretinin and CD34. The patient improved significantly post-surgery and was discharged on oral anticoagulant. He refused further workup for hypercoagulability.

Discussion: There have been some cases where ventricular mass was reported, the most common being ventricular myxoma or thrombus. In our case, it was quite challenging to differentiate between tumor and thrombus as this young patient presented with an unusually large and smooth-surfaced right ventricular mass without definitive wall motion abnormality that was later found to be

organized thrombus (non-mobile thrombus; Type B). As right ventricular thrombus with pulmonary embolization can be life threatening, this case report emphasizes the high index of suspicion necessary for early diagnosis and prompt surgical management of the same.

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The Paradoxical Nature Of Refractory Secondary Immune Thrombocytopenia

Maham Akbar Waheed MD, Benjamin Weindorf MD

Introduction: Secondary immune thrombocytopenia (ITP) can often manifest early in multiple autoimmune diseases. Early in the treatment course of primary ITP, most patients respond dramatically to steroid therapy or intravenous immune globulin (IVIG). Here we present a case of a Hispanic female with treatment-resistant thrombocytopenia who was later diagnosed with systemic lupus erythematosus (SLE).

Case: A 76 year-old-woman with a history of atrial fibrillation, rheumatoid arthritis and recent diagnosis of monoclonal gammopathy of undetermined significance (MGUS), presented with worsening lethargy, confusion, low grade fevers, unintentional weight loss and rapid functional decline over the past five months. She was hemodynamically stable on admission, but was found to have a platelet count of 26,000/uL and a hemoglobin level of 9 g/dL. Due to a high clinical

suspicion for thrombotic thrombocytopenic purpura, further work up was carried out. Complete blood count demonstrated normocytic anemia with a mean corpuscular volume of 81.2 and an elevated reticulocyte count of 2.1%. However, no evidence of hemolysis was found based on labs and analysis of peripheral blood smear. Additionally, ADAMTS13 was found to be >10%. Autoimmune work up revealed positive homogenous antinuclear antibody (ANA) titer 1:320 as well as double stranded DNA antibody confirming a new diagnosis of SLE. Patient was then suspected to have SLE induced secondary ITP and was started on treatment with high dose IV corticosteroids. However, a paradoxical decrease in her platelet count was observed. Within a day of treatment, her platelet count dropped down to 2000/uL while receiving steroid monotherapy. She was then given three rounds of IVIG, which demonstrated minor insignificant rise in platelet counts. The patient continued to have low platelet counts of 2000-10000/uL without any signs of overt bleeding for the next 10 days. Rituximab therapy was then initiated for suspected SLE ITP, which after a refractory period of 7 days, showed a response with up trending platelet counts. Post treatment her platelet counts went up to 52000/uL and she was stable for discharge.

Discussion: Our case brings to light the potential treatment-refractory nature of secondary ITP, and in particular, the rarely observed paradoxical worsening of ITP on steroid monotherapy. In such cases the early initiation of rituximab is of utmost importance in order to facilitate an effective increase in platelet count.

Golimumab Induced Thyroiditis

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Background: Subacute thyroiditis is usually caused by an inflammation and a destruction of the thyroid cells, leading to hyperthyroidism due to leakage of thyroid hormones, followed by possible hypothyroidism and/or full recovery of thyroid function. This is a case report describing a rare occurrence of drug-induced thyroiditis, secondary to golimumab.

Case: A 79-year-old female with history of hypertension, hyperlipidemia, dementia and Rheumatoid Arthritis (RA) was brought to the ER for worsening mental status changes and abnormal behavior including visual hallucinating and severe insomnia.

Initial ER evaluation showed a urinary tract infection for which antibiotic therapy was initiated. Dementia workup was also performed including a negative head CT, nonreactive RPR, and borderline low vitamin B12 level. Thyroid Function Tests (TFTs) obtained were abnormal with low TSH 0.2mIU/L, elevated serum FT4 of 1.72ng/ml (n=0.58-1.64ng/ml) and elevated serum FT3 4.38pg/ml (n=2.5-3.9pg/ml), suggestive of hyperthyroidism. She has no symptoms of excessive sweating, cold or heat intolerance, hyperdefecation, or weight or skin changes, but

reports intermittent palpitations. She denies any previous history of thyroid problems and had not taken any thyroid medication, amiodarone, biotin, or any new drug. She has no history of recent fever or respiratory infection. In addition to prednisone and methotrexate, her RA was treated with golimumab 50mg injection every 30 days, which she took 22 months prior to current presentation. Her daughter mentioned that the patient was diagnosed with borderline abnormal TFTs at the PCP office 6 months ago but no treatment was needed. Her baseline TFT were normal in 2015. She has family history of hypothyroidism of both of her daughter and sister. She denies smoking, alcohol, or any other recreational drug use. Her home medications include prednisone 5mg daily, methotrexate, folic acid, lisinopril, simvastatin, and golimumab injections. She does not appear clinically thyrotoxic, with no exophthalmos, thyroid tenderness, thyroid enlargement or thyroid nodules noted on physical examination. Her heart rate range was in the 80bpm.

Further laboratory analysis revealed normal TSI, TPO, and TgAb levels. The Thyroglobulin levels was very high at 2505ng/ml (n=1.6-59.9ng/ml). Her thyroid sonogram revealed bilateral thyroid nodules, largest at 1.9cm in the right mid pole. A 24-hr RAIU scan showed very low uptake (1.8%) consistent with thyroiditis (hyperthyroid phase).

The endocrinology team made the diagnosis of subacute thyroiditis and recommended no antithyroid medications therapy for hyperthyroidism. In addition, she did not warrant NSAIDs or a beta blocker as she was asymptomatic

with AMS changes being her only clinical manifestation of hyperthyroidism. In the absence of an autoimmune or an obvious viral process, her subacute thyroiditis was thought to be induced by golimumab use.

Discussion: Golimumab is a monoclonal antibody that binds specifically to Tumor Necrosis Factor (TNF) alpha and used in therapy of chronic inflammatory conditions such as rheumatoid arthritis. Few published case reports described subacute thyroiditis occurring in patients treated with anti-TNF medications, specifically etanercept and adalimumab, however our case is the first report of golimumab induce thyroiditis. Interestingly, when we researched and obtained the patient's medication history, we learned that the patient was previously treated with adalimumab (May 2017 to October 2017) and etanercept (November 2017 to January 2018) before starting golimumab in February 2018 for rheumatoid arthritis, however the discontinuation of both medications for almost two years prior to the occurrence of subacute thyroiditis make the association unlikely. Another relevant factor in our case was the concomitant therapy with Prednisone given for rheumatoid arthritis, probably attenuating the clinical thyrotoxic manifestation in this patient who presented with behavioral changes.

Conclusion: We describe the first case of likely golimumab induced subacute thyroiditis. We are suggesting that drug-induced subacute thyroiditis should be one of the differential diagnosis in patients presenting with hyperthyroidism or hypothyroidism while treated with golimumab.

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Acute Respiratory Distress Syndrome Requiring Extracorporeal Membrane Oxygenation as the Initial Presentation of Antineutrophil Cytoplasmic Antibody Positive Vasculitis

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Introduction: Acute respiratory distress syndrome (ARDS) is a life-threatening inflammatory state of lung injury that can require acute interventions including mechanical ventilation as well as emergent veno-venous extracorporeal membrane oxygenation (VV-ECMO) for management. Etiologies of ARDS are not clearly discernible in certain cases and can vary from sepsis, pneumonia, trauma and intoxication. Antinuclear cytoplasmic antibody (ANCA)-associated vasculitis (AAV) is a group of several conditions that can have pulmonary complications including ARDS.

Case: A 33-year-old man with no significant past medical history presented to the emergency department (ED) with a chief complaint significant for progressively worsening shortness of breath over 24 hours. He was a construction site worker and narrated that he would not wear a protective mask while being exposed to cement dust. He was brought to the hospital with concern for inhalation injury. At presentation, he was found to be in severe

respiratory distress requiring non-invasive ventilation, he remained hypercarbic and hypoxemic despite non-invasive ventilation and required intubation for severe hypoxic respiratory failure secondary to ARDS in the intensive care unit. Following intubation and mechanical ventilation, the patient remained hypoxemic and hypercarbic requiring emergent veno-venous extracorporeal membrane oxygenation (VV-ECMO). On admission patient was also found to have acute kidney injury, proteinuria, and anemia with hemolysis. The BUN/Cr of 61/2.8 with increased proteins in urine, of 30mg/dL, with hemoglobin and hematocrit of 6.1gm/dL and 19.1% respectively, LDH was elevated to 735 IU/L, with normal haptoglobin of 151 mg/dl and iron studies revealed an iron of 23 mcg/dl (low), ferritin 207.6 ng/ml (high), TIBC 177 mcg/dl (low) and transferrin 126.6 mg/dl (low); transferrin saturation was 12.9% suggestive for anemia of chronic disease/inflammation. Therefore, autoimmune etiologies for ARDS were considered. Patient underwent a renal biopsy, which revealed myeloperoxidase (MPO)-ANCA positive vasculitis.

Discussion: Pulmonary involvement in AAV is well documented in the literature but is variegated in its manifestation making it difficult to diagnose and treat. Microscopic polyangiitis (MPA) is characterized primarily by interstitial lung disease (ILD), while granulomatosis with polyangiitis (GPA) has pulmonary manifestations that include cavitary masses, nodules, and airway stenosis. Both MPA and GPA may present with alveolar hemorrhage syndrome. Of the mentioned pulmonary manifestations that occur in AAV, new

onset ARDS may be the primary and devastating presentation of undiagnosed AAV. This case is to highlight the importance of investigating rare vasculitides as the underlying cause of ARDS. Further, early intervention for ARDS is lifesaving and for our case immediate ECMO intervention was highly beneficial. ECMO served not only to drastically improve his respiratory function, but also served as a useful tool to stabilize the patient until a definitive diagnosis to the etiology of his ARDS could be established.

18 Amiodarone-Induced Thyrotoxicosis After Weight Loss Following Sleeve Gastrectomy

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Introduction: Bariatric surgeries have shown major health benefits improvement in co-morbidities such as HTN and DM. We are less familiar with how these surgeries affect the pharmacokinetics of drugs.

Case: Our patient is a 65-year-old man with a fib/v tach and no prior thyroid history. He was on amiodarone 200 mg daily since September 2016. He had sleeve gastrectomy in March 2019 at weight 380 lbs. By June 2019, weight was 278 lbs.

In June 2019, he had palpitations, diarrhea, and heat intolerance for one month. Labs showed: TSH <0.01 (0.4 – 4.5 MCIU/L), FT4 6.5 (0.8 – 1.8 NG/DL), and

TT3 309 (76 – 181 NG/DL). Other labs: TPO antibodies <1 IU/mL (<9 IU/mL) TSI <89 (<140% baseline). Thyroid sonogram was heterogeneous without nodule.

He started Methimazole (MMI) 20mg BID and Prednisone 40mg daily. In the next seven weeks, symptoms and TFTs improved. FT4 was 3.1 NG/DL, TT3 was 85 NG/DL, but TSH remained <0.01 MCIU/L. Because of the rapid improvement, he was felt to have type 2 AIT (destructive thyroiditis). MMI was quickly tapered. Prednisone was tapered to 30mg daily.

At week 8, he was hospitalized for septic shock from diverticulitis and perianal abscess. He also had leukopenia attributed to MMI and sepsis. MMI was stopped. Amiodarone was stopped by cardiology. TFTs during hospitalization improved on only steroids: TSH was 0.01 MCIU/ML, FT4 was 2.34 NG/DL, and TT3 was 0.56 NG/ML. He was discharged on Prednisone 30mg daily with plans to taper off steroids.

Discussion: Our patient is the second reported case of AIT after bariatric surgery-induced weight loss. Amiodarone is a highly lipophilic drug that accumulates in adipose tissue. Rapid weight loss may result in the release of large amounts of amiodarone into the circulation with resultant thyrotoxicosis. As clinicians, we should be aware that patients who undergo bariatric surgery are at risk for complications that are not only directly related to the operation but also related to rapid weight loss that affects how the body handles drugs.

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Coexistence of Medullary Thyroid Cancer with Graves Disease: A Case Report

Ogochukwu Okoli MD, MPH and Christine Resta MD

Introduction: Medullary thyroid cancer is rarely associated with graves disease. MTC is derived from C-cells from the thyroid gland rather than from follicular cells. Thyroid stimulating immunoglobulins (TSI), seen in graves disease therefore, should not influence development or growth of MTC.

Case: A 59 year old woman presented with enlarged thyroid, weight loss, and hot flushes. She had previously been treated for graves disease in 2013 but was lost to follow up.

On exam, she had a diffusely enlarged thyroid gland, without distinct nodule. She had brisk DTR's and mild tremor. Lab results confirmed hyperthyroidism: TSH <0.01 mIU/L (0.27 to 4.2) FT4 2.4 ng/dL (0.9 to 1.8) FT3 7.95 pg/mL (1.8 to 4.6). TSI was 307 % (<140%).

Thyroid ultrasound showed a few sub-centimeter nodules, and 2 clinically significant nodules on the right--1.5 x 1.2 x 1.4 cm, cystic with calcifications; and 1.3 x 0.7 x 1.2 cm hypoechoic. **I-123** thyroid uptake/scan showed 61% uptake and 2 right sided cold nodules. FNA biopsy showed medullary thyroid carcinoma (MTC) with staining positive for

calcitonin and negative for thyroglobulin. CT thyroid showed no adenopathy. Serum calcitonin was 71 pg/mL (<5), and CEA was elevated 5.4 ng/mL (<2.5). Work up was negative for pheochromocytoma and hyperparathyroidism.

After pretreatment with methimazole, she underwent total thyroidectomy with bilateral TE groove dissection. Surgical pathology confirmed MTC pT1b pN1a. She was started on levothyroxine therapy post operatively.

Discussion: There are multiple reports of thyroid carcinoma (papillary and follicular) in Graves disease, but rarely MTC. A recent systematic review reports only 21 total cases of MTC in patients with hyperthyroidism, of whom 15 had Graves disease. MTC is derived from C-cells from the thyroid gland rather than from follicular cells. TSI, therefore, should not influence development or growth of MTC. Coexistence of the two conditions is likely coincidental rather than causative.

Conclusion: Thyroid nodules in patients with Graves should be worked up as there is a possibility of co-existing thyroid carcinoma. This patient had hyperthyroidism with cold nodules on nuclear scan corresponding to sonographic nodules. Based on these results, she had biopsy leading to diagnosis of MTC. Follow up surgery lead to diagnosis of MTC at earlier stage and provided treatment for both conditions.

Pratibha Sharma MBBS and Carl F. Schiff MD

Introduction: Eosinophilic granulomatosis with polyangiitis (EGP) is characterized by asthma, nasal polyposis, rhinosinusitis, hypereosinophilia with organ infiltration, and necrotizing vasculitis. While systemic glucocorticoids form the cornerstone of treatment for EGP, anti-interleukin-5 monoclonal antibody like Mepolizumab offers a potential steroid-sparing therapeutic option for EGP. There is, however, a paucity of information regarding the effect of Mepolizumab in cases with cardiac involvement.

Case: A 39-year-old woman with history of asthma and Helicobacter pylori gastritis presented to the emergency department after passing out three separate times during the last 24 hours before presentation. Her last episode was witnessed by her husband when she passed out when she got up to go to the bathroom, falling backward and hitting her head on the wooden shelf on the way down. She was unresponsive for 3-5 minutes. There was no abnormal body movements or incontinence of urine or stool. She was reportedly confused for several minutes after regaining consciousness and complained of nausea and generalized fatigue. Review of systems was positive for cough, chest, back discomfort and skin rash. There was however no weakness, numbness, tingling, shortness of breath, palpitation, ocular pain, dry eyes, photophobia, dry mouth, oral ulcers or joint pain. In the ED, she had a temperature of 101.5° F, heart rate of 105 bpm and blood pressure of 88/54 mm of Hg. Physical examination was grossly normal

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Mepolizumab for eosinophilic myocarditis

except for a faint patch of erythema on her forehead and healed ulceration over the left ankle. Her blood work was significant for a white cell count of 12,900/ μ L with 73.5% of neutrophils and 11.1% of eosinophils. Her troponin was elevated to 9.51 with an elevated D -dimer of 991 ng/ml. Her EKG was suggestive of sinus tachycardia with no ST or T wave changes. A computed tomography angiogram of the chest showed pleural effusion and pulmonary edema with no focal consolidation or pulmonary embolus. Head CT was consistent with extensive pan-sinusitis with no other acute intracranial findings. Her cardiac MRI showed sub-endocardial enhancement with subsequent endomyocardial biopsy consistent with eosinophilic myocarditis. She was also found to have a thrombus within the left ventricle. She was treated with anticoagulation, high-dose methylprednisolone and then switched to oral prednisone and apixaban at discharge. She received 2 cycles of intravenous Cyclophosphamide and was then started on mepolizumab. She received three subcutaneous injections of 100 mg of mepolizumab for a total of 300 mg. Her subsequent cardiac MRI showed improved left ventricular function. Cardiac MRI also showed resolution of the pericardial effusion and the pleural effusions. There was extensive subendocardial and scattered foci of mid myocardial delayed enhancement in the base and mid cavity of the left ventricle compatible with residual fibrosis from prior myocarditis.

Discussion: Cardiac involvement is frequently seen in eosinophilic granulomatosis with polyangiitis, and can lead to a myriad of presentations like pericarditis, pericardial effusion, acute heart failure,

acute myocardial infarction, valvular heart disease, and myocarditis. Cardiac involvement contributes to significant morbidity and mortality in EGP. Systemic glucocorticoids form the cornerstone of treatment for EGP, however, most patients remain dependent on glucocorticoid therapy and relapses are common. The cytokine interleukin-5 regulates eosinophil proliferation, maturation, and differentiation and is present at increased levels in patients with EGP. Mepolizumab, an anti-interleukin-5 monoclonal antibody that binds to interleukin-5 and prevents its interaction with its receptor on the eosinophil surface, offers a potential therapeutic option for patients with EGP. Use of Mepolizumab in EGP as an add-on therapy to glucocorticoid treatment has previously been shown to result in more accrued weeks in remission, reductions in glucocorticoid use and reductions in relapse rate. However, there are only handful of case reports showing the effect of Mepolizumab in confirmed cases of eosinophilic myocarditis, and our case suggests its potential role as a steroid-sparing agent in these cases.

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Double Trouble: Immunotherapy-Related Autoimmune Hepatitis in Gastric Cancer with Metastatic Liver Lesions

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Introduction: Therapies involving antibodies against programmed cell death 1 (PD-1) and its ligand have presented robust responses in certain patient populations with advanced malignancy. The implementation and knowledge of immunotherapy in recent years for cancer treatment has grown exponentially. With this expansion, a better understanding of the immune dysregulation induced by these therapies must be realized. Immune-related adverse events frequently affect the skin, gastrointestinal tract and liver, endocrine organs, and lung. In a phase III trial of nivolumab for patients with gastric cancer, acute hepatitis seen in <1% of patients; and elevated AST and ALT was evaluated in 3% and 2% of patients, respectively.

Case: A 66-year-old female with a medical history of metastatic gastric cancer received five sessions of palliative pembrolizumab. Prior to her sixth session, she was transferred from the cancer center to the hospital for abnormal liver function tests. Her transaminases, normal prior to starting therapy, increased from an AST of 24 to 227 units/L, ALT of 26 to 611 units/L, alkaline phosphatase from 183 to 623 units/L, and total bilirubin from 0.6 to 0.8 mg/dL. The patient was started on prednisone orally 50 mg and on a N-acetylcysteine (NAC) protocol for suspected immunotherapy-related autoimmune hepatitis. Computed tomography of her chest, abdomen and pelvis revealed enlarging right hilar and subcarinal lymph nodes, along with a new ill-defined metastatic lesion in the right hepatic lobe. After treatment, liver enzymes lowered with an AST of 91 units/L, alkaline phosphatase of 488 units/L, and ALT of 351 units/L. Patient was discharged with mycophenolate mofetil 500 mg oral

tablet and prednisone 50 mg oral tablet for a three-week duration. The patient was evaluated one week after discharge by her oncologist and repeat liver enzymes showed an AST of 409 units/L, AlkP of 808 units/L, ALT of 971 units/L, and total bilirubin of 4.4 mg/dL. Patient was re-admitted to the hospital and started on prednisone 100 mg orally, mycophenolate 1000 mg BID and was restarted on a NAC protocol, along with ursodiol. Prior records obtained for further evaluation showed reactive hepatitis B core antibody one year prior to start of pembrolizumab; patient started on tenofovir because of high risk of reactivation while on immunotherapy. Liver biopsy was obtained. Magnetic resonance cholangiopancreatography (MRCP) performed and presented with a central mass in the right lobe of the liver; mass was associated with mild intrahepatic bile duct dilatation. Endoscopic retrograde cholangiopancreatography (ERCP) was executed with a sphincterotomy and stent placement. Over the course of hospitalization, her LFTs improved, but did not return to baseline.

Discussion: This case illustrates the multifactorial nature of the patient's hyperbilirubinemia and transaminitis in the setting of gastric cancer from drug-induced liver injury and intrahepatic obstruction due to progression with hepatic metastasis. Management of immune-related hepatitis must be optimized as the pervasiveness of immunotherapies in cancer treatment grows. Overall, a multidisciplinary team from oncologists to gastroenterologists remains crucial for appropriate care.

22

Myroides Bacteremia with aseptic meningitis/ Ventriculitis: A rare case presentation

Swetha Musty MBBS, Chad Harris DO, Kavita Sharma MD

Introduction: Myroides species, originally identified as Flavobacterium due to their unique fruit-like odor in the culture medium, is a gram-negative rod found ubiquitously in nature, isolated from both soil and water bodies. It is uncommon in the human microflora and so far not many cases of Myroides infection have been reported, with the majority of the cases seen in immunocompromised patients. The most common documented infections are soft tissue related, but a few cases of endocarditis, bacteremia, urinary tract infection, pneumonia, and one case of ventriculitis in an infant has been reported.

Case: Here, we present a case of a 52-year-old man with diabetes mellitus and end-stage renal disease on hemodialysis who came in with an oozing ulcer on dorsum of the right foot and altered mental status, followed by a witnessed seizure in the hospital. His blood tests were significant for leukocytosis of 12,500/ul with 85% neutrophils, mild anemia with a hemoglobin of 9gm/dl, and electrolyte abnormalities with hyperkalemia (6.9mmol/l) and elevated blood urea nitrogen (196mg/dl) and creatinine (11.6mg/dl), C-reactive protein (CRP) 21.16 mg/dl and erythrocyte sedimentation rate (ESR) 130mm/hr. Blood

cultures were positive for Myroides sps. Magnetic resonance imaging of the brain was significant for ventriculitis/meningitis. Initially, he was placed on empiric broad-spectrum antibiotics that were subsequently changed to levofloxacin and piperacillin-tazobactam. Inflammatory markers ESR and CRP showed improvement reflecting the positive antibiotic response. Cerebrospinal fluid (CSF) analysis showed lymphocyte predominance with elevated protein and elevated white count with negative CSF cultures, suggesting a partially treated bacterial ventriculitis or aseptic meningitis.

Discussion: Due to the rarity of Myroides bacteremia and ventriculitis, it is unclear if this bacterium has the propensity to cause lymphocytic ventriculitis or if the ventriculitis and bacteremia in this patient were unrelated. Only one case report has demonstrated its capability to cause ventriculitis, and it was in an infant. This case illustrates the unique nature of Myroides bacteria to cause bacteremia in immunocompromised patients and the need for further investigation into its possible ability to seed the CSF and cause ventriculitis.

23

Chronic eosinophilic leukemia presenting as chest pain and NSTEMI

Kevin R. Shieh MD PhD, Rajat Thawani MBBS, Ravikaran Patti MBBS, Shelly Brejt MD, Navjot Somal MD

Introduction: Chronic eosinophilic leukemia (CEL) is a subtype of the hypereosinophilic syndrome in which clonal hypereosinophilia or increased myeloblasts is present. Though symptoms are non-specific and may include tiredness and cough, the disease may occasionally present itself as myopericarditis with an elevated cardiac troponin level.

Case: A 67-year-old Polish man with past medical history significant for coronary artery disease and a STEMI with stent placement ten years ago, presented to the hospital with complaints of pleuritic chest pain, fever, and nausea. Initial laboratory tests showed WBC count of 18.5 K/ μ L and his chest X-ray revealed a right upper lobe lesion; thus, a diagnosis of pneumonia was made. ECG demonstrated diffuse S-T depressions, which were new compared to prior studies. Initial cardiac troponin I was elevated and increased further. A decreased ejection fraction of 36-40% was seen on echocardiogram, and cardiac catheterization showed double-vessel coronary artery disease without signs of acute ischemia. He was diagnosed with myopericarditis, which was treated with aspirin and clopidogrel.

Incidentally, blood work revealed eosinophilia of 31% on initial labs. Further history obtained from the patient was significant from chronic pruritus and nasal congestion. Eosinophilia persisted despite having steroids and exhibiting clinical improvement of his pneumonia. Flow cytometry of the peripheral blood confirmed eosinophilia. Bone marrow aspirate had a large number of eosinophils with hypogranular features, and bone marrow biopsy demonstrated hypercellular bone marrow

with 70% eosinophils. Fluorescent *in-situ* hybridization (FISH) showed a deletion at chromosome 4q12, resulting in the FIP1L1-PDGFR α fusion gene. He was diagnosed with chronic lymphocytic leukemia and was started on imatinib. Repeat FISH was negative for the FIP1L1-PDGFR α gene. He has been maintained on the same dose of imatinib without evidence of recurrence for two years.

Discussion: Chronic eosinophilic leukemia, a subtype of the hypereosinophilia syndrome, is characterized by the presence of clonal hypereosinophilia or increased myeloblasts. In rare occasions, patients with CEL can manifest as several cardiovascular complications, including acute coronary syndrome and pericarditis. The disease is often characterized by the presence of specific gene rearrangements, which are associated with sensitivity to tyrosine kinase inhibitors.

24

Aortic aneurysm with Salmonella Aortitis: A deadly combination

Sanchit Kundal MBBS, Kabu Chawla MD

Introduction: Infected aortic aneurysm is a lethal condition because of the increased probability of aortic dissection and rupture due to weakening of the aortic wall. The leading infectious causes are *Staphylococcus aureus* and *Salmonella* species. Symptoms are often absent or non-specific during the early stages, and a high index of suspicion is

essential to make the diagnosis. To our knowledge, only a few case reports of mycotic aneurysm causing emphysematous aortitis have been reported.

Case: A 83-year-old male with past medical history significant for heart failure with preserved ejection fraction, atrial fibrillation, hypertension, diabetes mellitus, hyperlipidemia, and thoracic aortic aneurysm presented to ER with dry cough and dyspnea for 2 days associated with progressively worsening back pain radiating to the upper back. Patient denied any fever, nausea, vomiting or diarrhea. Vitals were normal except fever of 101° F. Urine analysis showed numerous bacteria. Chest x-ray showed clear lung fields. Computed tomography of the chest showed gas in the wall of the aortic aneurysm. Blood Cultures grew *Salmonella* which was sensitive to Meropenem, Ceftriaxone and ciprofloxacin and urine cultures grew ESBL. The Patient was managed with Meropenem and analgesics for the back pain. He was eventually discharged home with outpatient IV Antibiotic therapy. Patient was however, readmitted the next day due to severe pulsatile back pain and unfortunately expired the next day, likely due to rupture of the aneurysm.

Discussion: Infected aortic aneurysms account for 0.7–2.6% of all aortic aneurysms. Infection begins in an existing aneurysm and extends to the vascular wall in the direction of blood flow. Infected aortic

aneurysms occur often in patients with a pathological condition associated with a high incidence of atheroma, such as hypertension and diabetes. *Salmonella enteritidis* is a self-limited condition; however 5% of cases can develop into bacteremia. Strong affinity of *Salmonella* towards an aneurysmal blood vessel wall causes it to undergo necrosis and allowing for adhesion of the bacteria or attachment of the embolus to the site, causing damage to the structure and resulting aneurysm. The complications of mycotic aneurysm caused by *Salmonella* are often fatal, including aneurysm rupture. If the mycotic aneurysm is not treated, the mortality rate is 16–44% which resonates with the outcome of our case. Treatment of patients with mycotic aneurysm caused by *Salmonella* includes antibiotic therapy and surgery.



RESIDENT ACHIEVEMENTS (2019-2020)



GRANTS

- ❖ Primary Palliative Care: Resident comfort and curriculum based training in palliative care medicine

Residents: Shaurya Sharma, Rajat Thawani, Swetha Musty, Racquel D'Ornellas, Christiana Atuaka, Kristal Pouching, Kiran Para

PI: James Wernz

Grant: Committee for Resident Research Grants (CRRG)

- ❖ MRSA decolonization

Residents: Orel Shuker, Swetha Musty

PI: Yu Shia Lin

Grant: Committee for Resident Research Grants (CRRG)

- ❖ Case of Stroke from Cerebral Vasculitis following Carfilzomib, Lenalidomide, and Dexamethasone Therapy in a Patient with Relapsing Multiple Myeloma

Authors: Deborah Osafehinti, Kaveh Zivari

Journal: Case reports in Hematology

PubMed ID: 31885953

- ❖ A Case of Warm Autoimmune Hemolytic Anemia and a Pulmonary Embolus in a Patient Treated with Triple Therapy

Authors: Gurchetan Randhawa, Chia-Yu Chiu, and Thanunthorn Suban Na Ayutthaya

Journal: Case Reports in Hematology

PubMed ID: 31534803

PUBLICATION

- ❖ Resolution of atrial-ventricular block secondary to Listeria monocytogenes with antimicrobials

Authors: Anuoluwapo Shobayo, Krishna Kommineni, Kavita Sharma

Journal: ID Cases

PubMed ID: 31692654

- ❖ The future of radiomics in lung cancer

Authors: Rajat Thawani, Syed Atif Mustafa

Journal: The Lancet

PubMed ID: N/A

- ❖ Acute Respiratory Distress Syndrome Requiring Extracorporeal Membrane

Oxygenation as the Initial Presentation of Anti-neutrophilic Cytoplasmic Auto-antibody Positive Vasculitis

Authors: Suhali Kundu, Shaurya Sharma, Ramandeep Minhas, Joshua Scheers-Masters, Paul C. Saunders

Journal: Cureus

PubMed ID: 31886071

CONFERENCE

Upcoming Presentations:

❖ A case of AKI with HBV associated IgA nephropathy

Residents: Nyein Chann Wai Lynn, Mo Mai

Senior author: Sheldon Greenberg

To be presented at: National Kidney Foundation Spring Clinical Meetings 2020

❖ Golimumab Induce Thyroiditis

Residents: Mo Mai, Nyein Chann Wai Lynn

Senior author: Jocelyne Karam

To be presented at: Endocrine Society ENDO 2020

❖ Response to Immune checkpoint inhibitor treatment in a mixed group of platinum sensitive and resistant cervical cancer patients

Resident: Kevin Shieh

PI: Yiqing Xu

To be presented at: Society of Gynecologic Oncology (SGO) Conference 2020

❖ Analysis of clinical utility of renal ultrasound in patients diagnosed with hospital acquired Acute Kidney Injury

Residents: Rajat Thawani, Shaurya Sharma, Susan Lin, Varun Tej Gonuguntla, Suhali Kundu, Sanwal Mehta, Iqra Aftab, Shiran Porat

PI: Lawrence Wolf

To be presented at: Society of Hospital Medicine (SHM), American College Of Physicians (ACP), 2020

❖ Chronic eosinophilic leukemia presenting as chest pain and NSTEMI

Residents: Kevin R. Shieh, Rajat Thawani

Senior author: Navjot Somal

To be presented at: American College Of Physicians (ACP), 2020

Past Presentations:

❖ Resident attitudes and practice towards ordering laboratory tests at a teaching hospital (AKA Reducing the number of laboratory tests – A Quality Improvement initiative towards high value cost-conscious care)

Residents: Rajat Thawani, Susan Lin, Joseph Gotesman, Aviva Tobin-Hess, Steve Obanor

PI: Melvyn Hecht

Presented at: APDIM Fall Meeting, 2019

❖ Interesting Case of Drug Induced Liver Injury Related to Khat

Resident: Kaveh Zivari

Senior authors: James Park

Presented at: American Journal of Gastroenterology (ACG), 2019

- ❖ An Interesting Report of Endoscopic Management of a Migrated Gastric Lap Band
Resident: Kaveh Zivari
Senior author: Dmitriy Khodorskiy
Presented at: American Journal of Gastroenterology (ACG), 2019
- ❖ Duodenal Leiomyosarcoma - A Rare Cause of Gastric Outlet Obstruction
Resident: Fidelis Okoli
Senior authors: Yuriy Tsirlin
Presented at: American Journal of Gastroenterology (ACG), 2019
- ❖ Esophagitis in Immunocompromised Patient From Strongyloides Reactivation
Resident: Kaveh Zivari
Senior author: Rabin Rahmani
Presented at: American Journal of Gastroenterology (ACG), 2019
- ❖ Impact of Patient's Weight on Performing Endoscopic Retrograde Cholangiopancreatography (ERCP) and Its Complications – A Retrospective, Single-Center Study
Residents: Kaveh Zivari, Varun tej Gonuguntla, Fidelis C. Okoli
PI: Kevin Tin
Presented at: Digestive Disease Week (DDW), 2019
- ❖ Eosinophilic granulomatosis with polyangiitis with cardiac involvement
Residents: Carolyn Bendor-Grynbaum
Senior author: Yizhak Kupfer
- ❖ Cardiac Arrest as the first clinical sign of sarcoidosis
Residents: Shaurya Sharma
Senior author: William Pascal
Presented at: CHEST Annual Meeting, 2019
- ❖ Aortic Dissection Masquerading as Mediastinal Mass
Residents: Carolyn Bendor-Grynbaum, Aruge Lutaf, Shyam Shankar, Shaurya Sharma
Senior author: Paul C. Saunders
Presented at: CHEST Annual Meeting, 2019
- ❖ Management of a patient with ARDS secondary to Influenza A with High Flow Nasal Cannula
Residents: Carolyn Bendor-Grynbaum, Shaurya Sharma
Senior author: William Pascal
Presented at: NY State Thoracic Society, Annual Assembly, 2019
- ❖ False Negative Serum Cryptococcal Antigen Lateral Flow Assay Test in a Patient with Disseminated Cryptococcal Disease
Residents: Shaurya Sharma
Senior author: Yizhak Kupfer
Presented at: American Thoracic Society Conference, 2019
- ❖ A Case of Severe Lactic Acidosis Due to Metformin Toxicity
Residents: Shaurya Sharma
Senior author: Yizhak Kupfer

- Presented at:** American Thoracic Society Conference, 2019
- ❖ Reverse Takotsubo Cardiomyopathy Due to Accidental Amphetamine Overdose
Residents: Suruchi Karnik, Chetana Pendkar, Angelica Fernandez
Senior author: Dr. Stephan Kamholz
Presented at: American Thoracic Society Conference, 2019
 - ❖ Septic Pulmonary Emboli Secondary to Klebsiella Liver Abscesses
Residents: Carolyn Bendor-Grynbaum, Shaurya Sharma, Junfei Hu
Senior author: William Pascal
Presented at: American Thoracic Society Conference, 2019
 - ❖ Osmotic Demyelination Syndrome in Hyponatremia: Can It Always Be Avoided?
Residents: Shaurya Sharma, Suruchi Karnik, Nyein Chann Wai Lynn, Aparna Tiwari
Senior author: Yizhak Kupfer
Presented at: Critical Care Congress, 2020
 - ❖ Non-Bacterial Thrombotic Endocarditis: Pancreatic Cancer Masquerading as Infective Endocarditis
Residents: Gurchetan Randhawa, Awais Aslam
Senior author: Yu Shia Lin
Presented at: NYACP 2020
 - ❖ Chronic Colchicine Toxicity in the context of Cyclosporine use in a Renal Transplanted Patient - Report of a recovery case
Residents: Claudia Martina De Araujo Duarte, Bruno De Brito Gomes, Varun Tej Gonuguntla
Senior author: Benjamin Weindorf
Presented at: NYACP 2020
 - ❖ A Rare Case of New Onset Ulcerative Colitis in a Nonagenarian
Residents: Emmanuel Emeasoba
Senior author: Dmitriy Khodorskiy
Presented at: NYACP 2020
 - ❖ Right ventricular thrombus masquerading as tumor
Residents: Sharad Oli, Swetha Musty, Resha Khanal, Chad Harris
Senior author: Norbert Moskovits MD
Presented at: NYACP 2020
 - ❖ Myroides bacteremia with meningitis/ventriculitis
Residents: Swetha Musty, Chad Harris, Sharad Oli
Senior author: Chanaka Seneviratne MD
Presented at: NYACP 2020
 - ❖ Double Trouble: Immunotherapy-Related Autoimmune Hepatitis in Gastric Cancer with Metastatic Liver Lesions
Residents: Brian Wolf, Ei Cho, Samantha Ehrlich, Christiana Atuaka
Senior author: Michael Marcelin MD
Presented at: NYACP 2020

- ❖ The Paradoxical Nature Of Refractory Secondary Immune Thrombocytopenia

Resident: Maham Waheed

Senior author: Benjamin Weindorf, M.D.

Presented at: NYACP 2020

- ❖ A predictors of all cause late post-operative bleeding in patients with left ventricular assist device

Residents: Natalie Elkayam, Nana Gegechkori, Aryeh Bernstein

Senior author: William Solomon

Presented at: NYACP 2020

- ❖ Analysis of Clinical Utility of Renal Ultrasound in Patients Diagnosed with Hospital Acquired Acute Kidney Injury

Residents: Rajat Thawani, Syed Atif Mustafa, Varun Tej Gonuguntla, Jason Kim, Shaurya Sharma, Susan Lin, Sanwal Mehta, Suhali Kundu, Shiran Porat, Iqra Aftab

Senior author: Lawrence Wolf

Presented at: NYACP 2020

- ❖ Resident attitudes and practice towards ordering laboratory tests at a teaching hospital

Residents: Rajat Thawani, Susan Lin, Steve Obanor, Susan Lin, Joseph Gotesman, Aviva Tobin-Hess

Senior author: Melvyn Hecht

Presented at: NYACP 2020



AWARDS/



1st prize in the Advocacy Category at NYACP 2020

Resident attitudes and practice towards ordering laboratory tests at a teaching hospital

Presenter: Rajat Thawani

PI: Melvyn Hecht, MD

2nd prize in the Resident/Fellow Clinical Vignette Category at NYACP 2020

Chronic Colchicine Toxicity in the context of Cyclosporine use in a Renal Transplanted Patient - Report of a recovery case

Presenter: Claudia Martina De Araujo Duarte

PI: Lawrence Wolf, MD

3rd prize in the Resident/Fellow Research Category at NYACP 2020

Predictors of All Cause Late Post-Operative Bleeding in Patient with Left Ventricular Assist Device

Presenter: Natalie Elkayam

PI: William Solomon, MD

