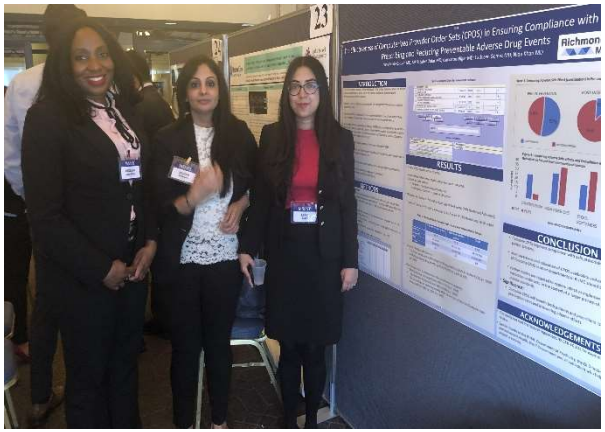
Medical Society of the State of New York



Resident, Fellow and Medical Student Poster Symposium

Abstract Book

May 20, 2022
MSSNY House of Delegates
Tarrytown, New York

MSSNY Resident, Fellow and Medical Student Poster Symposium
May 20, 2022
Tarrytown, New York

JUDGES
(as of date of printing)

Niraj Acharya, MD
Sana Bloch, MD
Stephen Coccaro, MD
Lisa Eng, DO
Melissa Grageda, MD
Edith Grannum, MD
Alan Kaell, MD
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Julie McNairn, MD
Lawrence Melniker, MD
Patricia Meyer, MD
Penny Stern, MD
Monica Sweeney, MD
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ABSTRACT REVIEWERS

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15th Annual MSSNY Resident/Fellow and Medical Student Poster Symposium
Submission Guidelines

MSSNY Medical Student and Resident/Fellow members are invited to submit abstracts that will be considered for poster presentation.

Please note that medical student membership requires enrollment in a LCME or COCA accredited school. However, non-LCME/COCA students doing rotations in New York hospitals may participate without membership.

Date: May 20, 2022
Time: 1:00 pm – 4:00 pm
Location: Westchester Marriott, 670 White Plains Road, Tarrytown, New York

The Poster Symposium takes place during the MSSNY House of Delegates Meeting[1]

1. **Submission Rules**
   a) You must be a MSSNY member in good standing to participate (see non-LCME/COCA student exception above). Co-authors are not required to be MSSNY members.
   b) Non-member first authors must apply for MSSNY membership. Medical student membership is free. First time resident/fellow membership is free. If you are a former MSSNY resident member, you will have to rejoin and pay current dues. Residents and students may join online at **www.mssny.org**.
   c) A $60 **non-refundable** symposium entry fee will be charged upon ACCEPTANCE of your abstract. This fee supports the symposium. **Check with your Program Director to determine if they will reimburse this fee.**
   d) Deadline for abstract submission is 4 pm on Monday, February 28, 2022
   e) We only guarantee scoring of the first 100 resident/fellow abstracts and the first 40 student abstracts received. Abstracts must be scored to be considered for poster presentation.
   f) The top 50 resident/fellow and top 20 medical student scores will be invited to present posters in May.
   g) Each applicant may submit only one abstract.
   h) Those submitting abstracts for consideration must be first authors of the research.
   i) All submissions must be original works of individuals actively engaged in residency or fellowship training or enrolled in medical school.
   j) Posters previously entered in a MSSNY symposium cannot be resubmitted.
   k) Entries may have been published in abstract form elsewhere but may not be taken from previously published papers. (Authors should also be aware that acceptance at this meeting may preclude an abstract's candidacy for submission elsewhere. It is the author's responsibility to check on this.)
   l) Authors of entries accepted for the symposium must be able to attend the meeting and be present to discuss their submissions.
   m) All entrants will be notified via e-mail regarding acceptance or rejection of their abstracts as soon as all abstracts have been scored. If accepted, you will be provided with a link to submit your $60 fee. **MAKE SURE TO PROVIDE A PREFERRED EMAIL ADDRESS THAT YOU LOOK AT! We will use only one email address per participant.**
   n) Questions? Email **krohrer@mssny.org** or call 516-488-6100 x 396.

[1] The House of Delegates is an annual meeting during which MSSNY officers, councilors, trustees and designated delegates from county medical societies and recognized specialty societies formulate MSSNY policy and elect officers. Accepted symposium participants who wish to are invited to attend all meeting activities. A Daily Guide will be posted on the MSSNY website **www.mssny.org** as the meeting approaches.

2. **Abstract Categories**
    a) **Resident/Fellows** may submit entries in one of two categories:
        1) ***Clinical Medicine*** includes basic science, quality improvement, health policy, clinical research, and medical education. **Entries in this category are highly encouraged.**
        2) ***Clinical Vignettes*** involve the presentation of one or more patient encounters that illuminate unique observations of a known disease or describe a novel disease process; use of a new procedure, treatment, or medication; medical mysteries; patient, family, and physician relationships; ethical issues. These are expected to include clinical patient information such as history, physical exam, and clinical data, as well as an analysis of how such observations might contribute to existing medical or scientific knowledge.
    b) **Medical students** may submit abstracts of their scientific research (biochemistry/cell biology, cancer biology, clinical outcomes and healthcare improvement, immunology/infectious disease/inflammation, neurobiology/neuroscience, public health and epidemiology, radiology/imaging, surgery/biomedical engineering); clinical vignettes; or projects based in the social sciences and humanities, including alternative methodologies.

3. **Abstract Criteria – PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY**
    a) Submit abstracts as email attachments in MS WORD, 10-point Arial font, to **krohrer@mssny.org**. **Deadline is Monday, February 28, 2022 at 4 pm.**
    b) The following information must appear at the top of the abstract:
        1. Category (Clinical Medicine or Vignette)
        2. The specialty under which it falls (e.g., Cardiology, Nephrology, Hematology, etc.)
        3. Title
        4. Authors' names
        5. Institution affiliations
        6. As appropriate:
            i. Medical students: entrant's medical school and graduation year
            ii. Residents/fellows: PG year, expected date of completion of training, and specialty
            iii. For everyone: address and email. **MAKE SURE TO PROVIDE A PREFERRED EMAIL ADDRESS THAT YOU LOOK AT! We will use only one email address per participant.**
    c) Once an abstract is submitted, it cannot be modified (i.e., an updated version will not be accepted later, even if before the submission deadline). **Please thoroughly proofread your abstract before submitting it.**
    d) Maximum length for **research** abstract is **250 words**. Maximum length for **vignette** abstract is **400 words**. Title, authors, and institution affiliations are not included in word count. Do not include captions from photos or graphs in abstract text.
    e) The body of the abstract should include, if applicable, background, methods, results and conclusions. Clinical medicine submissions should include clinical relevance.
    f) Define all abbreviations in the abstract that are exclusive to your institution and not commonly used (to the best of your judgment)
    g) Graphs, figures and photos should not be included in the submitted abstract, but should be incorporated into the poster for presentation at the meeting.
    h) Authors may submit only one entry to the 2022 symposium.
    i) Abstracts are scored on five criteria, each worth 0 to 5 points, for a maximum score of 25 points. The five criteria are:
        1. Importance: innovation, relevance, creativity, new or cutting-edge information, originality of approach/intervention, significance, or interest to the audience.
        2. A) Methodology: appropriateness of conceptual basis and design for the identified purpose of the study, appropriateness of data collection techniques, development stage (level of data collection completeness);

OR B) Lessons Learned: appropriateness of conceptual basis and design for the activity, extent to which the lessons learned merit the conclusions.

3. Clarity: development and communication of ideas and findings.
4. Conclusion consistent with data and/or observations. Potential pitfalls of methodology or interpretation addressed. Potential significance of experiments placed in proper perspective.
5. Abstract is in required form and organized, well written, concise, and readable.

j) MSSNY RFS members may review abstracts submitted by medical students. Reviewing students' abstracts does not disqualify residents/fellows from submitting their own abstracts.
k) Authors will be contacted via e-mail regarding **acceptance or denial** as soon as the abstract committee has made its selections.

4. Poster Presentation

a) Poster display boards will be provided.
b) Posters must fit within a board area that is approximately 6 feet wide by 5 feet high. (Posters can be smaller, but not larger.) A poster size that works well is 4 feet (48 inches) wide by 3 feet (36 inches) high.
c) Push pins will be provided.
d) Posters should include title, authors, institution affiliations, and a detailed description of methods and results. Graphs, tables, and photos are welcome on posters.
e) Poster text should be in 16-point font or larger.
f) No word count is assigned to poster text, but please limit narrative.
g) Posters will be displayed on boards in a gallery area, where entrants must be present to discuss their submissions.
h) Judges will visit and examine each presentation between 1:30 pm and approximately 3:30 pm. Authors must be available for questions during this time.
i) Between approximately 3:30 and 4:00 pm, participants are invited to circulate and visit each other's posters. You may also do so if you arrive early.
j) All participation costs are the responsibility of the entrants. If you leave your poster behind, MSSNY cannot guarantee its return.

5. Judging and Awards

a) Bring an 8 ½" x 11" copy of your poster and hand it in at the registration table – this will be a great aid to the judges as they conduct their final deliberations. **PLEASE WRITE YOUR LAST NAME IN THE UPPER RIGHT CORNER OF THIS COPY.**
b) A panel of poster competition judges will be selected by MSSNY prior to the meeting.
   1. Each judge will assess approximately eight to ten posters.
   2. Each contestant will be visited by at least one, but probably two or more judges.
   3. Judges will be wearing a ribbon on their nametag marked "JUDGE."
   4. Judges will be assigned posters as they arrive at the symposium. They do not all come at once, so the actual start time for each individual's judging will vary. We respectfully request your patience.
   5. Final judging will be done after the symposium. We regret that due to the exigencies of the meeting of which the symposium is a part, we cannot guarantee final results until later in the day or evening. Final results will be emailed to all participants as soon as possible.
c) Authors must be available for questions during the judging and are encouraged to prepare a 5–10-minute oral overview of their posters for the judges as they walk around.
d) Posters will be judged within their category and will be given a final grade, as follows:

NEW: 10 criteria, each worth up to 10 points. Highest score = 100
I. ORIGINALITY: How original is the concept presented in the poster? **OR**, how original is the new approach to an old problem?

2. ACCURACY: Are there any spelling errors? Is the format aligned? Is there anything missing?

3. VISUAL: How effective is the poster visually? Was there appropriate use of visual aids, graphs and/or charts to enhance understanding of the research?

4. SIGNIFICANCE: How significant are the poster's conclusions in increasing understanding of a disease process, or in improving the diagnosis or treatment of a disease state, or in disease prevention or health promotion?

5. PRESENTATION: How logical are the ideas presented in the poster? How interesting is the manner of presentation?

6. VALUE: How valuable is the poster overall in furthering viewers' understanding of the research subject? How valuable is each figure and graph in furthering viewers' understanding of the research subject?

7. METHODS: How suitable is the research design for the stated objectives, and how appropriate are any statistical techniques applied? **For case vignettes**, are sound scientific principles used in analysis/interpretation/discussion?

8. CLARITY: Is the data summation correct? Was the conclusion a clear representation of the research presented?

9. INTERVIEW: How knowledgeable and conversant is the presenting author with the research presented in the poster?

10. USE OF TIME: Did the presenter(s) keep their discussion to the designated time duration (5-10 minutes)?

e) **Residents/Fellows:** There will be up to three awards for each category: First Place, Second Place and Honorable Mention. Vignettes may have, in addition, a Third-Place category.

f) **Students:** There will be up to three awards in the student category: First Place, Second Place and Honorable Mention. The judges reserve the right, depending on submissions, to divide student posters into vignettes and clinical research, and award prizes accordingly.

g) Winners will receive an award certificate. We hope to be able to give First, Second and Third Place winners a monetary award. All poster contestants will receive a certificate of participation.

Please be aware that by attending MSSNY's Poster Symposium and/or MSSNY's House of Delegates meeting, you consent to your name and/or your likeness being used without compensation in all media, and you release MSSNY, its successors, assigns and licensees from any liability of any nature.

S U B M I S S I O N S

Medical Students

(Poster) #	FirstName	LastName	School	Title	E-Mail	Page
1.	Cody	Perskin	Tufts University, School of Medicine, MD Candidate 2022	Allogenic Blood Transfusion Predicts Poorer Quality and Outcomes Following Hip Fracture: An Assessment of Rick Factors and Propensity Matched Outcomes	Cody.r.perskin@gmail.com	13
2.	Leif	Knight	University of Rochester, School of Medicine and Dentistry, MD Candidate 2023	Surviving Medical School During a Pandemic: Experiences of New York Medical Students During the Height of SARS-CoV-2	Leanna_knight@urmc.rochester.edu	13
3.	Leah	Ashton	University at Buffalo, School of Medicine, MD Candidate 2022	Effect of UTI Education on Patient Understanding and Quality of Life	leahasht@buffalo.edu	14
4.	Alexa	Deemer	NYU Grossman School of Medicine, MD Candidate 2023	The Pericapsular Nerve Group (PENG) Block in the Management of Hip Fractures: A Safe and Effective Anesthetic Strategy	alexadeemer@gmail.com	14
5.	Naveed	Nikpour	Renaissance School of Medicine, Stony Brook University, MD Candidate 2025	Integration of Medicine and the Community: How the 1984 Family Doctor and Nurse Program in Cuba Transformed Health Care	Naveed.nikpour@stonybrookmedicine.edu	15
6.	Gowri	Yerramalli	Renaissance School of Medicine, MD Candidate 2025	The Effects of COVID-19 on Access to Healthcare Amongst Patients Participating in a Metabolic and Bariatric Surgery (MBS) Program	Gowri.yerramalli@stonbrookmedicine.edu	15
7.	Ali	Sadeghi	American University of Caribbean, MD Candidate 2023	Fragile X Associated Primary Ovarian Insufficiency (FXPOI)	alisadeghi@students.aucmed.edu	16
8.	Michael	Osei	Zucker School of Medicine at Hofstra/Northwell, Candidate 2024	Differences in AMA Medical Student Section Policy Proposals Over Time	Mosei2@pride.hofstra.edu	16
9.	Ashley	Force	Albert Einstein College of Medicine, MD Candidate 2023	Fixation of Proximal Tibia Fractures using an Intramedullary Tibial Nail	Ashley.force@einsteinmed.edu	17
10.	Tamana	Bismillah	St. George's University School of Medicine	Not All Patients Seeking Pain Medications are Addicts: A Near-Miss Diagnosis of Abscess Secondary to Epidural Injections in a Patient with Chronic Back Pain	tbismill@sgu.edu	17
11.	Michael	Brown	New York Medical College, MD Candidate 2024	Effects of Adenosine on Lipid Accumulation in a Human Hepatoma Cell Culture Model When Challenged with Excess Fatty Acid	Mbrown36@student.nymc.edu	18
12.	Alexandria	Naftchi	New York Medical College, School of Medicine, Candidate 2024	Thoracic White Cord Syndrome: A Case Report and Systematic Review	anaftchi@student.nymc.edu	18
13.	Nicholas	Mui	New York Medical College, School of Medicine, Candidate 2025	The Gut-Brain Connection: Inflammatory Bowel Disease Increases Risk of Acute Ischemic Stroke	nmui@student.nymc.edu	19
14.	Forouhideh	Peyvandi	New York Medical College, School of Medicine, Candidate 2023	Virtual Implicit Bias Training in the Preclinical Medical School Curriculum	fpeyvand@student.nymc.edu	19
15.	Ankita	Das	New York Medical College, School of Medicine, Candidate 2024	Craniotomy for Infratentorial Meningioma is Associated with Increased Complications and Longer Length of Stay	Adas3@student.nymc.edu	20
16.	Alis	Dicpinigaitis	New York Medical College, School of Medicine, Candidate 2023	Increased Incidence of Ruptured Cerebral Arteriovenous Malformations and Mortality in the United States: Unintended Consequences of the ARUBA Trial?	adicpini@student.nymc.edu	20
17.	Eris	Spirollari	New York Medical College, School of Medicine, Candidate 2024	Distinctive Characteristics of Thoracolumbar Junction Region Stenosis	espiroll@student.nymc.edu	21

Medical Students

(Poster) #	FirstName	LastName	School	Title	E-Mail	Page
18.	Lillian	Xie	New York Medical College, School of Medicine, Candidate 2024	Impact of Burn Injuries on Outcomes in Patients with Acute Ischemic Stroke – A Nationwide Propensity Score Analysis	lxie@student.nymc.edu	21
19.	Christopher	Markantonis	New York Medical College, School of Medicine, Candidate 2025	Utility of Intravenous Alteplase and Mechanical Thrombectomy in Central Retinal Arterial Occlusions – A Nationwide Analysis	cmarkant@student.nymc.edu	22

Residents/Fellows - Clinical Medicine

NO.	FirstName	LastName	Des	Title	E-Mail	Program	Page
20.	Aarti	Maharaj	MD	Trends and Outcomes of Extracorporeal Membrane Oxygenation for Acute Respiratory Distress Syndrome (Analysis of the National Inpatient Sample, 2010-2019)	amaharaj@maimonidesmed.org	PGY-2 Maimonides Medical Center, Internal Medicine	22
21.	Claudia	Duarte	MD	Vancomycin Given Appropriately in Patients with Neutropenic Fever	claudiaduartemd@gmail.com	PGY-3 Maimonides Medical Center, Internal Medicine	23
22.	Jason	Hourizadeh	DO	Clinical Utility of Emergency Use Baricitinib in Adult Patients with Respiratory Failure due to COVID-19: Real-world Experience in Two Ethnically-Diverse Community Hospitals	jhourizadeh@riversidehealth.org	PGY-1 St. Johns Riverside Hospital, Internal Medicine	23
23.	Phuong	Nguyen	MD	Severe COVID-19 Infection and Associated Laboratory Abnormalities and Perinatal Outcomes	lonoi92@gmail.com	PGY-3 Mount Sinai, Obstetrics and Gynecology	24
24.	Zunaira	Ayub	MD	Reducing Excessive Variability in Infant Sepsis Evaluation	zayub@rumcsi.org	PGY-3 Richmond University Medical Center, Pediatrics	24
25.	Linda	Camacho	MD	Associations Between BMI Status and Asthma Triggers for Hospitalized Children in an Urban and a Suburban Children's Hospital	Linda.camacho@stonybrookmedicine.edu	PGY-3 Stonybrook Children's Hospital, Pediatrics	25
26.	Russell	Himmelstein	MD	Maternal and Neonatal Risk Factors for Development of Neonatal Lenticular Striate Vasculopathy (LSV)	Rhimmelstein20@gmail.com	PGY-2 Stonybrook University Hospital, Pediatrics	25
27.	Jose	Dominguez	MD	Socioeconomic Characteristics of Pediatric Traumatic Brain Injury Patients	Jose.dominguez@wmchealth.org	PGY-5 Westchester Medical Center, Neurosurgery	26
28.	Soumya	Shivashankar	MD	Advance Directives (ADs) Can be Implemented in Patients with Heart Failure: A Quality Improvement (QI) Project	sshivashan@montefiore.org	PGY-3 Montefiore Medical Center, Internal Medicine	26
29.	Mariya	Zyablitskaya	MD	The Yield of Blood Cultures in Hospitalized Patients with Skin and Soft Tissue Infections (SSTI)	marisiyahu@yahoo.com	PGY-2 Maimonides Medical Center, Internal Medicine	27
30.	Mayuri	Mudgal	MD	Type 2 Diabetes Mellitus Makes Little Impact on Heart Failure Hospitalizations in Older Adults Across Geographical Regions in the US: National Inpatient Database Analysis	mayurimudgal@gmail.com	Fellow, Montefiore Medical Center, Geriatrics	27
31.	Alison	Wiles	MD	A Multimodal Pain Regimen Reduced Opiate Use and Disparities in Post-Operative Cesarean Section Patients	Alison.wiles@snch.org	PGY-3 Mount Sinai South Nassau, Obstetrics and Gynecology	28
32.	Alexandra	Vagasi	MD	Celiac Plexus Neurolysis for Patients with Peritoneal Carcinomatosis	Alexandra.vagasi@snch.org	PGY-1 Mount Sinai South Nassau, General Surgery	28
33.	Jillian	Ottombrino	MD	Improving Resident and Faculty Wellness by Development, Implementation and Evaluation of a Physician Wellness Curriculum	jottombrino@rumcsi.org	PGY-1 Richmond University Medical Center, Pediatrics	29

Residents/Fellows - Vignettes

	FirstName	LastName	Des	Vignette Spec	Title	E-Mail	Program	Page
34.	Jocelyn	McCullough	MD	Cardiology	Epsilon Waves and Preventing Sudden Cardiac Death	jmccullough@northwell.edu	PGY-2 Northwell Health at Mather Hospital, Internal Medicine	29
35.	Alma	Martini	MD	Cardiology	Pericarditis Related to COVID-19 mRNA Vaccination	alma.droubi.martini@gmail.com	PGY-2 Flushing Hospital Medical Center	30
36.	Alma	Martini	MD	Internal Medicine	Spinal Epidural Abscess due to Klebsiella Pbsumoniae	Alma.droubi.martini@gmail.com	PGY-2 Flushing Hospital	30
37.	Bala	Pushparaji	MBBS	Cardiology	Is Losing a Pregnancy Stressful Enough to Cause Takotsubo Cardiomyopathy?	bpushparaji@maimonides.med.org	PGY-2 Maimonides Medical Center	31
38.	Aneela	Arif	MD	Infectious Disease	A Problem Endemic to New York City Associated with a Bacterial Disease That is Not Reported Enough. A Case of Rat Bite Fever	aneelarif@gmail.com	PGY-2 Flushing Hospital Medical Center	31
39.	Marutha	Arulthasan	MD	Infectious Disease	Multiple Pulmonary Nodules in a Patient with Multiple Sclerosis	maruthaa@gmail.com	PGY-4 Maimonides Medical Center	32
40.	Brent	Boodhai	MD	Infectious Disease	Rapidly Growing Non-Tuberculous Mycobacterial Infection of a Prosthetic Hip Joint	bboodhai@maimonidesmed.org	PGY-2 Maimonides Medical Center	32
41.	Diego	Castellon	MD	Infectious Disease	Mycobacterium Tuberculosis Complex Bacteremia (Mycobacteremia) in a Patient with Newly Diagnosed Advanced HIV	dcastellon@maimonidesmed.org	PGY-4 Maimonides Medical Center	33
42.	Radhika	Mehta	MD	Hematology/ Infectious Disease	Case of Autoimmune Hemolytic Anemia Secondary to Acute COVID-19 Infection	radhikammehta@gmail.com	PGY-2 SUNY Upstate Medical University	33
43.	Hanish	Jain	MD	Internal Medicine, Infectious Diseases, Ophthalmology	Endogenous Endophthalmitis An Emergency	jainh@upstate.edu	PGY-2 SUNY Upstate Medical University	34
44.	Taikchan	Lildar	MD	Hematology & Oncology	COVID-19 Exacerbates Idiopathic Thrombocytopenia (ITP) in Patient with Underlying Rheumatoid Arthritis	tlildar@yahoo.com	PGY-1 Flushing Hospital Medical Center	34
45.	Hai	Yan	MD	Hematology (Critical Care)	Mimicry of Sepsis-Induced DIC: HLH Syndrome with High Fibrinogen Level	Hyan2.flushing@jhmc.org	PGY-2 Flushing Medical Center	35
46.	Mohammad	Raja	MD	Hematology	What Killed Mrs. Jane Doe? Overview to Vascular Microthrombotic Disease	Umar945@gmail.com	PGY-2 Jamaica Hospital Medical Center	35
47.	Pyae	Kyaw	MD	Hematology	May-Thurner Syndrome (MTS): A Rare	pkyaw@maimonidesmed.org	PGY-1 Maimonides Medical Center	36

	FirstName	LastName	Des	Vignette Spec	Title	E-Mail	Program	Page
48.	Lloyd	Muzangwa	MD	Internal Medicine	Catheter-Directed Thrombolysis: Treatment of Acute Portal Vein Thrombosis	lmuzangwa@northwell.edu	PGY-2 Northwell Health at Mather Hospital, Internal Medicine	36
49.	Raul	Lopez Fanas	MD	Internal Medicine	Massive Pericardial Effusion in a Young Female: Rare but Serious Initial Presentation of Lupus	rlopezfanas@montefiore.org	PGY-1 Montefiore Medical Center, Wakefield Campus	37
50.	Suhali	Kundu	MD	Internal Medicine	COVID-19 Pneumonia Reactivating Tuberculosis	sukundu@maimonidesmed.org	PGY-4 Maimonides Medical Center	37
51.	Joseph	You	MD	Internal Medicine/ Pulmonology	Management of a Cystic Fibrosis Exacerbation with Underlying Congenital Central Hypoventilation	Jyou2@northwell.edu	PGY-2 North Shore University Hospital/Long Island Jewish Hospital	38
52.	Stefanie	Cubelli	DO	Dermatology	A Case of Prurigo Pigmentosa after Religious Fasting	Cubelli90@gmail.com	PGY-4 Metropolitan Hospital Center/New York Medical College	38
53.	Adamu	Awak	MD	Emergency Medicine	Diagnosis of Retropharyngeal Calcific Tendinitis in the Emergency Room	Adamu.awak@gmail.com	PGY-2 New York Presbyterian Brooklyn Methodist	39
54.	Dean	Robosa	MD	Gastroenterology/Hematology	Zieve's Syndrome in a Patient with Alcoholic Liver Disease	robosad@nychhc.org	PGY-3 Metropolitan Hospital Center/New York Medical College	39
55.	Parvesh	Paul	MD	Geriatric Medicine	Bradycardia and Syncope from Synergistic Effect of Donepezil and Beta Blockers – A Serious, Yet Under-Recognized Drug-Drug Interaction: A Mini-Series	Parvesh_paul@yahoo.com	Fellow – Montefiore Medical Center	40
56.	Victor	Delgado-Lazo	MD	Oncology	Incidental Krukenberg Tumor During Caesarian Section	Victordelgadolazo21@gmail.com	PGY-2 Metropolitan Hospital Center/New York Medical College	40
57.	Patrick	Mooney	MD	Nephrology	Post-Obstructive Diuresis Complications: A Rare Cause of Nephrogenic Diabetes Insipidus	Mooneyp1991@gmail.com	PGY-1 Jamaica Hospital Medical Center	41
58.	Ricardo	Beltran-Araujo	MD	Neurology	Fruit Mimic Stroke, Susumber Intoxication	rbeltranar@montefiore.org	PGY-2 Montefiore Medical Center, Wakefield Hospital	41
59.	Hadley	Brighton	MD	Pediatrics	The Fever, The Labs, and The Images	Hmb9006@nyp.org	First Year Fellow, NY Presbyterian Komansky Children's Hospital, Pediatrics	42
60.	Ayce	Atalay	MD	Physical Medicine and Rehabilitation	Chorea-Hyperglycemia-Basal Ganglia Syndrome and a New Stroke	aatalay@montefiore.org	PGY-3 Montefiore Medical Center, Physical Medicine and Rehabilitation	42
61.	Neha	Sharma	MD	Pulmonology	E-Cigarettes: A Boon or a Bane?	nesharma@maimonidesmed.org	PGY-2 Maimonides Medical Center	43
62.	Aqsa	Ashraf	MD	Rheumatology	Diagnosing and Managing Clinically Silent Lupus Nephritis and ANCA-associated Vasculitis	Aashraf4@northwell.edu	PGY-2 Northwell Health at Mather Hospital, Internal Medicine	43

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					Overlap Syndrome: A Challenging Case			
63.	Ma Valdes	Bracamontes	MD	Rheumatology	When Knowledge Becomes Overwhelming, Go Back to the Basics	macarmenvb@hotmail.com	PGY-2 Jamaica Hospital Medical Center	44

POSTER # 1

Allogenic Blood Transfusion Predicts Poorer Quality and Outcomes Following Hip Fracture: An Assessment of Risk Factors and Propensity Matched Outcomes

Authors: Cody R Perskin BA,[1] Sanjit Konda MD,[1] Rown Parola MS,[1] Abhishek Ganta MD,[1] Philipp Leucht MD,[1] Kenneth A Egol MD[1]
Institution Affiliation: Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, New York, NY[1]
Entrant's Medical School: Enrolled at Tufts University School of Medicine, but research conducted at NYU Langone Orthopedic Hospital during a research fellowship.
Medical School Graduation Year: 2022

BACKGROUND: The purpose of this study is to identify risk factors and associated outcomes of blood transfusions in hip fracture patients.

METHODS: A trauma database from one medical center was queried for hip fracture patients from 2014 to 2020. Demographic, clinical, quality and cost data were obtained for each patient. A validated trauma risk score (STTGMA) was calculated for each patient from age, comorbidity, and acute injury status variables. Patients receiving blood transfusions during their hospitalization were identified. Multivariate logistic regression identified independent risk factors for transfusion during admission. Patients receiving transfusions were propensity matched at 1:1 ratio to patients not receiving a transfusion by STTGMA score. Comparative analyses of matched cohorts were performed.
Results 1,344 hip fracture patients (29.8% male and 70.2% female) with mean age 81 ± 10 years were identified. 37.1% of patients received a transfusion during their admission. Risk factors for transfusion included higher STTGMA scores (p=0.004), lower hemoglobin levels on admission (p<0.001), anticoagulation or antiplatelet use on admission (p=0.01) and fracture repair with a long cephalomedullary nail (p=0.004). Matched cohort outcomes demonstrated transfusions correlated with increased length of stay (8.5 vs 6.5 days, p<0.001), need for intensive care unit (24% vs 15%, p<0.001), and increased likelihood of any major medical complication (19% vs 9%; p<0.001) including sepsis or septic shock (4% vs 2%; p=0.009), pneumonia (7% vs 4%; p=0.050), and acute respiratory failure (7% vs 4%; p=0.04) for transfused patients relative to untransfused patients.

CONCLUSIONS: Need for blood transfusion is associated with poorer matched outcomes following hip fracture repair.

POSTER # 2

Surviving Medical School During a Pandemic: Experiences of New York Medical Students During the Height of SARS-CoV-2

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BACKGROUND: The COVID-19 pandemic dramatically altered the landscape of medical education. While patients overwhelmed hospital systems and lockdowns and social distancing recommendations took priority, medical education was pushed online. Early in 2020, New York State (NYS) was hit especially hard by covid-19 and the effects are still being felt today. Here, members of the Medical Society of the State of New York (MSSNY) present the analysis of a survey regarding the impact of the pandemic on students attending medical schools in New York state.
OBJECTIVE: This study sought to understand the pandemic impact on medical students' well-being and education.
METHODS: NYS medical students responded to a 6-question survey disseminated by MSSNY leadership during April and May 2020. Questions assessed changes in stress levels, academic performance, and board preparation efforts. Open-ended data was analyzed using a modified grounded theory approach.
RESULTS: 488 NYS students across 12 medical schools were included. Major themes include: standardized test related stressors (23%), study related changes (19%), education and training concerns (17%), financial stressors (12%), additional family obligations (12%), and COVID-19 fear (8%). Second year students reported more stress/ anxiety than other years 95.9% (*p*-value< 0.00001). Reported stress/ anxiety, effects on exam preparation, and anticipated academic impact varied by geographical location. Students closer to the pandemic center showed larger degrees of impact.
CONCLUSIONS: While all NY medical students were greatly affected, those closest to the pandemic center and closest to the STEP 1 exam were most impacted. Medical educators should consider the acute and lingering academic and psychological impact of the pandemic on this cohort. Lack of flexibility of the medical education system in time of crisis contributed to negative wellbeing. We may want to examine how the very pillars of education contribute to lifelong negative medical culture.

POSTER # 3

Effect of UTI Education on Patient Understanding and Quality of Life

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ABSTRACT: A urinary tract infection (UTI) is an infection of any part of the urinary tract, including the bladder, ureter, and kidneys, typically by uropathogenic bacteria. Approximately one third of women have a UTI by age 24. UTIs are the most common cause of outpatient infection, with a lifetime incidence of 50-60%. Recurrent urinary tract infections are 2 or more infections within 6 months or 3 or more infections within one year. Over 25% of college-age adults diagnosed with their first UTI, had recurrence within 6 months. Though there is such a heavy prevalence throughout our population, many patients are unaware of what a UTI is or ways to prevent them. Informational UTI pamphlets were created to provide a source of education on this common disease. This is a survey-based case series investigating the efficacy of UTI pamphlets on patient understanding and precaution techniques. The goal is to assess overall knowledge and prevention tools before and after receiving educational pamphlets, and what impact this has on UTI recurrence and patient quality of life. Preliminary data suggests patients are more informed on UTIs at follow up visits after receiving the educational pamphlet weeks prior.

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POSTER # 4

The Pericapsular Nerve Group (PENG) Block in the Management of Hip Fractures: A Safe and Effective Anesthetic Strategy

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BACKGROUND: The pericapsular nerve group (PENG) block is a regional hip analgesic that targets the articular branches of femoral nerve (FN) and accessory obturator nerve (AON). The purpose of this study was to examine the efficacy of PENG block in the management of hip fractures.

METHODS: Between November 2021 and January 2022, 26 patients presented to our institution for fixation of OTA/AO 31.A1-3 and 31.B1-3 hip fractures and underwent surgery under PENG block and sedation. A matched cohort of 26 general and 26 spinal anesthesia patients undergoing hip fracture fixation was used. Demographics, intraoperative characteristics, anesthesia complications, and hospital quality metrics were collected. Outcomes were compared using Chi-Square analysis for categorical variables and analysis of variance tests for numerical variables.

RESULTS: A total of 78 patients (26 each: general, spinal, PENG block) were identified. The cohorts differed in age, with the patients in the PENG cohort being older at time of injury than those in the general and spinal cohorts ($p<0.05$). Physiologic parameters during surgery were more stable in the PENG group ($p<0.05$). Length of hospital stay was shortest for patients in the PENG cohort, and at time of discharge, patients in the PENG cohort ambulated farther on average ($p<0.05$).

CONCLUSION: PENG block anesthesia is safe and effective for the treatment of all types of displaced hip fractures in the elderly. In addition, this block may allow hip fracture patients to have greater functional mobility at time of discharge and may decrease length of hospital stay for hip fracture patients.

POSTER # 5

Integration of Medicine and the Community: How the 1984 Family Doctor and Nurse Program in Cuba Transformed Health Care

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Addressing the crowd at the Lázaro Peña Theatre on February 24, 1984, Fidel Castro spoke highly of the pilot family medicine program in Lawton, a suburb in southern Havana. The Cuban revolutionary government that came to power in 1959 prioritized health care accessibility. Since then, the family doctor has played a central role within Cuban society. The 1984 *Programa del Médico y la Enfermera de la Familia* (Family Doctor and Nurse Program) cemented the position of family doctors as it aimed to guarantee all Cubans medical care.

From the depictions of the initial programs, the Cuban government portrayed the Cuban physician as a neighborly figure who, with great courage, would fight to deliver health care across Cuba. Likewise, *Medicina General Integral* served to reinforce the significance of the individual within Cuban medicine. However, starting in 1990, a period of economic hardship stressed the program. Nevertheless, the nature of the program permitted it to continue, as it depended on its local community connections. The notions of integration extended to the demographics of family doctors as they began to resemble the populations they served. Not only were physicians now physically a part of the community, but they also were demographically a part of the community.

Using oral histories and public depictions of family physicians, I argue that the Family Doctor and Nurse Program shows the immense benefit of a deeply integrated community-health system model. The Cuban family doctor program overcame both expected and unexpected obstacles to ensure all Cubans received medical care.

POSTER #6

The Effects of COVID-19 on Access to Healthcare Amongst Patients Participating in a Metabolic and Bariatric Surgery (MBS) Program.

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INTRODUCTION: Individuals with obesity, specifically in racial and ethnic minority groups, experience disproportionate access to healthcare and higher rates of chronic medical illnesses requiring consistent follow-up with healthcare providers. This study aims to investigate the effects of COVID-19 on access to healthcare, specifically ability to see a doctor, amongst patients participating in a metabolic and bariatric surgery (MBS) program during the COVID-19 pandemic.

METHODS: This prospective cohort study included 76 patients at a single MBS center. 47 participants self-identified as White and of non-Hispanic, Latinx or Spanish origin, 17 White and of Hispanic, Latinx or Spanish origin, 7 African American, 2 American Indian/Native Alaskan, 1 Hispanic, LatinX or of Spanish origin, 1 Asian and 1 of unknown family history. Participants consented electronically and completed self-report measures evaluating ability to ability to see a doctor and race and ethnicity. The sample included 80% females and 20% males. Average age of participants was 40.61 (SD = 14.14).

RESULTS: With regard to access to healthcare, 6.5% of all patients reported having difficulty in the ability to see a doctor. The relationship between self-identified race and ethnicity and ability to see a doctor ($X^2(5, N = 76) = 16.131$, $p = 0.006$) during the COVID-19 pandemic was statistically significant.

CONCLUSIONS: Results suggest a relationship between race and ethnicity and ability to see a doctor during the COVID-19 pandemic among patients presenting for bariatric surgery. Further investigation is needed with a larger, more diverse sample to elucidate the effects of COVID-19 on access to healthcare.

POSTER # 7

Fragile X Associated Primary Ovarian Insufficiency (FXPOI) Case Report

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ABSTRACT:
Primary ovarian insufficiency (POI) is a diagnosis for reproductive age women who present with irregular menstrual cycles combined with hypergonadotropic hypogonadism. The etiology of POI derives from a broad range of unknown causes; however, a portion are associated with specific genetic mutations. Abnormalities in the X-linked fragile X mental retardation 1 (FMR1) gene are associated with POI. Fragile X syndrome (FXS) results from a full mutation of the FMR1 gene. Fragile X associated disorders can be caused by partial changes, called premutations. These individuals do not have FXS but may experience fragile X associated disorders. Women with fragile X associated primary ovarian insufficiency (FXPOI) have a premutation in the FMR1 gene.

Here we exhibit the case of a young woman presenting to the outpatient clinic for suspicious blood in her stool who was unaware of her endocrine abnormalities. She had not seen a primary care physician for over 18 months and sought to establish care. Over the course of a year the patient had made multiple visitations to see endocrinologists and gynecology for her hypothyroidism and amenorrhea. Despite genetic testing revealing this patient carries the FMR1 premutation no provider established the diagnosis of FXPOI. While rare, providing a spotlight for this case demonstrates the necessity of coordinated care for patient's early understanding and providing them the autonomy to make informed decisions with their reproductive lives.

POSTER # 8

Differences in AMA Medical Student Section Policy Proposals Over Time

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BACKGROUND: Medical students have advocated for policy proposals through the AMA-Medical Student Section (MSS). We investigated trends in policies created by medical students to see how topics have changed over time.

METHODS: Two authors reviewed 2208 AMA MSS policy proposals submitted between 1999-2021 and categorized them based on keywords within the title and resolved clauses. In cases of disagreement, a third author settled disputes. Policies were categorized as related to Race, Gender Inequality, LGBTQIA+, Reproductive Health, Immigration, Socioeconomic Status, Medical Education, Pediatrics, AMA Infrastructure, or Other. The reported decisions for each policy proposal were stratified as positive, neutral, or negative. Statistical analysis was performed using IBM SPSS Statistics Version 28.

RESULTS: Linear regression revealed a positive correlation between policies proposed per year and time ($R^2 = 0.63$). A one-way ANOVA analysis comparing the number of policies proposed per year relating to Race, LGBTQIA+, Education, and AMA Infrastructure showed a statistically significant difference between the groups ($p < 0.0001$). A Chi-Square analysis was conducted on the decisions for these groups and found that the policy topic influenced the acceptance decision ($p < 0.05$), with policies related to Race having the highest percentage of positive outcomes (81%).

CONCLUSION: The results showed a consistent increase in policies proposed per year over the past two decades. Additionally, proposals related to previously underrepresented topics, including Race and LGBTQIA+, have received greater recognition within the AMA-MSS more recently, reflecting progressive shifts in policy. Future directions include correlating policies to changes in medical education and clinical outcomes.

POSTER # 9

Fixation of Proximal Tibia Fractures Using an Intramedullary Tibial Nail

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CLINICAL RELEVANCE: To determine whether immediate weight bearing after intramedullary (IM) fixation, with or without supplemental plate or screw fixation, of proximal third tibial fractures, results in a change in alignment prior to union.

METHODS: Retrospective chart review done at a level 1 trauma center. Thirty-five patients with 39 proximal tibia fractures, all treated with IM nailing with or without supplemental plate or screw fixation, all made weight-bearing as tolerated following surgery.

MAIN OUTCOME MEASUREMENTS: Change in medial proximal tibial angle (MPTA) and posterior proximal tibial angle (PPTA) from initial post-operative films to final follow up.

RESULTS: Mean follow up time was 20.2 months with minimum follow up of 5 months. Mean initial MPTA was 87.0 +/-2.53 degrees while mean initial PPTA was 79.6 +/- 3.50. Mean MPTA and PPTA at follow up was 87.0 +/- 3.23 degrees and 79.9 +/-3.83 degrees respectively. The mean change in MPTA was 0.048 +/- 2.8 degrees (P=0.92), and mean change in PPTA was 0.264 +/-3.67 degrees. 36 of 39 (92.3%) fractures had acceptable coronal plane alignment, with MPTA between 85 degrees and 90.0 degrees. 35 of 39 fractures (89.7%) had acceptable sagittal plane alignment with PPTA between 77.0 degrees and 84.0 degrees. No patients required reoperation for malalignment.

CONCLUSIONS: In patients with proximal tibial fractures, immediate weight bearing after IM nail fixation, with or without supplemental plate or screw fixation when indicated, leads to minimal change in final coronal or sagittal alignment, and appears to be well tolerated in most patients.

POSTER # 10

Not all patients seeking pain medications are addicts: a near-miss diagnosis of abscess secondary to epidural injections in a patient with chronic back pain

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INTRODUCTION: Treating patients with chronic pain is difficult due to the subjective nature of complaints. Patients with chronic pain are often stigmatized as complainers, malingerers, and drug-seekers. We present a patient with history of chronic pain admitted with severe, unrelenting back and hip pain despite medication management and multiple negative imaging studies. Due to continued leukocytosis and elevated inflammatory markers, extensive workup continued and eventually revealed a psoas abscess, a rare complication of epidural injection for chronic pain management.

CASE REPORT: A 76-year-old female presented with severe left hip and back pain. The patient reported chronic back pain, for which she was on Percocet. Two months prior, she had a kyphoplasty procedure at the T12 level for a compression fracture. She also had two epidural injections within the last month at the lower back. The patient was dismissed as pain medication-seeking as she was asking for IV opioids. However, her inflammatory markers were high with an ESR of 90mm/hr (normal: 0-30mm/hr) and C-Reactive protein of 20.2mg/dL (normal: <1mg/dL). By day 3, she continued complaining of severe pain and labs continued to show elevated inflammatory markers. Blood cultures from admission grew *S. epidermidis,* which was thought to be a contaminant. Repeat blood cultures on day 3, confirmed *S. epidermidis*. She was started on Vancomycin; source of infection was yet to be identified.

Over the next 2 weeks, X-ray and CT abdomen/pelvis and hip with contrast showed no gross lytic or blastic lesions, or effusions. She also reported 60 lbs weight loss. Bone scan revealed no bone metastases. Finally on day 18, an MRI of the lumbar spine with and without contrast showed discitis, osteomyelitis and a 2cm fluid collection in the right psoas muscle compatible with psoas abscess. Repeat CT abdomen/pelvis with contrast confirmed the psoas abscess. The abscess was drained, and her pain improved significantly; culture was negative, presumably due to a 2-week course of Vancomycin. She was discharged home on Vancomycin and Ceftriaxone. At 6-week follow-up, she was ambulating without significant pain and her inflammatory markers were normalized.

DISCUSSION: This case illustrates that one should not dismiss pain symptoms in patients with chronic pain as drug-seeking behavior, especially when inflammatory markers are elevated. Additionally, *S. epidermidis* should not be assumed to be a contaminant. *S. epidermidis* psoas abscess was most likely caused by epidural injections. Had antibiotics been stopped prematurely, the psoas abscess could have caused significant morbidity or mortality.

POSTER # 11

Effects of Adenosine on Lipid Accumulation in a Human Hepatoma Cell Culture Model When Challenged with Excess Fatty Acid

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BACKGROUND: Non-alcoholic fatty liver disease (NAFLD) is the most prevalent liver disorder in western populations. Fully understanding lipid metabolism in the liver is necessary for further understanding the progression of NAFLD to non-alcoholic steatohepatitis (NASH) and in finding an alternative treatment to weight loss for those diagnosed with NAFLD.

METHODS: HepG2 cells treated with oleic acid (OA) were used as a model of liver cell lipid accumulation. Methionine, choline, and purines are important metabolites and nutrients that are dysregulated in NAFLD, so we used methionine and choline deficiency (MCD) and excess purines in cultured HepG2 cells to assess the influence of these conditions. Triglyceride accumulation and the gene and protein expression of regulators of lipid metabolism were analyzed.

RESULTS: MCD HepG2 cells had fewer total triglycerides and had higher expression of carnitine palmitoyltransferase 1 a (CPT-1a) and PPARa, genes involved in b-oxidation, as compared to control cells. MCD cells treated with extracellular adenosine or inosine with OA lowered phosphorylated-acetyl-CoA carboxylase (p-ACC). Adenosine was found to affect lipid metabolism through its role in activating AMP-activated protein kinase (AMPK) in the AMPK-ACC-CPT 1 pathway.

CONCLUSIONS: HepG2 cells under a methionine and choline-deficient condition increased fatty acid oxidation and prevented cells from lipid-loading after treatment with exogenous fatty acids. The addition of excess purine molecules exacerbated lipid-loading in HepG2 cells in all conditions by decreasing fatty acid oxidation and potentially by increasing fatty acid synthesis. Impaired adenosine production in the MCD condition may reduce the inhibition of fatty acid synthesis and result in enhanced lipid oxidation.

POSTER # 12

Thoracic White Cord Syndrome: A Case Report and Systematic Review

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BACKGROUND: White cord syndrome (WCS) is a rare postoperative injury that occurs after decompression of chronic spinal cord stenosis due to reperfusion. Most reported cases concern cervical WCS, and we report the first adult case of thoracic WCS.

OBJECTIVE: To describe a case of thoracic white cord syndrome and conduct a systematic review of current WCS literature.

METHODS: PRISMA guidelines were used to conduct a systematic review of available white cord syndrome literature. The first scientifically reported case of adult thoracic WCS was reported on from our institution.

RESULTS: In addition to the described case report, we identified 16 articles discussing 16 distinct cases of white cord syndrome. Only one other case discussed thoracic white cord syndrome, which was observed in a pediatric patient. The average age of all WCS patients was 52.9 +/- 20.6 years, and 75% of WCS patients were male. The average number of levels decompressed was 2.8; posterior approaches were utilized in 75% of patients. Of the 10 patients for whom pre- and postoperative neurologic examination information was available, decreased motor function occurred in 40% of patients, sensory diminishment occurred in 30% of patients, and decreased bowel/bladder function occurred in 10% of patients.

CONCLUSION: WCS is a rare complication of spinal decompression, and thoracic WCS has only been described once. Although WCS is rare, determining methods to identify patients who are at risk of this may be useful, as there is a substantive rate of neurologic injury and disability in these patients.

POSTER # 13

The Gut-Brain Connection: Inflammatory Bowel Disease Increases Risk of Acute Ischemic Stroke

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INTRODUCTION: Inflammatory bowel disease (IBD) is a common cause for chronic inflammation of the gastrointestinal tract. This increased inflammation may result in a hypercoagulable state that increases the risk for stroke. Few studies have examined the association between IBD and acute ischemic stroke (AIS). Thus, this study aims to investigate the complications and outcomes of AIS in patients with IBD.
METHODS: ICD-9-CM and ICD-10-CM codes were used to query the National Inpatient Sample for AIS and IBD diagnosis. Baseline demographics, clinical characteristics, complications, treatments, and outcomes were assessed through descriptive statistics, multivariate regression, and propensity score matching (PSM) analysis.
RESULTS: 7,468 of the 1,609,817 AIS patients had concomitant diagnoses of IBD. AIS patients with IBS were younger and had comparable stroke severities. Within both the complete and PSM cohorts, IBD patients had higher rates ($p<0.01$) of tissue plasminogen activator administration, deep vein thrombosis, decompressive hemicraniectomy, pneumonia, urinary tract infection, sepsis, and acute kidney injury. Only in the PSM cohort did IBD patients experience lower rates of mechanical thrombectomy ($p<0.01$). In terms of outcome, IBD patients were observed to have longer lengths of stay ($p<0.01$). However, the rates of poor functional outcome and in-hospital mortality were inconsistent between the two cohorts.

CONCLUSION: The severity of stroke is comparable in IBD and non-IBD patients. IBD patients had higher rates of hospital complications which may have contributed to the observed increased length of stay. Our research suggests that preventing hypercoagulability and thromboembolic events in patients with IBD is one avenue for improving outcomes.

POSTER # 14

Virtual Implicit Bias Training in the Preclinical Medical School Curriculum

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BACKGROUND: Implicit bias unconsciously shapes the way healthcare workers interact with patients and colleagues. Racial and ethnic bias against people of color can impact quality of care and lead to worse outcomes.

METHODS: This retrospective study assessed the effectiveness of a virtual anti-bias training in the preclinical medical school curriculum which included a didactic lecture and case discussions led by trained M2 facilitators. M2 students developed eight cases based on experienced instances of bias, including racism, sexism, and ableism. Pre- and post-training surveys using Likert scale and open-ended questions were administered.

RESULTS: 402 students participated in the curriculum. When comparing M1 pre vs post surveys (n= 212 vs n= 140), there was a statistically significant 20% increase in students who “agree” or “strongly agree” that they are comfortable facilitating a discussion with peers about implicit bias (.51, 95% CI .44-.58 vs. .71, 95% CI .62-.78). When examining the M2 pre vs post surveys (n=190 vs n=52), there was a statistically significant 21% increase in students who “agree” or “strongly agree” they were comfortable discussing implicit bias in medicine (.69, 95% CI .62-.75 vs. .90, 95% .79-.97). 92% of students “agree” or “strongly agree” that additional implicit bias training will make them a better doctor.

CONCLUSIONS: Our student-developed curriculum is associated with increased comfort discussing implicit bias. Feedback demonstrated an overwhelmingly positive response to the training. Longitudinal integration within the curriculum will help reinforce these topics and support students as they confront bias.

POSTER # 15

Craniotomy for Infratentorial Meningioma is Associated with Increased Complications and Longer Length of Stay

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BACKGROUND: Meningiomas are the most common primary brain tumors, with varying presentation and clinical course. They can be found in the supratentorial (ST) or infratentorial (IT) compartments.

OBJECTIVE: To elucidate the prevalence of complications and related outcomes of patients undergoing craniotomy for IT meningiomas vs. ST meningiomas.

METHODS: Data for patients undergoing craniotomy for meningioma from 2015 to 2019 were extracted from the National Surgical Quality Improvement Program (NSQIP). Baseline demographic characteristics were evaluated for differences between patients undergoing craniotomy for ST and IT meningiomas. Complications and outcomes were compared between the two groups.

RESULTS: 6686 total patients who underwent craniotomy for meningioma resection were identified. Of these, 866 (13.0 %) were IT. Compared to patients with ST meningioma, patients who had craniotomy for IT meningioma were more likely to be younger than 65 years of age and more likely to be females. There were higher rates of pneumonia and wound dehiscence in patients with IT meningioma. Length of stay (LOS) and rates of additional procedures were higher in patients undergoing craniotomy for IT meningiomas when compared to ST meningiomas. Specifically, placement of cerebrospinal fluid shunts and tracheostomy were more common in IT meningioma patients.

CONCLUSION: Craniotomy for resection of IT meningioma was associated with increased risk of tracheostomy and longer LOS. Optimization of these patients preoperatively is important to mitigate poor outcomes and healthcare resource utilization. Patient selection for surgery in IT meningioma should have different thresholds and take different risk factors into account than in ST meningioma.

POSTER # 16

Increased Incidence of Ruptured Cerebral Arteriovenous Malformations and Mortality in the United States: Unintended Consequences of the ARUBA Trial?

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BACKGROUND: The findings of the A Randomized Trial of Unruptured Brain Arteriovenous Malformation (ARUBA) trial, which determined that medical management was superior to prophylactic interventional therapy for the treatment of unruptured cerebral arteriovenous malformations (cAVMs), remain polarizing and controversial. Previous analyses of national registry data have demonstrated decreased rates of endovascular and surgical management for unruptured cAVMs following the publication of the ARUBA trial in 2014.

METHODS: Adult cAVM patient admissions were identified in the National Inpatient Sample (NIS) from 2009 to 2019 using International Classification of Diseases, Ninth and Tenth Revision, Clinical Modification codes. The incidence of cAVM rupture and in-hospital mortality were compared between the pre- (2009-2013) and post-ARUBA trial eras (2014-2019) using complex samples weighted estimates.

RESULTS: Among 121,415 hospitalizations for cAVM during the study period, 31,389 (25.9%) were admissions for acutely ruptured malformations. The incidence of both ruptured cAVM (13.3% vs. 34.4%, $p<0.001$) as well as rates of in-hospital mortality (2.0% vs. 7.6%, $p<0.001$) significantly increased in the post-ARUBA trial era. Following multivariable regression analysis adjusting for age, illness severity, and acute neurological condition, the post-ARUBA trial era was independently associated with both cAVM rupture (aOR 1.99, 95% CI 1.72 to 2.29; $p<0.001$) and in-hospital mortality (aOR 1.94, 95% CI 1.37 to 2.75; $p<0.001$).

CONCLUSIONS: The incidence of ruptured cAVM increased following 2014, potentially a reflection of a paradigm shift to conservative and non-interventional management strategies in unruptured cAVM patients. Further studies may be necessary to exclude other confounders contributing to this rise.

POSTER # 17

Distinctive Characteristics of Thoracolumbar Junction Region Stenosis

Authors' names: Eris Spirollari BA[1], John K. Houten MD[2, 3], Christina Ng BS[1], Jacob D. Greisman BA[1], Grigori Vaserman BS[1], Jose F Dominguez MD[1], Simone A. Betchen MD[2], Amit Y. Schwartz MD[2], and Merritt D Kinon MD[1]
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BACKGROUND: Thoracolumbar junction region stenosis produces spinal cord compression just above the conus and may manifest with symptoms that are not typical of either thoracic myelopathy or neurogenic claudication seen with lumbar stenosis. Few studies have described the specific pattern of presenting symptoms and neurologic deficits.
METHODS: We retrospectively reviewed surgically treated cases of T10-L1 degenerative stenosis, recording demographics, presenting signs and symptoms, and imaging findings. Clinical outcomes were assessed with regard to and change in preoperative symptomatology and the thoracic Japanese Orthopedic Association (JOA) score.
RESULTS: Of 1069 laminectomy patients for degenerative stenosis, there were 31 patients (16M/15F) at T10-L1 with a mean age of 64.4. Patients complained of lower extremity numbness in 29/31 (94%), urinary dysfunction 11/31 (35%), and back pain 11/31 (35%). All patients complained about difficulty with gait, and objective motor deficits were detected on examination in 24 of 31 (77%). Deficits were most often seen in foot dorsiflexion 22/31 (71%) of which 15 (68%) were bilateral and 7/22 (32%) were unilateral. Other muscle groups affected were the iliopsoas 13/31 (42%), quadriceps 6/31 (19%), and plantarflexion 4/31 (13%). The deep tendon reflexes were increased 10 (32%), decreased 11 (35%), normal 10 (32%); and the Babinski sign was present 8/31 (26%). The mean thoracic JOA score improved from 6.4 (3-10) to 8.4 (5-11). The pathology of stenosis was spondylosis 25/31 (81%), synovial cyst 1/31 (3%), OLF 6/31 (19%), calcified disc herniation 4/31 (13%), and OPLL 2/31 (6%). Cord signal change was present in 23/31 (74%). Postoperatively, gait was reported to have subjectively improved in 27/31 (87%) but was not improved in 4/31 (13%). Numbness was reported to have improved in 25/29 (86%) and not improved 4/29 (14%). Urinary function, however, was improved in only 4/11 (45%) and was reported to not have improved in 7/11 (55%). Back pain improved 6/11 (36%) and was not improved 5/11 (64%).
CONCLUSIONS: T10-12 thoracolumbar junction stenosis produces distinctive neurologic findings characterized by lower extremity numbness, weakness particularly in foot dorsiflexion/footdrop, urinary dysfunction, and inconsistent presence of Babinski signs and reflex changes. This neurological pattern may stem from compression at the level of the epiconus where the myelomeres and emanating roots of L4 and L5 are located. Surgical decompression results in significant clinical improvement, with numbness and gait improving to a greater extent than urinary dysfunction. Many patients with thoracolumbar junction stenosis are initially misdiagnosed as being symptomatic from lumbar stenosis, thus delaying definitive surgical treatment.

POSTER # 18

Impact of Burn Injuries on Outcomes in Patients with Acute Ischemic Stroke – A Nationwide Propensity Score Analysis

Authors: Lillian Xie, Zhazira Irgebay, Aiden Lui, Akash Thaker, Eric Feldstein, Kevin Clare, Fawaz Al-Mufti, MD

INTO/BACKGROUND: Burn injuries predispose susceptible patients to increased risk for acute ischemic stroke (AIS). While past research has examined rates of AIS following burn injuries, current literature lacks a nationwide comparison of treatments, complications, and outcomes of AIS in patients with and without burn injuries.

METHODS: The Nationwide Inpatient Sample (NIS) was queried using ICD-9-CM/ICD-10-CM codes to identify patients with AIS and concomitant burn injuries. Differences in baseline demographics, treatments, complications, and outcomes were compared between AIS patients with and without burn injuries, with subsequent propensity score-matching.

RESULTS: Patients with burn injuries and AIS were younger (66.93 vs 70.9, $p < 0.01$) and had higher stroke severity (.62 vs .58, $p < 0.01$) compared to non-burn AIS patients. In a propensity score-matched cohort, burn patients experienced higher rates of deep vein thrombosis ($p < 0.01$), pulmonary embolism ($p = 0.03$), sepsis (12.46% vs 2.58%, $p < 0.01$), acute kidney injury (29.47% vs 12.89%, $p < 0.01$), acute myocardial infarction (8.56% vs 5.09%, $p < 0.01$), and cardiac arrest (3.58% vs 1.41%, $p < 0.01$). In a multivariate regression predicting functional outcome, presence of burn injuries was significant in predicting poorer functional outcome (OR: 2.594, CI: 2.203 – 3.056, $p < 0.01$), higher in-hospital mortality (OR: 2.465, CI: 2.03 – 2.993, $p < 0.01$), and greater LOS (OR: 2.826, CI: 2.466 – 3.24, $p < 0.01$) when controlling for admission age, AIS severity, and race.

CONCLUSION: AIS patients with burn injuries have higher rates of hospital complications, mortality, and poor functional outcome compared to non-burn AIS patients. There was no statistically significant difference in treatment rates between AIS patients with and without burns. As the first large-scale investigation examining AIS in patients with and without burns, this study lays the foundation for future analysis on the relationship between burn injury, poorer functional outcome, and AIS.

POSTER # 19

Utility of Intravenous Alteplase and Mechanical Thrombectomy in Central Retinal Arterial Occlusions – A Nationwide Analysis

Authors: Christopher G. Markantonis, Ariel Sher, Aiden K. Lui, Eric Feldstein, Fawaz Al-Mufti MD.

INTRODUCTION: Central retinal artery occlusions (CRAO) is the ocular equivalent to an acute ischemic stroke (AIS) and presents with unilateral vision loss in the majority of cases. Given the pathological similarities between CRAO and AIS, treatment via intravenous alteplase (tPA) and endovascular mechanical thrombectomy (MT) have been hypothesized to be similarly effective.

METHODS: The National Inpatient Sample was queried using International Classification of Disease Ninth and Tenth edition for patients presenting with CRAO and AIS between 2010 and 2019.

RESULTS: 5009 patients with CRAO were identified. Compared to patients with AIS, CRAO patients were younger (68.67 vs 70.9) and had higher rates of obesity (13.52% vs 11.33%), hypertension (73.71% vs 69%), long-term anticoagulant use (9.28% vs 4.74%), and tobacco use (19.19% vs 17.07%). CRAO patients had lower rates of tPA (3.41% vs 6.21%) and MT (0.38% vs 1.31%). CRAO patients had lower rates of deep vein thrombosis (0.82% vs 1.57%), pneumonia (3.51% vs 6.1%), urinary tract infection (5.95% vs 11.73%), acute kidney injury (13.44% vs 14.82%), and acute myocardial infarction (3.53% vs 5.1%) (all $p < 0.01$). In terms of outcome, 9.24% of CRAO patients had profound blindness. In a multivariate regression, there was no relationship between tPA and MT and profound blindness.

CONCLUSION: CRAO is a rare vascular insult and presents with fewer complications compared to AIS. The limited sample of tPA and MT may contribute to their insignificance in protecting against profound blindness in the multivariate. Further research is needed to explore effective revascularization therapies in CRAO.

POSTER # 20

Trends and Outcomes of Extracorporeal Membrane Oxygenation for Acute Respiratory Distress Syndrome (Analysis of the National Inpatient Sample, 2010-2019)

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BACKGROUND: Given the increased demand for extracorporeal membrane oxygenation (ECMO) in patients with acute respiratory distress syndrome (ARDS), especially in the COVID-19 era, it is essential to understand the trends and outcomes of ECMO during the past years.

METHOD: A retrospective analysis was conducted using the largest all-payer in-patient healthcare database in the United States, the National Inpatient Sample, from 2010 to 2019. Subjects were identified using International Classification of Diseases (ICD-9 and ICD-10) codes. Patients above 18 years of age with ARDS, requiring mechanical ventilation, were identified. Subsequent analysis included differences in demographics, comorbidities, development of acute kidney injury (AKI), need for renal replacement therapy (RRT), and ECMO use.

RESULTS: 72,950,400 patients were reviewed from 2010-2019. 1,683,804 patients were identified with ARDS. 5713 patients were treated with ECMO. There was drastic increase in the utilization of ECMO for ARDS with 3 per 10000 ARDS patients in 2010 to 76 per 10000 patients in 2019 ($p < 0.01$). The mortality rates on ECMO steadily declined, with mortality as high as 75% in 2010 to 42% in 2019 ($p < 0.01$). The development of AKI (adj. OR 2.1), treatment with ECMO (adj. OR 2.1), development of sepsis (adj. OR 1.5) and need for RRT (adj. OR 1.6) were associated with increased risk of mortality in ARDS patients.

CONCLUSION: Use of ECMO has increased drastically over the last decade with decreased mortality rates due to better supportive treatment strategies. It would be interesting to compare this analysis to data obtained from patients affected by COVID-19 ARDS.

POSTER # 21

Is Vancomycin Given Appropriately in Patients with Neutropenic Fever?

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BACKGROUND:

Neutropenic fever (NF) is a single oral temperature of 38.3º C (101º F) or a temperature of greater than 38.0º C (100.4º F) sustained for more than 1 hour in a patient with an absolute neutrophil count (ANC) lower than 500 cells/uL. The addition of Intravenous (IV) vancomycin is not routinely recommended. Our aim is to determine the extent of inappropriate vancomycin use in a tertiary care community hospital.

METHODS:

Retrospective chart review of inpatients with NF between 2017 and 2019. Variables were categorized based on whether IV vancomycin was administered, and presence or absence of indications. Groups were four: appropriate use (indication present and vancomycin given), appropriate non-use (no indication and vancomycin not given), inappropriate use (no indication and vancomycin given), and inappropriate non-use (indication present but vancomycin not given). Independent samples t-tests, chi-square and logistic regression were used in statistical analysis.

RESULTS:

Of the 105 patients, 86 (76.1%) received vancomycin and 25 (23.9%) did not. 46.6% had appropriate use, 12.4% had appropriate non-use, 29.5% had inappropriate use, and 11.5% had inappropriate non-use. Hemodynamic instability and pneumonia were significantly associated with appropriate use. The inappropriate use was not significantly associated with its discontinuation after 48hrs (OR=2.33, p=0.372). Only positive blood cultures were significantly associated with an increase in the likelihood of discontinuation of Vancomycin use (OR=6.62, p=0.021).

CONCLUSIONS:

Inappropriate vancomycin use is associated with unnecessary blood monitoring, side effects and increased costs. Whereas inappropriate non-use can lead to poor outcomes. Vancomycin use in NF patients should be consistent with current IDSA guideline.

POSTER # 22

Clinical utility of emergency use baricitinib in adult patients with respiratory failure due to COVID-19: Real-world experience in two ethnically-diverse community hospitals

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BACKGROUND: Barictinib is a janus kinase (JAK)1 and JAK2 inhibitor that is emergency use authorized (EUA) for COVID-19-associated respiratory failure. Results of randomized trials have been inconsistent. As with many medications with EUA for COVID-19, efficacy in a real-world setting needs further exploration.

METHODS: A retrospective chart review study of patients receiving EUA baricitinib plus standard of care (SOC) versus SOC alone was conducted at two community hospitals in ethnically diverse areas of Queens. Use required committee approval (oxygen via high-flow nasal cannula (HFNC), within 72-hours of onset of respiratory failure, not impending intubation, good baseline functional status). Patients approved for baricitinib and consented were compared to those who were approved and did not consent (SOC only). Respiratory status was assessed at baseline, days 1-7, 14 and 28.

RESULTS: Twenty-eight patients were approved to receive baricitinib; 17 consented (patients) and 11 did not (controls). Groups were similar in age (median=69years), symptom duration (median=6days), and percentage receiving remdesivir (approx. 50%). All received steroids. There was no difference between groups on percentage of patients intubated or expired on day 3 (controls=18.2%,patients=11.8%,p>.10), day 7 (controls=27.3%,patients=29.4% p>.10), day 14 (controls=45.5%,patients=35.3%,p>.01), or day 28 (controls=54.5%,patients=52.9%,p>.10).

CONCLUSION: In our small, real-world cohort, there were no differences between patients who received baricitinib or not in respiratory outcome at days 3, 7, 14, or 28. In both groups, who were on HFNC at baseline, over 50% were on ventilator or had expired by day 28. Baricitinib use in patients requiring HFNC at baseline did not have clinical utility for preventing intubation or death.

POSTER # 23

Severe COVID-19 Infection and Associated Laboratory Abnormalities and Perinatal Outcomes

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BACKGROUND: COVID-19 patients requiring hospitalization have significant laboratory abnormalities associated with disease severity. In pregnancy, lab abnormalities are not well-studied. Our objective is to compare laboratory features and perinatal outcomes in severe versus mild-moderate cases and negative controls.

STUDY DESIGN: This was an IRB-exempt, retrospective chart review of PCR confirmed COVID-19 positive obstetrical patients admitted and delivered in our hospital from March 30th, 2020 to July 1st, 2021. They were categorized based on severity of infection. Severe and critical cases were characterized as patients with lower respiratory tract disease requiring inpatient hospitalization for respiratory support to maintain oxygen saturation levels >95%. Severe cases were aged (+/- 5 years) and BMI matched (+/- 5 kg/m^2) to mild-moderate cases as well as negative controls in 1:2 ratio. One-way ANOVA and T-test were performed evaluating baseline admission labs. Additionally, birth outcomes were compared between mild-moderate COVID-19 infection versus severe and critical COVID infection using Chi-square analysis.

RESULTS: 104 patients had positive COVID-19 PCR test upon admission. 11 patients were hospitalized for severe or critical COVID-19 infection. Patients with severe infection demonstrated lower WBC, higher neutrophil count, lower lymphocyte count and N/L ratio (P <0.05) with no difference in platelet count or liver function tests. There was an increased risk of fetal growth restriction associated with severe COVID-infection (Table).

CONCLUSION/RELEVANCE: Laboratory findings may predict severity of COVID-19 infection, specifically neutrophil and lymphocyte counts and is also associated with fetal growth restriction. This has potential to guide clinical decision making in the prenatal course.

POSTER # 24

Reducing Excessive Variability in Infant Sepsis Evaluation

Authors: Zunaira Ayub, Sameh Elshahawy, Loay Khateeb, Vanessa Castro, Nolan Nielsen; Oluwapelumi Ade-kolawole, Jacqueline Shimamoto, Shana Yazdanpanah, Deepa Krishnan, Jean Gordon, Carol Landron, Lenny Shats, Kim Wagner; Johnathon LeBaron, Ishita Kharode, Teresa Lemma, Kevin McDonough, Melissa Grageda
Institution affiliation: Richmond University Medical Center

PG Year	Pediatric Residents	Expected Date of Completion
3	Zunaira Ayub, Sameh Elshahawy, Vanessa Castro,	June 2022
2	Nolan Nielsen	June 2023
1	Loay Khateeb	June 2024

BACKGROUND: Changing bacterial causes of fever in infants warranted updated clinical approaches to avoid excessive evaluations, hospitalizations, and antibiotic treatment. In 2021, the American Academy of Pediatrics (AAP) published guidelines on febrile infant evaluation, initial disposition, empiric antibiotic therapy and hospital discharge. We aimed to improve the evidence-based evaluation and management of infants presenting with fever to our community hospital over 12 months.

METHODS: SETTINGS: Emergency Department (ED) and Inpatient Unit
Sample Size: baseline(n=9), action period(2 of 12 PDCA cycles, n=4)

1. Application and acceptance to AAP national quality improvement (QI) collaborative
2. Identification and QI training of multi-disciplinary team leaders.
3. Retrospective 12-month chart review
4. Toolkit implementation: best practice education, individual provider feedback, guideline-specific tools
5. Monthly data collection and PDCA sessions
   - Primary measures (compliance goal): appropriate CSF collection(90%), disposition from ED(90%), receipt of antibiotics(90%), hospital discharge(90%)
   - Secondary measures: appropriate follow-up(75%), patient engagement(75%), oral antibiotic use(75%)
   - Balancing measures: appropriate evaluation, ED revisits, readmissions, delayed diagnosis of invasive bacterial infections

PRELIMINARY RESULTS: Baseline data showed quality gaps for all primary measures. After 2 PDCA cycles, improved compliance was noted with appropriate CSF collection (from 80 to 100%), appropriate disposition from the ED (33% to 50%), and appropriate receipt of antibiotics (33% to 50%). There was no increase in ED revisits, readmissions, or delayed diagnosis of invasive bacterial infections.

CONCLUSIONS: Participation in a national QI collaborative showed preliminary improvement in health care value provided, through improved compliance with evidence-based guidelines, and decreased utilization of unnecessary tests, therapies, and resources.

POSTER # 25

Associations Between BMI Status and Asthma Triggers for Hospitalized Children in an Urban and a Suburban Children's Hospital

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BACKGROUND: Asthma is a prevalent illness and cause of pediatric hospitalizations. Few studies examine asthma triggers and weight status.

OBJECTIVE: Our purpose is to compare asthma triggers and weight status of children hospitalized for asthma exacerbations.

METHODS: A database was created from a retrospective chart review of children 2-18yrs admitted between 2017-2019 at two academic children's hospitals, Montefiore in Bronx, NY and Stonybrook Children's in Stony Brook, NY. Patients were stratified by BMI and logistic regression was used to estimate odds ratios for asthma triggers while adjusting for age, gender, race, and hospital.

RESULTS: Our sample included an n of 1931 patients, comprised of 1667 (86%) and 264 (14%) children representing urban and suburban populations, respectively. 56% had healthy BMI, 15% overweight and 29% obese. Sample was 59% male and mean age was 6.5 years (SD=4.4). Viral triggers accounted for 78% of admissions. Children 0-4 years were more likely to report a viral trigger compared to >4 years (0-4yrs 90% vs 4-11yrs 74% vs >12yrs 66% with $p<0.0001$). Suburban children had more viral triggers compared to urban children (87% vs 76% respectively, $p<0.0001$). There was no association between BMI categorization and asthma triggers (OR obese vs normal 1.02 and OR overweight vs normal 1.03, overall P=0.98). Location, age, BMI categorization and smoking exposure did not increase PICU admissions and had no significant impact on LOS.

CONCLUSION: Triggers were not associated with weight status. Non-viral triggers were more common at Montefiore compared to Stony Brook. This population difference merits further exploration.

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POSTER # 26

Maternal and Neonatal Risk Factors for Development of Neonatal Lenticular Striate Vasculopathy (LSV)

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BACKGROUND: LSV is an echo density of the lenticulostriate branches of the middle cerebral arteries in the region of the basal ganglia and/or thalamus and a common finding in neonatal ultrasounds performed in the NICU. However, its significance remains unknown. Neonates with this finding often undergo a work-up based on imaging in the absence of clinical or predisposing factors.

METHODS: This is a retrospective study on infants admitted to the NICU from January 2016 through December 2020. All infants who had a head ultrasound done and who had mineralizing vasculopathy reported were included in the study. Each neonate with LSV was then matched by gestational age, weight, and birth year to controls. Neonatal and maternal risk factors were evaluated, and adjusted odds ratio (AOR) calculated for each risk factor.

RESULTS: One out of the 76 neonates with LSV tested positive for CMV and received antiviral treatment. Apart from maternal diabetes, there was no significant association between maternal or neonatal demographics in infants with LSV. The average day of life when LSV was identified ranged from 10-14 days, regardless of gestational age.

CONCLUSION: There seems to be no specific infectious, maternal, or neonatal risk factor for development of LSV. An infectious disease workup may be unnecessary for these infants. Maternal diabetes was a protective factor for LSV, though the reason for this is unknown. As LSV developed within the same postnatal time across gestational age, the presence may very well be a normal stage of postnatal brain development.

POSTER # 27

Socioeconomic Characteristics of Pediatric Traumatic Brain Injury Patients

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BACKGROUND: Socioeconomic factors may play a role in the type and outcome of pediatric traumatic brain injury (pTBI).

OBJECTIVE: To characterize associations of socioeconomic factors and pTBI.

METHODS: The Kids' Inpatient Database was queried from 2016-2019. pTBI was selected using International Classification of Disease, 10th revision codes.

RESULTS: 26417 patients sustained pTBI. 11040 (41.8%) had Medicaid, 13119 (49.7%) were of non-white race (NWR), and 14887 (56.4%) were of lower 50th median income category (low MIC). Patients on Medicaid ($p < 0.001$) and of NWR ($p < 0.001$) were less likely to sustain TBI from land transport but more likely to be assaulted ($p < 0.001$ for both). Land transport ($p < 0.001$) and assault ($p < 0.001$) were more likely in patients from the low MIC.

Patients of NWR had more hemiplegia ($p < 0.001$), herniation ($p < 0.05$), hydrocephalus ($p < 0.05$), and sepsis ($p < 0.05$). Patients of low MIC were more likely to experience hemiplegia ($p < 0.05$), mechanical ventilation ($p < 0.001$), and hydrocephalus ($p < 0.05$). Patients on Medicaid were more likely to have hemiplegia ($p < 0.001$), herniation ($p < 0.001$), and hydrocephalus ($p < 0.001$). Inpatient death was more likely in NWR and patients of low MIC ($p < 0.001$; $p < 0.05$).

CONCLUSION: Patients of low socioeconomic status were more likely to be victims of assault and experience hemiplegia or hydrocephalus. Mortality was higher in patients of NWR and low MIC. This highlights the need for public health efforts to address disparities.

POSTER # 28

Advance Directives (ADs) Can be Implemented in Patients with Heart Failure: A Quality Improvement (QI) Project

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BACKGROUND: Advance Care Planning (ACP) through implementing Advance directives (AD) enables patients to receive end of life care in accordance to one's wishes; yet ACP receives little importance in clinical practice, occurring in only 11% of patients with heart failure (HF), a disorder with limited life expectancy. Timely implementation of ADs in the form of a Health Care Proxy, a surrogate decision maker when patients no longer have capacity is a quality measure.

AIM: Through a QI project, improve implementation of ADs in hospitalized patients with HF by 25%.

METHODS: Address hospitalized patients with HF in a teaching service with and without ADs, February through April 2022. The PDSA cycle was followed. A tool documented data on demographics (age, gender, education, race, barriers, facilitators), entered into an excel file. Mentoring on discussing ACP was provided by a faculty physician.

RESULTS: Preliminary *(will address 40 patients by April)*

- Total cases addressed 17
- Newly Implemented 12: African-American 5, Hispanic 3, White 1, Other 3
- Revisited ACP in 4
- Refused: 1
- Age <60 years implemented 4, >60 years implemented 8.
- Gender; Males : Females 8:4
- High school education in 9 implemented; no schooling 2
- Insufficient knowledge: 6
- Inadequate physician effort: 5

CONCLUSIONS

- It is possible to implement ADs in HF patients through a QI project; successful implementation occurred in 12 of 17 cases addressed (70%).
- Barriers to implementation are insufficient knowledge about ADs and inadequate physician efforts. Procrastination plays a role.
- Facilitators for implementation are earnest provider efforts and higher education

POSTER # 29

The Yield of Blood Cultures in Hospitalized Patients with Skin and Soft Tissue Infections (SSTI)

Mariya Zyablitskaya, MD, Maria J. Suarez, MD, Rajat Thawani, MD, Hammad Bhatti, MD, Tomer Hananya, MD. Laura Rivera-Boadla, MD, Manish Thakur, MD, Nadia Malik MBBS, Michael Silver, MS, Monica Ghitan, MD, Edward K. Chapnick. MD and Yu Shia Lin, MD

INTRODUCTION: Skin and soft tissue infections (SSTI) are common bacterial infections in both outpatient and inpatient settings. In literature, the prevalence of positive blood cultures (BC) ranges from 2% to 21%. Because of the heterogeneities of reported studies, the exact prevalence of bacteremia in hospitalized patients with SSTI is unknown.

OBJECTIVES: To determine the prevalence of bacteremia in hospitalized patients with SSTI.
To establish the risk factors, and the outcomes between patients with and without bacteremia.

METHODS: We performed a retrospective study from January 2017 to December 2018. Adult patients admitted with SSTI who required BC collection on admission were included. Patients with systemic inflammatory response syndrome (SIRS)/sepsis or severe SSTI, underlying immunodeficiency or on chemotherapy, underwent BC collection. Any concomitant infection that might lead to positive blood cultures were excluded.
Patients were divided into 3 groups: true positive (TP) defined as a true pathogen, false positive (FP) defined as a contaminant, and true negative (TN) defined as no growth in blood cultures. Patients' comorbidities, the duration of antibiotic use, and the length of stay (LOS) were compared.

RESULTS: We included 541 patients. The mean age was 62 ± 18.4 years old, and 60% were male. We found that 47/ 541 (8.6%) had skin abscesses. Fifty-seven patients (11%) had positive BC, of which 32 were TP (6%), and 25 were FP (5%). 89% of patients (484) had TN BC. Notably, the patients in the FP and TN groups had prior antibiotic use, compared to TP ($P<0.05$). The FP group also had a longer LOS and duration of antibiotic use compared to TN group ($p<0.05$). 76% of FP had repeated BC. Beta-lactam antibiotics were most commonly used, followed by anti-MRSA antibiotics (40%). We did not find risk factors to predict likelihood of bacteremia. The outcome was not different among 3 groups.

CONCLUSION: Our study showed that there was a low prevalence of true bacteremia (6%) in hospitalized patients with SSTI. More than 90% of TP were *Staphylococcus* and *Streptococcus spp*, which are covered by empiric antibiotics. Blood cultures may not affect the initial treatment of SSTI. However, FP BC were associated with an increased LOS, longer antibiotic use, and increased healthcare cost.

POSTER # 30

Type 2 Diabetes Mellitus Makes Little Impact on Heart Failure Hospitalizations in Older Adults Across Geographical Regions in U.S.: National Inpatient Database Analysis

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BACKGROUND, OBJECTIVE: Regional disparities exist regarding outcomes for heart failure (HF) across the United States (U.S.), but we do not know if Type 2 Diabetes (DM) makes a difference. Our study explores differences in HF related hospitalizations in older adults and impact of DM based on geographical regions.

METHODS: National Inpatient Sample database for 2019 queried. Hospitalizations with principal diagnosis of HF in adults ≥65 years with and without DM included, utilizing ICD-10 codes. Comparison made between 4 U.S. regions- Northeast, Midwest, South, West. Baseline characteristics of HF hospitalizations with and without DM were identified, including mortality, length of stay (LOS) and hospital charges. Statistical analysis: STATA.

RESULTS: 439,094 hospitalizations with principal diagnosis of HF, age ≥65 years and DM. 178,944 age 65-75, 169,365 age 75-85 and 90,785 age ≥85 years, comprising 48.7% of older adults with HF. Overall, 53% females, predominantly white (19% African-American, 9% Hispanics in South) with similar co-morbidity burden. North-east had highest LOS (6.2 ± 0.08 vs 5.7± 0.07 days, p=0.00) with slightly higher mortality (3.15% vs 3.88%, p= 0.38, OR 1.25) and West had shortest LOS (5.11 ± 0.11 vs 4.9 ± 0.1 days, p=0.00) but highest hospitalization charges ($75,907.9± 3527.9 vs $ 69,023 ± 3565, p=0.00) with DM and without DM respectively.

CONCLUSIONS:
Wide regional differences exist in costs and outcomes of healthcare delivery to older adults with HF.
Additional presence of DM made little clinically significant impact on outcomes.
Interventions should promote cardiovascular health in all patients, regardless of presence of DM.

POSTER # 31

A Multimodal Pain Regimen reduces Opiate Use and Disparities in Post-Operative Cesarean Section Patients

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BACKGROUND: Racial, ethnic, and language disparities have been demonstrated across all areas of health care. Recommendations in post-operative pain management emphasize the use of multimodal pain management, which may reduce disparities in pain medication administration. Previously, we noted disparities in pain management based on primary language in which non-English speaking patients had higher pain scores and received less medications.

METHODS: This cohort study compared post-operative use of opiate and non-opiate pain medication after implementation of a multimodal pain management order set. Prior to implementation, pain medications were administered based on patient-reported pain scales. The order set consisted of around-the-clock NSAID and acetaminophen, with as-needed oxycodone for severe pain. We included patients delivered via cesarean at our hospital. Data was collected on demographics, pain assessment and medications administered.

RESULTS: The study included 632 patients. After implementation of the order set, oxycodone doses decreased in both English speaking (from 7 to 2) and Non-English speaking (from 4 to 1) patients. No difference was noted between language groups ($p = 0.63$). NSAID use increased in both English speaking (from 4 to 7) and non-English speaking (from 3 to 7) patients, again with no difference between language groups ($p=0.089$).

CONCLUSION: Implementation of a standardized order set decreased opioid use and increased NSAID use regardless of patient's primary language eliminating the previously seen differences across language groups.

CLINICAL RELEVANCE: While primary language remains a barrier to equitable care, standardization of pain management protocol is one tool that can be used to mitigate this disparity.

POSTER # 32

Celiac Plexus Neurolysis for Patients with Peritoneal Carcinomatosis

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BACKGROUND: Abdominal pain is the most common symptom reported by patients with peritoneal carcinomatosis. In these patients, the pain is typically described as being constant and aching, and is often refractory to standard therapy, including opioids. Although celiac plexus neurolysis (CPN) was first used to treat pain associated with upper abdominal cancer in 1964, there is still a paucity in the literature for the utilization of CPN in patients with peritoneal carcinomatosis.

OBJECTIVE: Review the literature addressing the utility of CPN for palliation of pain emanating from peritoneal carcinomatosis.

METHODS: An electronic literature search was performed with the assistance of a librarian. A list of pertinent keywords was derived, and electronic databases including PubMed, were searched. Only studies including patients with peritoneal carcinomatosis were reviewed. In addition, all references from included studies were reviewed for additional relevant trials.

RESULTS: A total of 12 articles, including our team's recent case report were found to meet eligibility criteria.

CONCLUSION: CPB offers an alternative pain management option for individuals with diffuse carcinomatosis refractory to traditional palliative options including opioids.

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POSTER # 33

Improving Resident and Faculty Wellness by Development, Implementation and Evaluation of a Physician Wellness Curriculum

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PG Year	Pediatric Residents	Expected Date of Completion
2	Suleiman Essoh	June 2023
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BACKGROUND: In 2020, the physician burnout rate in the United States was 42%, with 79% stating that their burnout began before the onset of the COVID-19 pandemic. In residents, burnout rates ranged from 41-90%. To address these concerning facts, our residency program sought to strengthen our physician wellness initiative at our suburban community hospital. Specifically, we aimed to increase our average wellness score to above 80% over 3 years.

METHODS: Curriculum design, development, implementation, and evaluation were performed with regular PDSA meetings comprised by resident and faculty focus groups to identify gaps/opportunities for improvement and develop action plans. The outcome measure was the annual average score from the wellness survey sent by the Accreditation Council for Graduate Medical Education to residents and faculty.

PRELIMINARY RESULTS: Survey response rates were 100% for 18 residents, and 79-92% for 15 faculty physicians. Initial wellness sessions focused on burnout recognition and prevention. Activities included workshops for relaxation, resilience, and team-building. Additional topics identified through PDSA meetings included: time management, financial wellness, nutrition, physical fitness, sleep hygiene, coping with death and other challenging situations. During the pandemic(year 1), frequency of wellness sessions were increased from monthly to weekly. During year 2, faculty participation was mandated and significantly increased. The average wellness score increased over 2 years, from 34 to 65% for residents, and 62 to 76% for faculty.

CONCLUSION: Implementation and development of a wellness curriculum was associated with improved average wellness scores of resident and faculty physicians in a suburban community-based pediatric residency program.

POSTER # 34

Epsilon Waves and Preventing Sudden Cardiac Death

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INTRODUCTION: We present a patient who developed sudden sustained ventricular tachycardia at the hospital and upon further investigation she was found to have epsilon waves on electrocardiogram (ECG) which are characteristic for arrhythmogenic right ventricular cardiomyopathy (ARVC). Recognition of these ECG changes and transthoracic echo findings consistent with severely dilated right ventricle led to timely management with automatic implantable cardioverter-defibrillator (ICD) placement, and expedited referral to a heart failure specialist for consideration of advanced therapies including heart transplant.

CASE DESCRIPTION: 59-year-old previously healthy female with a family history of sudden cardiac death was admitted to the hospital with syncope and found to have a subdural hematoma managed with Burr hole drainage. The patient had a sudden episode of sustained ventricular tachycardia requiring cardioversion to sinus rhythm. She was subsequently initiated on amiodarone for arrhythmia suppression. Transthoracic echocardiogram showed severely dilated right ventricle measuring 6.7cm in the apical four chamber view with reduced ejection fraction of 45%. The electrocardiogram (ECG) showed sinus rhythm with incomplete right bundle branch block and an epsilon wave on precordial lead V1. Cardiac MRI showed right-ventricular ejection-fraction (RVEF) of 27% as well as global right-ventricular hypokinesia. As per Task Force 2010 criteria the patient met at least two major criteria which confirmed a “definite” diagnosis of ARVC. The patient received a secondary prevention ICD. She was also referred to an advanced heart failure specialist and is currently awaiting cardiac transplant.

DISCUSSION: ARVC involves mutations in the genes coding desmosomes thus causing replacement of the myocardium with fibrofatty tissue. This results in a substrate of delayed intraventricular conduction allowing for fatal reentrant ventricular arrythmias. We emphasize the importance of recognizing epsilon waves on ECG which are low voltage potentials following QRS complex and are highly specific to this disease process. The incidence of epsilon waves in ARVC accounts to 30%. Moreover, recognition of LV involvement in patients with ARVC can help identify patients at higher risk of mortality that may go on to benefit with heart transplant evaluation.

POSTER # 35

Pericarditis Related to Covid-19 mRNA Vaccination

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INTRODUCTION: The FDA approved the Pfizer- BioNTech and Moderna COVID-19 vaccines under Emergency Use Authorization (EUA) in December 2020. The advantages of these mRNA vaccines over traditional vaccines include efficacy to reduce over 90% of severe illness and hospitalization, be non-infectious, no have DNA integration, and wide availability to the public. When vaccines were given to masses, some side effects started to emerge. Since November 2021, 434 million doses of COVID-19 vaccine have been administered. Rare cases of pericarditis have been reported with majority of symptoms presenting following 2nd dose administration. However, pericarditis cases are usually caused by viral infections, myocardial infarction, chest trauma, autoimmune disorders, malignancies, and kidney failure. We report on a 24-year-old female in previous good health who developed pericarditis 3 weeks following first dose of the Pfizer® COVID-19 vaccine.

CASE PRESENTATION: A 24-year-old female with no significant history presented with one day of mid-chest pain of 5/10 intensity, radiating to left arm, exacerbated with deep inspiration and lying flat, and improved with leaning forward. She reported binge alcohol ingestion 2 days prior to admission followed by 2 episodes of vomiting and watery diarrhea with temperature of 101°F that resolved spontaneously. The patient had received first dose of Pfizer® COVID-19 vaccine 3 weeks prior to symptoms onset. There was no familial history of cardiac disease. On arrival, vital signs were normal except for HR of 109. On physical exam, the patient was overweight and anxious. Electrocardiogram (EKG) showed normal sinus rhythm with T wave inversion in leads V1, V2, and V3. Chest x-ray revealed a normal cardiac silhouette. Blood work was unrevealing; baseline and repeated troponin were unremarkable. Erythrocyte sedimentation rate was normal, C- reactive protein without significant elevation at 1.4. A CT chest ruled out pulmonary embolism. Repeat EKG and telemetry strips showed normal sinus rhythm, ST elevation with T wave inversions and PR depression at multiple leads. Echocardiography showed normal left ventricular ejection fraction, no pericardial effusion, or other abnormal findings. EKG findings and clinical presentation were consistent with pericarditis. Patient was discharged with ibuprofen and colchicine 2 days after admission and showed improvement without residual symptoms 2 weeks later.

CONCLUSION: Our case described a young female with typical pericarditis symptoms three weeks following 1st dose of COVID-19 vaccination. Her EKG findings were characteristic of pericarditis representing phase III, without significant CRP elevation, with no complications as of reduced LVEF, ventricular arrhythmias, pericardial effusion or troponin release. Clinicians should be vigilant about this rare side effect of COVID-19 vaccination which may present without characteristic symptoms and lab findings of the disease. Patients with suspected pericarditis should not be discounted despite unremarkable elevation of pro-inflammatory markers and require appropriate treatment.

Pericarditis secondary to COVID-19 has been under reported due to similarity of symptoms and correlation with the covid-19 infection, however confirmed pericarditis with complications like pericardial effusion have been identified incidentally in 6% of critical COVID-19 patients who had to undergo chest CT scan.

POSTER # 36

Spinal Epidural Abscess due to Klebsiella Pbsumoniae

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INTRODUCTION: Spinal epidural abscess (SEA) of the thoracic and lumbar spine is commonly caused by *staphylococcus aureus* (63%), however, 1% of all SEA may be due to kle*bsiella pneumoniae.* Patients who present with SEA often have a delayed diagnosis with neurological deficits present in 50% of cases. We present a patient with perianal abscess and COVID-19 pneumonia, found to have SEA in upper and lower cervical spine.

CASE PRESENTATION: A 52-year-old male with a history of diabetes, obesity, and alcoholism presented with perianal pain. He was febrile (102.6°F), tachycardic, tachypneic, and normotensive with oxygen saturation at 87% on room air. Physical examination revealed neck pain, shoulder pain, and perianal tenderness with normal rectal tone with no neurological deficits. The patient's laboratory values were significant for elevated WBC (12.6), CRP (36), and ESR (95). A pelvic and cervical CT revealed a 5cm perianal abscess without intra-pelvic extension, and retropharyngeal edema extending from C2 to C5. CTPA showed bilateral pulmonary infiltrates with no PE. The patient was also found to be positive for SARS-COV2 and given remdesivir however, steroid treatment was held due to bacterial infection. The abscess was drained and IV piperacillin/tazobactam was initiated. Wound cultures grew *k. pneumoniae*, *klebsiella ozoaenae*, and *streptococcus agalactiae* while blood cultures grew *k. pneumoniae.* Despite intervention and treatment, on day 3, patient had worsening headache and neck tenderness, without neurological deficits. His repeat blood culture continued to grow *klebsiella pneumoniae*. A repeat CT showed decrease in perianal abscess size without fluid collection, however a MRI spine showed epidural empyema, spinal canal stenosis, and compression of the cervical and thoracic spinal cord with posterior empyema extending from C1 to L2. Invasive intervention was not recommended due to lack of neurological deficits and the patient was given vancomycin. He was discharged on day 12 with IV cefepime and metronidazole for six more weeks. A MRI 3 months after discharge showed resolution of epidural abscess, and a MRI 6 months later showed no evidence of enhancing fluid collection or abscess.

CONCLUSION: This is a rare case of *k. pneumonaie* bacteremia and perianal abscess secondary to SEA of the cervical, thoracic, and lumbar spine with the absence of osteomyelitis or spondylodiscitis. The patient's initial symptoms could have been attributed to COVID-19 however elevated ESR and CRP should have triggered evaluation for SEA when coupled with back pain. Conservative management, including antibiotics, frequent neurological examinations, and serial MRIs, is preferred for patients without neurological deficits and an identified microbiological agent. Our patient's history of diabetes and alcoholism with COVID-19 co-infection increased his risk for superimposed bacterial infection. SEA should be considered when patients have back pain, elevated proinflammatory markers, and fever, despite the absence of neurological symptoms.

POSTER # 37

Is Losing a Pregnancy Stressful Enough to cause Takotsubo Cardiomyopathy?

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INTRODUCTION: The incidence of cardiovascular diseases in pregnancy is estimated at 1%. Commonly seen diseases include peripartum cardiomyopathy (PPCM), pregnancy-induced hypertension, and myocardial infarction. We present a case of acute heart failure in a woman in her 2nd trimester.

CASE PRESENTATION: A 42-year-old African woman with hypertension and six prior miscarriages secondary to cervical insufficiency was admitted for cerclage revision at 20 weeks gestation. On postoperative day 4, she developed vaginal bleeding and abdominal pain. Sonogram revealed fetal demise, cerclage was removed, with immediate vaginal delivery. Subsequently, she became tachycardic to >120/min, hypotensive to 70/40 mmHg, and febrile to 102.5F. She was diagnosed with septic shock, likely secondary to amniotic fluid infection. At that point, the patient was transferred to the ICU for further care. She grew *E. coli* in blood cultures and was started on antibiotics and pressors. On day 2 in the ICU, the patient complained of chest pain aggravated by deep breaths, associated with shortness of breath. Initial troponin was 2.05 ng/mL, with no ischemic changes on EKG. Repeat troponins increased to 4.67 ng/mL, peaking at over 80 ng/mL. Repeat EKG showed ST elevations in leads I, aVL, II, aVF, V4, V5, V6. Transthoracic echocardiography (TTE) revealed a normal left ventricular (LV) cavity size with LV ejection fraction (EF) at 21 - 25%, global cardiomyopathy, and akinesis of the inferior segments. Coronary angiography showed normal coronaries. Repeat TTE on day 7, showed a LVEF of 46 - 50%.

DISCUSSION: Takotsubo Cardiomyopathy (TCM) is a reversible, acute heart failure triggered by stress, presenting akin to acute coronary syndromes. Coronary angiography reveals normal epicardial vessels with no obstruction. LVEF typically recovers in 6 – 12 weeks. In our patient, the emotional stress of losing another pregnancy in conjunction with the underlying physical stress of septic shock could have induced acute heart failure. Cardiac magnetic resonance imaging (cMRI), which was not performed in our patient due to her acuity, could have helped identify the etiology. PPCM although uncommonly seen in the 2nd trimester is high on the differential as the patient's race, advanced maternal age, history of hypertension, and multiple gestations make her high risk for PPCM. It is of importance to distinguish between the two entities as the treatment for PPCM involves long-term heart failure therapy and surveillance during future pregnancies.

CONCLUSION: Recognize the role of cMRI in the peripartum period to help differentiate Takotsubo cardiomyopathy from PPCM.

POSTER # 38

A Problem Endemic to New York City Associated with a Bacterial Disease That Is Not Reported Enough. A Case of Rat Bite Fever

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BACKGROUND: Rat bite fever is a rare and underdiagnosed zoonotic disease. It is a bacterial infection caused by *S. moniliformis* transmitted through animal exposure, especially rodents. *S. moniliformis* is difficult to grow in culture; therefore, diagnosis is typically based on clinical suspicion (e.g., high likelihood of rodent exposure) and rule-out of other causes. It typically presents with systemic symptoms like fever, vomiting, myalgia, migratory arthritis, and headache, along with local wound infection with no regional adenopathy. It is usually treated empirically. Here we present a case of rat bite fever that was quickly diagnosed upon collection of a detailed history.

CLINICAL VIGNETTE: A 53-year-old male presented with chills, generalized body pain, nausea, vomiting and epigastric discomfort for 1 day. He reported recent exposure to a mouse with a bite on his left upper extremity 3 days before presenting to the hospital. At the time of admission, he had a high-grade fever of 102.8'F with tachycardia and tachypnea. On examination, he had a small round ulcer (1 cm) with black necrotic tissue with no exudate or erythema on his left upper extremity. No rash was seen on his body. His blood work was significant for elevated C-reactive protein and procalcitonin highly suggesting sepsis. Since the patient did not have any rash, meningeal symptoms or joint pain, differential diagnoses including Lyme disease, rheumatoid arthritis and meningococcemia were ruled out. COVID and influenza A/B were negative. He was admitted to the hospital with a diagnosis of sepsis due to cellulitis of the left arm secondary to rat bite. Blood cultures were drawn, and he was started on empiric antibiotic Ampicillin/Sulbactam. Blood cultures did not show any growth. Patient improved clinically after empiric treatment. He was discharged on Doxycycline for a total of 14 days.

CONCLUSION: Diagnosing rat bite fever can be challenging as it can have a similar presentation to other diseases like rheumatoid arthritis, Lyme disease, disseminated gonorrhea, and meningococcemia. If left untreated, a rash on the extensor surface of hands and soles may develop. Rash can be maculopapular, petechial, or hemorrhagic. The most common complication is endocarditis, but bacteremia, meningitis, myocarditis, pneumonia and focal abscess, septic arthritis, osteomyelitis and multiorgan failure leading to fulminant sepsis may also occur. This case report illustrates the importance of a detailed history and physical exam, especially in areas like New York City, where rat infestation is not uncommon. Early diagnosis can help in treatment and prevention of life-threatening complications.

POSTER # 39

Multiple Pulmonary Nodules in a Patient with Multiple Sclerosis

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INTRODUCTION: Fingolimod (Gilenya), the first effective disease- modifying oral agent for the treatment of relapsing multiple sclerosis (MS) in 2010. It is a sphingosine-1-phosphate receptor modulator, which sequesters lymphocytes in lymph nodes, preventing them from contributing to an autoimmune reaction. Although peripheral lymphopenia was reported in clinical trials, the incidence of infections related to lymphopenia was unknown.

CASE DESCRIPTION: A 51-year-old female was admitted for dry cough with bilateral pulmonary nodules. She was diagnosed with stage IIIA/ Grade 2 endometrial cancer in June 2012 for which she underwent total abdominal hysterectomy and bilateral salpingo-oophorectomy and completed chemotherapy in November 2012. Since then, yearly CT scans of the chest, abdomen, and pelvis, which were all normal except until 2020, when pulmonary nodules were seen. Percutaneous needle biopsy of a lung lesion in July 2021 showed small fragments of lung parenchyma, with no evidence of malignancy. A repeat chest CT in Oct 2021 showed interval increase in size of the bilateral pulmonary nodules with cavitation. Subsequent PET scan showed multiple hypermetabolic pulmonary nodules, some of which were cavitary, raising the possibility of concurrent infection. The patient denied fever, weight loss, headache, nausea, or vomiting. Past medical history is significant for relapsing MS which has been stable since 2011. Physical examination was unremarkable. The leukocyte count was 4000/mm^3 with 4% lymphocytes and the complete metabolic panel was normal. Video-assisted thoracic surgery (VATS) and right upper lung wedge resection were done. Pathology showed multiple nodules filled with yeast forms which exist in small, alveolar spaces with surrounding mucoid-like material. There was no evidence of malignancy. Tissue cultures grew *Cryptococcus neoformans var grubii*. Serum cryptococcal antigen was 1:320 but cerebrospinal fluid (CSF) studies were negative CSF cryptococcal antigen. HIV serology was non-reactive. Treatment with fluconazole 800 mg oral daily was started for pulmonary cryptococcosis. The detailed medication history was reviewed, and it was discovered that the patient had been taking fingolimod for relapsing MS for 10 years. The diagnosis of pulmonary cryptococcosis due to fingolimod therapy was made.

DISCUSSION: Our case illustrates the potential for opportunistic infections with use of fingolimod and the importance a thorough medication history. Although the incidence of pulmonary and disseminated cryptococcosis in MS patients taking fingolimod is unknown, there is an increased risk of opportunistic infections with longer duration of therapy. Clinicians should be aware of this entity, as early diagnosis and treatment can improve the outcome of opportunistic infections.

POSTER # 40

Rapidly Growing Non-Tuberculous Mycobacterial Infection of a Prosthetic Hip Joint

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INTRODUCTION: Non-tuberculous mycobacteria (NTM) refer to any mycobacterial pathogens other than *Mycobacterium tuberculosis* or *leprae* and include over 190 different species which are widely distributed in the environment, water, soil, and dust. NTM pulmonary and extra-pulmonary infections are increasing globally and can potentially cause severe disease in immunocompromised hosts. NTM can be classified as slow or rapid growing based on interval of growth on solid media. We present a case of rapid growing NTM infection affecting a prosthetic hip joint, requiring aggressive surgical intervention and prolonged administration of antimicrobials due to its difficult eradication.

CASE DESCRIPTION: A 66-year-old man presented with a 3-week history of left hip pain, as well as progressive difficulty to ambulate. His medical history included former intravenous heroin abuse and hepatitis C which was treated. He had an uncomplicated left total hip arthroplasty (THA) for ten years. Examination revealed inability to bear weight on the left lower extremity. Radiographic imaging of the pelvis showed lucency around the superolateral aspect of the acetabular component suggesting mechanical loosening. The patient underwent revision of the left THA with removal of the femoral stem. He re-presented one-month post-procedure with a 3-day history of drainage from the left hip wound and inability to ambulate. Irrigation and debridement was performed. Tissue specimen showed 1-2 acid fast bacilli (AFB) and subsequently, there was reported growth of AFB in liquid culture media on day 6. Intravenous cefoxitin, imipenem/cilastin, eravacycline, and azithromycin were started for presumptive diagnosis of prosthetic joint infection due to rapidly growing NTM.
Further investigation revealed that an outpatient arthrocentesis culture, prior to left THA revision, grew *Mycobacterium abscessus* subsp. *abscessus* with inducible clarithromycin resistance. Two-stage revision arthroplasty was recommended but the patient refused. After receiving multi-drug regimens for one month, his surgical wound dehisced, and he underwent complete removal of the hardware and placement of an antibiotic impregnated spacer and beads. He will remain on combined antibiotics therapy for months and is anticipated to get prosthesis reimplantation after eradication of infection.

DISCUSSION: Rapidly growing environmental NTM, such as *Mycobacterium abscessus* subsp. *abscessus,* is an uncommon but recognized cause of difficult-to-eradicate implant-associated infection. The results of its treatment can be unpredictable due to the intrinsic resistance to many antibiotics. Physicians should be particularly aware of NTM, especially in the setting of negative bacterial cultures, since failure to identify these organisms can lead to treatment failure, increased morbidity and prolonged hospital stays.

POSTER # 41

Mycobacterium Tuberculosis Complex Bacteremia (Mycobacteremia) in a Patient with Newly Diagnoses Advanced HIV

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INTRODUCTION: Miliary or disseminated tuberculosis results from the hematogenous spread of *Mycobacterium tuberculosis,* which is a leading cause of death in HIV infected individuals. Deterioration of CD4+ T cells and increasing susceptibility to primary tuberculosis infection or reinfection are two mechanisms for increased risk of HIV related disseminated tuberculosis. Diagnosis of disseminated tuberculosis is difficult due to a paucity of signs and symptoms and the similar presentations to other diseases. We present a case of mycobacteremia in a patient newly diagnosed with advanced HIV.

CASE DESCRIPTION: A 34-year-old man with no past medical history presented with fever, twenty-pound weight loss, and dysphagia for one month. He emigrated from Haiti 3 years prior, worked as a construction worker and had a history of heavy alcohol use. On admission, the temperature was 103 degrees Fahrenheit, heart rate 131 beats per minute, respiratory rate 22 per minute with a BMI of 16.7 kg/m2. The clinical examination was unremarkable except for bilateral axillary and inguinal lymphadenopathy. The leukocyte count was 6400 KU/L, hemoglobin 11.9GM/DL, LDH 450 IU/L, and normal alkaline phosphatase. A 4th generation HIV test was reactive, and the CD4 cell count was 20 /UL. The chest X-ray was unremarkable, CT scan of the chest showed bilateral axillary, right hilar and retroperitoneal adenopathy.

Sputum samples for acid fast bacilli were positive. Lymph node biopsy revealed micro abscesses with acute suppurative infection and acid-fast bacilli by fluorochrome stain. The patient did not consent to a lumbar puncture. The patient was treated with isoniazid, rifampin, ethambutol, and pyrazinamide. A repeat chest radiograph after one week of hospitalization showed a diffuse micronodular pattern, upper lobe predominance, and right hilar adenopathy consistent with miliary tuberculosis. Blood cultures for acid fast bacilli were positive for *Mycobacterium tuberculosis* complex (MTB complex) at three weeks. He was transferred to another institution on hospital day 44 for continued inpatient treatment. Antiretroviral therapy had not been started.

DISCUSSION: This case illustrates that disseminated mycobacterial disease is a potential risk in advanced HIV patients who present with a normal chest radiograph and CT. Although mycobacteremia is a rare occurrence, obtaining blood cultures for acid-fast bacilli may be helpful in establishing a diagnosis in severely immunocompromised patients.

POSTER # 42

Case of Autoimmune Hemolytic Anemia Secondary to Acute COVID-19 Infection

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INTRODUCTION: Autoimmune hemolytic anemia (AIHA) is characterized by the presence of anti-erythrocyte autoantibodies causing extravascular hemolysis and anemia with or without complement activation. COVID-19 infection has been associated with the development of AIHA. We report a case of anti-C3 associated hemolytic anemia in a COVID-19 patient with no significant past medical history who responded well to glucocorticoids.

CLINICAL PRESENTATION: 59-year-old Cuban immigrant with no past medical history presented with worsening fatigue, myalgia, dyspnea, dry cough, dizziness, & urine darkening for 15 days. He denied rashes, easy bruising, flank pain, fevers, or overt bleeding. Medications included occasional over-the-counter ibuprofen. His wife had returned from a trip to Cuba with a nonspecific viral illness a week prior to his symptom onset. Both, patient and his wife, had tested negative for COVID-19 at that time. He had not been vaccinated against COVID-19.

DIAGNOSIS: Anti-C3 mediated hemolysis secondary to COVID-19.

MANAGEMENT: 2 units of red blood cell transfusion for hemolytic anemia. Remdesivir for 5 days and COVID-19 pneumonia. IV Methylprednisolone 50mg q12h for 2 days followed by prednisone 1mg/kg daily until hemoglobin > 10 mg/dl. Further tapering to prednisone oral 10 mg weekly after hemoglobin >10 mg/dl.

DISCUSSION: The relationship between COVID-19 infection and AIHA has been attributed to the development of a hyperinflammatory syndrome causing cytokine storm. Both warm & cold autoantibodies have been implicated in COVID-19 associated AIHA. Complement activation may contribute to the disease severity as is evident by the occurrence of paroxysmal nocturnal hemoglobinuria (PNH), AIHA & hemolytic uremic syndrome (HUS) in COVID-19 patients. The time of onset of AIHA is variable; however, most cases are diagnosed in the first 2 weeks of infection. Hemolytic exacerbations associated with COVID-19 infection are more severe & are associated with greater morbidity & mortality, as compared to those after COVID-19 immunization. Management includes transfusions, complement inhibitors in PNH, steroids/rituximab in AIHA, plasma exchange, hemodialysis & complement inhibitor in atypical HUS. Anti-thrombotic prophylaxis should be administered unless contraindicated.

CONCLUSION: The disease severity of COVID-19 associated AIHA ranges from asymptomatic to a fatal disease. Early recognition & treatment are critical to prevent bad outcomes. Patient education regarding recognition of signs & symptoms of hemolysis is imperative. COVID-19 immunization is reported to reduce the morbidity & mortality associated with AIHA associated with COVID-19.

POSTER # 43

Endogenous Endophthalmitis An Emergency

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CASE: A 50-year-old male with a past medical history of uncontrolled type 2 diabetes mellitus presented with fever, cough, and shortness of breath for 3 days. He came to the Emergency Department and was found to have a lobar consolidation on a chest X-ray. Sputum cultures grew MSSA. He was treated with Piperacillin-Tazobactam. On day 5 of hospital admission, he felt mild redness, pain, and itching develop to his right eye which worsened in the next 24 hours and became associated with visual impairment. The eye was examined by Ophthalmology and findings of decreased vision, redness, swelling, and vitreous haze were consistent with Endophthalmitis. He received intravitreal Vancomycin and Ceftazidime and systemic Piperacillin-Tazobactam. On day 7, he developed similar symptoms in the left eye with findings of endophthalmitis and received the same treatment in his left eye also. Unfortunately, Vitreous cultures were not obtained, and his blood cultures remained negative. After having intra-ocular injections, his vision and eye symptoms gradually improved. On 3 months follow-up the patient showed no signs of infection with a best-corrected vision 20/60.

DISCUSSION: Endogenous endophthalmitis accounts for 2-8% of cases of endophthalmitis. Clinical features consist of decreased visual acuity, floaters, and vitreous haze. Bacterial EE is usually unilateral. Bilateral involvement has been reported in just 12% to 14% of circumstances. The diagnosis is clinical and is supported by positive cultures of the vitreous/aqueous fluid or positive blood cultures. However, a negative blood culture, as in our patient, does not exclude the diagnosis. In one series almost half of the cases with endogenous endophthalmitis had clinical symptoms of an underlying infection at the time of presentation, about 75% of patients had positive blood cultures and 25 % with negative blood cultures like our case. The transient bacteremia resulting from underlying infections leads to the intra-ocular invasion. The pathogens get into internal ocular structures through the blood-ocular barrier. EE can progress rapidly and carries a poor prognosis; hence treatment needs to be initiated urgently. The mainstay of treatment is intravitreal administration of antibiotics in conjunction with systemic antibiotics. The role and timing of other treatment modalities, including vitrectomy, are still unclear.

CONCLUSIONS: EE is a rare but severe form of ocular infection with a poor prognosis if not treated emergently. Quick and accurate diagnosis supplemented by prompt treatment with intravitreal antibiotics is key to preserving the vision in patients with endogenous endophthalmitis.

POSTER # 44

COVID 19 Exacerbates Idiopathic Thrombocytopenia (ITP) in Patient with Underlying Rheumatoid Arthritis

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BACKGROUND: Thrombocytopenia is commonly seen in COVID-19 positive patients with proposed mechanisms including complement activation, consumptive coagulopathy, and direct bone marrow suppression. Cases of idiopathic thrombocytopenia (ITP) being exacerbated by COVID-19 infection, have occurred, although rare. Previous studies by Kamal et al. found that of the patients with thrombocytopenia “20% patients also had a previous history of autoimmune disease (polymyalgia rheumatica and autoimmune hypothyroidism, and two with chronic ITP)[2]. The overall diagnosis, treatment, and prognosis of ITP superimposed on COVID-19 on patients with underlying autoimmune diseases poses a need for further studies to determine the mechanism by which COVID-19 causes thrombocytopenia and the effect of pre-existing ITP and other autoimmune conditions.

CASE REPORT: A 66 y.o. male came to the ED after experiencing an episode of melena, after work up he was admitted for lower gastrointestinal bleeding and incidentally was found to be COVID-19 positive. He has a past medical history of rheumatoid arthritis on hydroxychloroquine, liver cirrhosis, hypotension, thrombocytopenia (baseline 30k), chronic kidney disease. CBC indicated a hemoglobin of 9.8, WBC of 7.1 and platelet count of 5k. No schistocytes or platelet abnormality seen with peripheral blood smear. Additional labs demonstrated a PTT/INR of 35.1/1.29, fibrinogen of 309, D-dimer of 3257, and BUN/SCr of 103/5.4. The patient was diagnosed with ITP and was given desmopressin and 2unit of platelets within the first 6 hours of admission, resulting in an improved platelet count to 7k. Intravenous Immune-globulin G (IVIG) and prednisone 60 mg was initiated and an additional unit of fresh frozen plasma (FFP) was given resulting in platelet increase to 14k then to 22k. Patient required a total of 8-doses of IVIG with prednisone to maintain the platelet count above 30k. The patient’s symptoms resolved and was subsequently discharged. After three weeks at follow-up appointment the patient's platelet count remained above 60k on prednisone treatment.

CONCLUSION: This case presents a patient with previous autoimmune disorder and diagnosed with ITP secondary to hypersplenism, undiagnosed chronic ITP and exacerbated by COVID-19 infection. Reports in the literature have detailed COVID-19 causing a significant drop in platelets with brisk peripheral destruction, leading to subsequent diagnosis of de novo or exacerbated ITP. It appears that ITP diagnosis is more likely in the setting of prior known autoimmune disease, as in the patient presented here. Additional research will be required to elucidate the specific mechanism involved.

POSTER # 45

Mimicry of Sepsis-Induced DIC: HLH Syndrome with High Fibrinogen Level

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INTRODUCTION: Hemophagocytic lymphohistiocytosis (HLH) is a life-threatening hyperinflammatory syndrome that can be triggered by autoimmune disease, neoplasm, and infection. Estimated HLH occurrence rate is between 1 and 10 persons per 1,000,000, however, these numbers are possibly underestimated due to misdiagnosis as sepsis. While both conditions encompass similar pathology, the treatment for HLH requires aggressive immunosuppression. Here we present a case of HLH syndrome with elevated fibrinogen level mimicking sepsis-induced DIC, delaying timely diagnosis.

DESCRIPTION: A 47-year-old male presented with hypoxemia and lethargy. He initially improved on non-rebreather mask but was later intubated as his mental status worsens. The patient's history was significant for intellectual delay, CKD, seizure disorder, cerebral palsy, and pancytopenia. In the ED, he was hypotensive, tachycardic and febrile. Labs were remarkable for pancytopenia , elevation of PTT, INR, fibrinogen, D-Dimer, creatinine, and HAGMA due to lactic acidosis. Urinalysis was negative for infection. Imaging revealed intramuscular hematoma of the right thigh and splenomegaly. Right femoral line was placed for vasoactive drips, IV fluids, and broad-spectrum antibiotics. Pan cultures were obtained which resulted in no growth. There were no signs of active bleeding. The diagnosis of septic shock secondary to an unknown source and sepsis-induced DIC was suspected. Patient received transfusions of packed red blood cells, fresh frozen plasma, platelets, and cryoprecipitate throughout the hospital course. Despite aggressive measures, the patient had minimal improvement. The sepsis-like clinical features were highly suggestive of HLH with high fibrinogen levels. Based upon the poor prognosis and multiple advanced comorbidities, the patient was started on comfort care measures and later expired.

DISCUSSION: HLH syndrome can present similarly to sepsis due to overlapping diagnosis criteria. Our patient was initially misdiagnosed as sepsis-induced DIC based on pancytopenia. However, elevated triglycerides and unresponsiveness to antibiotics and transfusions pivoted the diagnosis towards HLH. This case highlights the importance for physicians to consider HLH in patients presenting with sepsis-like profiles while not responding to sepsis treatment.

POSTER #46

What Killed Mrs. Jane Doe?: Overview to Vascular Microthrombotic Disease

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BACKGROUND: Thrombotic Thrombocytopenic Purpura (TTP) is a life-threatening condition affecting 2 persons/million/year. Clinical management of vascular microthrombotic disease is challenging because of defining clinical and pathologic abnormalities. Diagnosis is made by clinical features, thrombocytopenia, and microangiopathic hemolytic anemia (MAHA), without an alternative explanation. Assessment of these coagulopathies requires a meticulous evaluation of predisposing conditions, overall clinical status, and prompt action. We present two cases of a classic and an unconventional TTP case.

CASE-1: A 33-year-old male, with no medical history, was evaluated for AMS and constitutional symptoms. Family history was non-contributory. No history of recent immunizations. Lab showed MAHA with thrombocytopenia. Direct Coomb's was negative with normal fibrinogen, acute kidney failure and elevated D-dimer, LDH, total-bilirubin, and reticulocyte count. Elevated PT/INR/PTT (15.5secs/1.3/4.8secs) and CRP (46mg/dL), and negative ANA also noted. Patient had PLASMIC score of 6, lab showed ADAMTS13 deficiency (<0.03IU/mL), and presence of anti-ADAMTS13 inhibitor. Plasmapheresis was started.

CASE-2: A 65-year-old female evaluated for AMS, sudden right-facial palsy, and hemiparesis. Medical history is non-contributory with unknown immunization status. Thrombolytic therapy was administered for acute stroke, was intubated, and underwent thrombectomy. During hospitalization, platelets steadily dropped. She was diagnosed with TTP. Labs showed thrombocytopenia (45K/uL), Coomb's negative, MAHA (Hemoglobin of 6.6g/dL with 1+schistocytes), and low C3. ADAMTS13 deficiency (0.52IU/mL) with elevated reticulocytes, lactate dehydrogenase, D-dimer, BUN/Creatinine, and total-bilirubin. PLASMIC score was 4. Plasmapheresis was performed. ANA 1:40, UA: gross hematuria, bacteriuria with negative bilirubin, acute kidney injury, normal fibrinogen and total bilirubin, slightly elevated PT/INR: 13.0secs/1.1, low PTT (22.3secs), elevated ESR, CRP, and procalcitonin, and negative SCL 70 Ab. Patient expired before ADAMSTS13 resulted.

CONCLUSION: Diagnosing TTP is challenging given the rarity, high-mortality, and precise cause. ADAMTS13 results may take days, leaving physicians to diagnose and treat based on clinical findings and routine labs. TTP is diagnosed based on the presence of thrombocytopenia and MAHA, with/without severe-end-organ damage. TTP and MAHA may be seen in other diseases including Hemolytic Uremic Syndrome (HUS), DIC, infection, severe hypertension, or malignancy. ADAMTS13 is important for effective diagnosis. In its absence, PLASMIC clinical scores help determine ADAMTS13-deficiency. Our patients had elevated scores and received plasmapheresis. Case 2 was "Complement-mediated atypical HUS (aHUS)" masqueraded as TTP. Complement-mediated aHUS is a thrombotic microangiopathy which mimics TTP. Diagnosis of aHUS is supported by the presence of thrombocytopenia, hemolytic anemia, renal failure, low C3, and ADAMTS13 >0.10, making TTP less likely. Ineffective response to plasmapheresis further supported the diagnosis of aHUS.

POSTER # 47

May-Thurner Syndrome (MTS): A Rare Cause of Recurrent DVT

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INTRODUCTION: The work-up of recurrent unprovoked DVT involves testing for thrombophilia, age-appropriate cancer screening, and medication review. We present a case of a rare anatomical variation leading to DVT.

CASE PRESENTATION: 42-year-old obese, non-smoking male with history of bilateral LE DVT and pulmonary embolus (PE) (7 years ago) presented with acute onset LLE pain, swelling, and purplish discoloration with mild shortness of breath. Of note, he had sustained a left foot fracture and was immobilized for the past couple of months. On the exam, distal pulses were palpable. A duplex scan revealed an occlusive thrombus extending from the popliteal vein (PV) to the external iliac vein (EIV). CTA of the chest revealed bilateral PE without right heart strain. He was started on a heparin drip and underwent endovascular percutaneous mechanical thrombectomy. LLE venogram showed improved flow through the popliteal and distal femoral veins, but an area of compression was noted at the common iliac vein (CIV). Subsequent intravascular ultrasound confirmed compression of the CIV of more than 80%, along with chronic scarring of the EIV. Venoplasty of the common femoral vein (CFV), EIV, and CIV on the left side was performed using a Boston Scientific XXL 14-mm balloon. Repeat venogram showed persistent stenosis secondary to the compression in the CIV as well as the EIV. The CIV and EIV were stented using two subsequent stents. Repeat venogram at this point showed improvement of flow through the EIV and CIV. Patient was started on Xarelto and discharged the next day. At present, he follows up with our hematology clinic, where his work-up was negative for thrombophilia. He will be on indefinite anticoagulation, as with two events, the risk of recurrence outweighs the risk of bleeding from anticoagulation.

DISCUSSION: May-Thurner syndrome is a left common iliac vein thrombosis secondary to compression by an overriding right common iliac artery. The chronic pulsatile stimulation of the artery irritates the endothelium of the vein leading to the formation of “bands” or “spurs,” which become the nidus for clot formation. In our patient, prolonged immobilization due to his fracture could have precipitated clot formation. Management revolves around appropriate imaging and catheter-directed thrombolysis and stenting.

CONCLUSION: Recognize MTS as an underdiagnosed cause of recurrent iliofemoral DVT with negative thrombophilia work-up.

POSTER #48

Catheter-Directed Thrombolysis: Treatment of Acute Portal Vein Thrombosis

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INTRODUCTION: Portal vein thrombosis (PVT) is a well-defined cause of portal vein obstruction. It affects both children and adults and can lead to several complications. Among complications include the development of portal hypertension, ischemic bowel, and bleeding from esophageal or gastric varices. The reported incidence of thrombosis is 0.6-16% in well-compensated cirrhosis patients. The role of inherited thrombophilia (such as Factor V Leiden mutation and prothrombin 20210 gene mutation) in the pathogenesis, remains uncertain. Patients are believed to be most at risk for progression to bowel infarction and other complications that has high related morbidity and mortality rates.

CASE REPORT: 42-year-old morbidly obese male smoker with past medical history of prothrombin gene mutation, bilateral provoked pulmonary embolism (PE) in 2017, noncompliant with his anticoagulation (AC), secondary erythrocytosis presented initially with generalized abdominal pain, nausea, vomiting and diarrhea. CT showed signs of early bowel ischemia due to portal vein thrombosis. Abdominal U/S performed was consistent with CT abdomen showing no Doppler flow through portal vein. Patient was electively intubated and received TPA and placed on a Heparin drip. Patient went for small bowel resection and then anastomosis due to worsening of lactic acidosis. Repeat images showed persistent portal vein thrombosis. Three IR catheter-directed thrombectomy and thrombolysis procedures were performed. Patient still had residual thrombus and underwent IR thrombolysis again with apparent resolution of thrombus. TPA was discontinued and continued on heparin drip. After that, patient underwent portal venogram with thrombolysis however there was still residual thrombus. He then further underwent IR thrombolysis again with apparent resolution of thrombus. TPA was discontinued and continued on heparin drip. Patient ICU course was complicated by persistent fevers and anasarca. Differential for the fevers include thrombus burden and infectious etiologies. Treated was initiated with broad spectrum antibiotics and Micafungin. Patient remained in ICU and subsequently got a tracheostomy and improved slowly. Patient was later discharged to rehab on anticoagulation.

DISCUSSION: The management of PVT depends on many factors such as the extension of thrombus, presence or not of bowel ischemia and infarction, and the general condition of the patient. The primary goal is to re canalize the affected veins to prevent secondary complications and further extension of thrombus. The treatment of portal vein thrombosis has evolved with the use of anticoagulation, surgical techniques, systemic thrombolysis and Catheter-directed thrombolysis combined with anticoagulation. The Trans jugular intrahepatic portosystemic shunt (TIPS), although technically more challenging is also an acceptable second option.

POSTER #49

Massive Pericardial Effusion in a Young Female: Rare but Serious Initial Presentation of Lupus

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BACKGROUND: Systemic lupus erythematous (SLE) is a chronic autoimmune disease that is characterized by multisystem involvement. SLE can affect the heart structurally by impacting the pericardium, myocardium, endocardium and valves. Large symptomatic pericardial effusion as an initial presentation of SLE is considered rare in both children and adults. This type of early and severe serosal involvement in SLE has been described in few case reports. The epidemiologic, laboratory, and clinical risk factors for large pericardial effusion as initial presentation of SLE remains poorly characterized. Here we described a patient with large, symptomatic pericardial effusion as an initial presentation of SLE.

CASE PRESENTATION: A 34-year-old female with a history of iron deficiency anemia presented with acute onset of sharp episodic chest pain and shortness of breath. Over the past month she noticed intermittent lower extremity swelling, joint pain around her fingers and ankles, and intermittent hand swelling, along with ten pounds of unintentional weight loss. She denied morning stiffness, fever, chills, rash, photosensitivity, oral or genital ulcers. Her family medical history was significant for Graves' disease in her mother. On physical exam she was found to be tachycardic with jugular vein distention to the mandible. Initial labs were notable for pancytopenia (White Blood Cell Count 3.4× 10^3/mL, Hemoglobin 7.4 g/dL, Platelets 146,000/mL) and hypoalbuminemia (<2 g/dL). An echocardiogram revealed large (~3 cm) pericardial effusion without diastolic right heart collapse. Fluoroscopic-guided pericardiocentesis was performed with a total drainage of 620 cc of straw-colored pericardial fluid. Further workup showed nephrotic range proteinuria, very low complement levels (C3:14, C4: <5), positive antinuclear antibody (> 1:1280), very high anti-double stranded DNA antibody (464), and negative rheumatoid factor. In addition, the patient underwent kidney biopsy and was found to have lupus nephritis class IV. She was started on mycophenolate and IV steroids that transitioned to oral before discharge.

CONCLUSION: Serous membrane involvement including pericarditis, pleuritis, and peritonitis, is a well-known finding in SLE. Large pericardial effusion and cardiac tamponade are rare initial presentations of the disease. Cardiovascular complications are an important cause of morbidity and mortality in patients with SLE, which makes understanding the risk factors associated with this subset of patients important. A further systematic review describing what laboratory, historical, and epidemiologic factors correlate with the greatest risk of developing large pericardial effusion or tamponade among patients with SLE would be an important addition to the current literature and understanding of cardiac involvement in SLE.

POSTER # 50

COVID–19 Pneumonia Reactivating Tuberculosis

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SARS-CoV-2 (COVID-19) is a new pathogen that has greatly affected world populations. This virus has been added to the family of respiratory pathogens that spread quickly and aggressively through the host organism. Within the family of respiratory pathogens with a global impact, Tuberculosis (TB) continues to be the leading cause of death from a single infectious organism. Since April 2020, the SARS-CoV-2 virus has caused daily worldwide deaths numbers matching and surpassing TB. We present a case of reactivation of latent TB in the setting of COVID-19 pneumonia.

A 74-year-old Han Chinese female who emigrated from Vietnam with a past medical history of hypertension, diabetes mellitus and gout. She presented to the Emergency Department in December 2020 with cough and shortness of breath for one day. She was febrile and hypoxemic with an oxygen saturation of 88% on room air. She had a positive COVID PCR and IgG as well as raised inflammatory markers consistent with clinically acute COVID-19 pneumonia. She was placed on high dose corticosteroids, Remdesivir, and anticoagulation for the treatment. She continued to show worsening respiratory status, requiring escalation of oxygen therapy from nasal cannula to high flow nasal cannula (HFNC). She had two cardiac arrests fourteen days after admission due to hypoxic respiratory failure while on HFNC requiring intubation. CT scan of the chest showed a new cavitary lesion in the right upper lobe, concerning for malignancy or tuberculosis. Multiple follow up MTB PCR and AFB smears were positive; she was placed on rifampin, isoniazid, pyrazinamide, and ethambutol (RIPE) for treatment. She was extubated five days after intubation and placed on HFNC. She was weaned off oxygen prior to discharge and continued on RIPE therapy for nine months.

This case highlights that reactivation of TB has occurred with COVID-19 infection and to draw attention to the importance of possibly testing patients with COVID-19 infection who have risk factors for TB including patients coming from TB endemic regions. The immune dysregulation and additional immunosuppressive medications used to mitigate the clinical course of COVID-19 pneumonia may lead to TB reactivation or worsen the clinical outcome if co-infection occurs. If patients with COVID-19 are following an unusual respiratory course and have risk factors for TB, consideration should be given to the possibility of TB reactivation.

POSTER # 51

Management of a Cystic Fibrosis Exacerbation with Underlying Congenital Central Hypoventilation Syndrome

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BACKGROUND: Congenital central hypoventilation syndrome (CCHS), also known as Ondine's Curse, is a rare disorder characterized by sleep apnea, hypoxemia, and hypercapnia that is typically diagnosed in the neonatal period. It is fatal without mechanical ventilation and its pathophysiology remains clear. Here, we describe a rare case of a cystic fibrosis exacerbation in the setting of CCHS and highlight our management approaches.

CASE DESCRIPTION: A 32-year-old female with a history of CCHS and cystic fibrosis diagnosed at birth presented for worsening shortness of breath. She reported recent increasing frequency and severity of mucous plugging with intermittent hypoxemia. A tracheostomy and a diaphragmatic pacemaker was placed at 3 and 22 months of age, respectively, and she has been ventilator-dependent since then. Physical exam demonstrated normal diaphragmatic excursions and diffuse, mild rales with equal breath sounds bilaterally. The tracheostomy site had an odorous discharge with no evidence of bleeding, pustulence, or airway leakage. Chest x-ray confirmed tracheostomy placement and demonstrated reticular opacities consistent with cystic fibrosis without focal consolidations.

She was admitted to the medical ICU for evaluation of urgent bronchoscopy. However, given her hemodynamic stability and iatrogenic risks of bronchoscopy, the decision was made to defer invasive bronchoscopy in favor of a conservative approach. An aggressive chest physiotherapy regimen was started with intrapulmonary percussive ventilation. In addition, cystic fibrosis directed pharmacologic treatment with elexacaftor/tezacaftor/ivacaftor, bronchodilators, inhaled hypertonic saline, and empiric intravenous antibiotics with vancomycin and cefepime were initiated. Sputum cultures were significant for MRSA bacterium. Despite this, she had major improvement in respiratory symptoms without bronchoscopic evaluation and was discharged home with a 2-week course of intravenous antibiotics.

DISCUSSION: Though CCHS is associated with increased risk of neural-crest derived tumors, there are no reported cases in the literature reporting its association with cystic fibrosis. Given our patient's risk of decompensation from her cystic fibrosis exacerbation and concurrent CCHS, an urgent bronchoscopy was considered. However, the risks of iatrogenic injury such as pneumothorax and pneumonia exacerbation in a patient who had been both ventilator and pacemaker-dependent for 30 years outweighed any immediate benefits. Here, a combination of pharmacologic therapy and chest physiotherapy proved to be successful in improving her respiratory symptoms and cystic fibrosis exacerbation without the need for invasive intervention.

CONCLUSION: Management of cystic fibrosis exacerbations in the setting of congenital central hypoventilation syndrome poses a clinical challenge, but non-invasive approaches as described here, may prove to be successful.

POSTER # 52

A Case of Prurigo Pigmentosa after Religious Fasting

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ABSTRACT:

A relatively new diet known as the ketogenic diet, one that restricts both carbohydrates and proteins to an extreme extent, has become very popular for its effects on weight loss. While it is popular in this regard, ketogenic diets are encountered in many other instances. For example, they are used in diets of those with epilepsy and cancer.[5] States of ketosis are also encountered during periods of fasting and diabetic ketoacidosis. With the increasing use of the ketogenic diet, the emergence of a rash known as Prurigo Pigmentosa (PP) has been well characterized. PP is a pruritic eruption with confluent reticulated hyperpigmented papules and vesicles on the chest, neck and back. This case reports a 24-year-old woman who had an eruption of this iconic rash after a few week period of religious fasting. Ketone buildup in the skin has emerged as the pathogenesis of this eruption and treatment includes resuming a well-balanced diet. PP may be of relevance since it is becoming more prevalent with the increasing use of ketogenic diets as well as because different forms of ketosis show up across the globe whether intentionally via diet or unintentionally for medical reasons.

POSTER # 53

Diagnosis of Retropharyngeal Calcific Tendinitis in the Emergency Room

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BACKGROUND: Headache is a common complaint accounting for up to 4% of emergency department (ED) visits[1]. Headaches can be divided into primary, non-organic and secondary, organic causes[7]. Most patients present to the ED with primary headaches. The etiology of secondary headaches are broad and not limited to: infection, post-traumatic, space occupying lesions, intracranial hemorrhage, environmental poisoning[2,7]. In this case report, we discuss retropharyngeal calcific tendinitis (RCT).

CASE REPORT: A 36-year-old female presents to the ED for evaluation of headache and neck pain that began 2 days ago. The patient woke up with a severe headache; located in the occipital area, described as sharp and radiated down her neck. Headache improved during the course of the day but changed into severe, posterior neck pain that was worsened by neck movement. The vital signs were as follows: temperature 36.7°C, heart rate 102, respiratory rate 20, blood pressure 124/74, oxygen saturation 98%. On physical examination, the patient was alert and oriented with mild distress. Neurological examination was unremarkable. The patient had neck stiffness and painful range of motion; Kernig and Brudzinski signs were negative. There were no oropharyngeal abnormalities. Laboratory findings were notable for white blood cell count of 11,540, direct bilirubin of 0.39, total bilirubin of 3.1, CRP of 36. Computed tomography (CT) of brain without contrast shows no acute intracranial hemorrhage, territorial infarction, mass effect or hydrocephalus. CT of neck and soft tissues with contrast shows ill-defined area of mineralization in the prevertebral soft tissues at C2-C3 with increased attenuation and thickening of the retropharyngeal space. Findings are nonspecific and favored to reflect calcific tendinitis of the longus colli muscle with retropharyngeal effusion.

CONCLUSION: RCT is an uncommon cause of headache and neck pain that can mimic meningitis, retropharyngeal abscess, disc herniation, or neoplasm[6,9,10]. RCT is thought to develop from immune system activation that results in calcium hydroxyapatite deposits in the longus colli muscle which causes an inflammatory response[4]. Repetitive trauma, degeneration of the long colli tendon, dystrophic calcification, and vascular ischemia are suspected etiologies[4,8]. RCT is most commonly diagnosed in people aged 30 to 60 without a gender predisposition[8]. RCT is typically self-limited and resolves with NSAIDs in 1 to 2 weeks[5,6,9]. A short steroid course may also aid in rapid alleviation of symptoms[3]. In this case, we utilized diazepam in addition to NSAIDs for its muscle relaxant properties. Diagnosis of this condition in the ED may limit unnecessary interventions and reduce healthcare-related expenses.
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POSTER # 54

Zieve's Syndrome in a Patient with Alcoholic Liver Disease

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BACKGROUND: Zieve's Syndrome (ZS) is an under-reported cause of anemia among alcoholics. Described by Dr. Leslie Zieve in 1957, ZS is a triad of jaundice, hemolytic anemia and hyperlipidemia that develops due to alcohol-induced liver injury. We present a case of a 40-year-old male with history of chronic alcoholism who presented with exertional chest pain and found to have severe anemia with features compatible with Zieve's Syndrome.

CLINICAL VIGNETTE: A 40-year-old man with chronic alcoholism presented with two-week history of exertional chest pain associated with progressive shortness of breath and lower extremity edema.

Initial work up showed severe anemia with hemoglobin of 2.8, neutropenia, thrombocytopenia, deranged liver enzymes with hyperbiliubinemia and coagulopathy. He had elevated LDH, decreased haptoglobin and decreased corrected reticulocyte count. DAT was negative and peripheral smear showed dimorphic erythrocytes with normochromic and hypochromic RBCs, occasional tear-drop cells and acanthocytes. He had Triglycerides of 150mg/dL and total cholesterol of 195mg/dL. CT abdomen showed hepatosplenomegaly and moderate ascites. On physical examination, vital signs were stable, but the patient appeared lethargic with generalized jaundice, diffuse abdominal distention and marked peripheral edema.

The patient was managed with supportive treatment and received 4 units PRBC with improvement of anemia. EGD and colonoscopy were done which did not show any sources of GI bleeding.

Chronic alcohol use often causes conditions such as macrocytic anemia, alcoholic hepatitis and liver cirrhosis. The pathogenesis of anemia in alcoholics is multifactorial and can be caused by a combination of liver dysfunction, ineffective erythropoiesis and malnutrition. While not fully understood, the pathophysiology of hemolysis in ZS is attributed to the presence of abnormal lipids (possibly lysolecithin) which plays a role in hemolysis by disrupting RBC membrane. It is also suggested that Vitamin E deficiency secondary to alcohol use can result in pyruvate kinase instability leading to poor RBC metabolism and hemolysis. Symptoms typically resolve within 4-6 weeks with alcohol abstinence and conservative therapy.

Here we are presented with a patient with chronic alcoholism who fit diagnostic criteria of Zieve's syndrome based upon the history and the clinical triad. Elevated LDH, indirect bilirubin along with low serum haptoglobin and negative DAT may be consistent with hemolytic anemia but clinicians must be cautious in interpreting these values since they can expectedly be elevated or decreased (LDH, haptoglobin respectively) given the patient's underlying liver disease, with or without the presence of hemolysis and therefore making them difficult to interpret.

ZS is rarely reported but should always be suspected especially in the alcoholic population who develop severe anemia with no apparent explanation such as presence of a GI bleed. In this way, being aware of ZS can limit work up and help avoid unnecessary drugs that can potentially worsen the condition.

POSTER # 55

Bradycardia and Syncope from Synergistic Effect of Donepezil and Beta Blockers - A Serious, Yet Under-Recognized Drug-Drug Interaction: A Mini-Series

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BACKGROUND: Older adults are at increased risk of adverse drug events (ADE) due to comorbidities, polypharmacy and age-related altered pharmacokinetics and pharmacodynamics. Acetylcholinesterase inhibitors and beta blockers are used in patients with dementia and cardiovascular disease. Taken together, likelihood for bradycardia as an ADE is high, yet poorly documented.

CASES: **Case 1** - 97-year-old euthyroid female with dementia, hypertension, and dyslipidemia, hospitalized for multiple episodes of witnessed syncope and falls due to bradycardia with unresponsiveness. Medications: donepezil, aspirin, pravastatin, labetalol. EKG: sinus bradycardia (46/min) with premature atrial contractions; troponins negative. Echocardiogram, CT head and EEG non-contributary. Cardiologist ruled out sick sinus syndrome with no further workup. On day 5 she was shifted to floor with persistent episodes of bradycardia, though hemodynamically stable. She had miosis. Donepezil toxicity was considered, and drug stopped. Heart rate improved, but only to 50-60/min. As an outpatient, labetolol was stopped. Heart rate normalized.

CASE 2 – 72-year-old male with advanced Alzheimer's disease with wandering behavior, with prior CABG and hypertension had recurrent syncope and falls with documented bradycardia (50/min). He was on amlodipine, metoprolol, and donepezil. Possibility of metoprolol or donepezil causing bradycardia was considered and donepezil stopped. ECG two days later revealed sinus rhythm of 70/min, normal QTc. Metoprolol was continued for CAD. He had low normal heart rate without bradycardia, syncope or falls.

CASE 3 – 84-year-old nursing home resident with hypertension, vascular dementia, agitation, hyperlipidemia, anemia, and poor vision had multiple episodes of bradycardia with heart rate of 50/min. She was mostly bed/wheelchair bound; when unsupervised, she would try to ambulate causing multiple falls with minor injuries. Medications: amlodipine, lisinopril, donepezil and metoprolol. Donepezil was stopped, while metoprolol was continued. Episodes of bradycardia reduced significantly.

DISCUSSION: Acetylcholinesterase inhibitors prevent hydrolysis of acetylcholine, increasing its concentration in synapses, and consequent bradycardia. Beta blockers inhibit myocardial beta-1 adrenergic receptors leading to bradycardia. Administering both drugs in those with dementia and cardiovascular disease have synergistic potential to cause bradycardia and syncope, with resulting morbidity and mortality, as stated in drug labels. Patients with heart disease and conduction abnormalities are more predisposed to bradycardia, syncope, and perhaps cardiac pacing. These are preventable ADEs, but seldom recognized.

KEY POINTS: Syncope in adults with dementia may result from drug interactions, typically cholinesterase inhibitors and beta blockers. Timely recognition of ADE and deprescribing the drugs helps prevents syncope, falls, hospitalization and needless interventions.

POSTER # 56

Incidental Krukenberg Tumor During Caesarian Section

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BACKGROUND: Cancer complicates 1 in 1000 pregnancies. The diagnosis of gastric cancer during pregnancy is extremely rare, is estimated to complicate 0.026-0.1% of all pregnancies. The poor prognosis of gastric cancer associated with pregnancy may be due to the late diagnosis, due to the most common symptoms such as nausea, vomiting, and dyspepsia may be attributed to a normal pregnancy.

CASE: This is a 29-year-old female in the 30th week of pregnancy admitted for abdominal pain. Cesarean delivery was performed due to recurrent prolonged decelerations, which revealed an incidental right ovarian mass measuring 18 cm x 10 cm, frozen section pathology was consistent with theca lutein cyst but the final pathology revealed metastatic poorly differentiated adenocarcinoma. Computed tomography (CT) scan showed a right adnexal mass with increased vascularity and gastric wall thickening. Upper gastrointestinal endoscopy revealed a gastric mass, further pathology consistent with poorly differentiated adenocarcinoma with signet ring cells. In addition, PD-L1 was positive, ERBB2 negative, CA 125, and AFP were elevated at 355 U/ml and 10.8 U/ml respectively.

Six weeks later, the patient was readmitted for abdominal distention. CT abdomen showed bilateral ovarian metastasis and a large volume of ascites. The patient underwent diagnostic paracentesis notable for negative pathology for malignant ascites. The hospitalization course was complicated for recurrent ascites and progressive clinical deterioration. No surgical intervention was considered due to poor performance status. She was started on chemotherapy with oxaliplatin, leucovorin, 5-Fluorouracil, and pembrolizumab based on clinical decision-making for her advanced malignancy. Our patient is currently undergoing palliative chemotherapy and is in the process of getting enrolled in a clinical trial.

DISCUSSION: Pregnancy-associated gastric cancer is a rare condition with a poor prognosis, the treatment depends on the gestational status but should not be significantly different from non-pregnant women. Most of the patients are not candidates for surgical resection due to late-stage diagnosis, the standard chemotherapy regimen consists of doublet or triplet fluoropyrimidine-based and platinum-based combination regimens are recommended as first-line therapy in ERBB2 negative unresectable, locally advanced/metastatic gastric cancer. These regimens are associated with median overall survival of 1 year or less and significant toxic effects. New checkpoint inhibitors such as Pembrolizumab have demonstrated promising antitumor activity as monotherapy or in combination with chemotherapy in patients with advanced gastric adenocarcinoma with positive PD-L1 with fewer adverse effects.

POSTER # 57

Post-Obstructive Diuresis Complications: A Rare Cause of Nephrogenic Diabetes Insipidus

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INTRODUCTION: When urinary obstruction is relieved, diuresis resolves once the kidneys reach homeostasis, in most cases. In cases where diuresis does not cease after homeostasis, salt wasting and water loss continue, leading to post-obstructive diuresis (POD). This results in an elevated risk of severe dehydration and electrolyte imbalance. Some of the electrolyte imbalance associated with POD include hypomagnesemia and hypokalemia. Because these two electrolyte imbalances impair the urinary concentrating ability and decrease the collective tubular response to ADH, this can lead to nephrogenic diabetes insipidus (NDI). We present a case of hypomagnesemia and hypokalemia caused by POD, ultimately resulting in NDI.

CASE DESCRIPTION:

A 63-year-old male with no past medical history presented to the ER with fatigue and weakness for two weeks. Physical examination was significant for suprapubic tenderness. Labs revealed BUN/creatinine of 238/7.1, sodium 121, and a high anion gap of 29 with CO2 of 7. CT abdomen without contrast showed bilateral hydroureter, hydronephrosis with enlarged prostate causing mass effect in the urinary bladder. Foley was placed and 850 mL of urine was drained. Patient was admitted for acute renal failure due to obstructive uropathy. Patient's BUN/Cr improved to 45/2.6 with Foley placement, and hyponatremia improved to 135 with normal saline. During the patient's hospital course, his urinary output was noted to be 9 liters over 24 hours. Potassium was 3.0, magnesium 0.8, urine osmolarity 250. Data was consistent with POD resulting in hypomagnesemia and hypokalemia causing NDI. Magnesium was repleted with IV magnesium and oral magnesium oxide. Potassium was corrected with IV and oral supplements. Patient was given 200 mL/hr normal saline for three days without resolution of polyuria. With repletion of magnesium and potassium as well as reduction of normal saline to 42 mL/hr, urinary output then decreased to 2 liters over 24 hours upon discharge.

DISCUSSION/CONCLUSION:

POD is defined as >200cc of urine for at least 2 consecutive hours following obstruction relief.

POD leads to electrolyte excretion, and our patient's hypomagnesemia and hypokalemia caused nephrogenic diabetes insipidus due to decreased ADH responsiveness in collecting tubules.

Our case highlights the importance of monitoring electrolytes in those with POD

Treatment of NDI caused by hypomagnesemia is repletion of magnesium.

Pitfall: Aggressive replacement of fluids prolonged patient's polyuria. Optimal therapy of POD consists of fluid infusion at a maintenance level.

POSTER # 58

Fruit Mimic Stroke, Susumber Intoxication

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INTRODUCTION: Susumber poisoning is a rare intoxication caused by Susumber berries also called devil's fig or gully bean Most cases reported have been found with the ingestion of berries from Jamaica. In this case report, we present a patient with acute intoxication with symptoms that can easily be confused with a stroke.

CASE: A 48-year-old man with no past medical history, presented double/blurred vision, slurred speech. Pt reported having eaten Susumber berries that he brought from his trip to Jamaica and 12 hours later developed double vision, went back to sleep, and woke up with slurred speech, generalized weakness, muscle aches, frontal headache, non-bloody diarrhea, and one episode of vomiting.

Denied any recent history of trauma to the head, fever, recent infection, cough, sob, dysphagia, numbness in extremities, falls, syncope or seizures.

The patient commented that he has had eaten Susumber beans before with no complications, but this time they had a different taste. Pt arrived at the Emergency Department, accompanied by his mother who also had similar symptoms but milder presentation.

On physical exam presented: Eyes: pupils reactive, symmetric, but opsoclonus bilateral. Neuro: No focal deficits, no facial droop but mildly slurred speech, finger to nose test with mild dysmetria, motor extremities 5/5, sensation intact to light touch, and decline walking as he felt too weak.

CT head was normal, lactate was 3, and K 3.3 but otherwise normal labs and ECG normal sinus rhythm. The patient went to ICU for 24 hours observation to assess for respiratory depression and stayed in the hospital for 3 days, was managed with supportive care, and was later discharged home.

DISCUSSION: There are few cases reported in the literature, probably because most intoxications are rare and mild to asymptomatic. Gastrointestinal and neurologic symptoms are common presentations, thought to be caused by steroidal glycol-alkaloids and aglycones which have cholinergic and anticholinesterase activity, Excess acetylcholine has diverse effects depending on muscarinic or nicotinic receptors. When affecting the nervous system can result in ataxia, slurred speech, and the most serious presentation respiratory depression. It is important to differentiate these symptoms that could present as a stroke, but key differences would be the lack of risk factors for stroke, systemic symptoms, bilaterality, unremarkable laboratories and images, and multiple family members affected.

POSTER # 59

The Fever, The Labs, and The Images

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INITIAL HISTORY/PRESENTATION: An 11-year-old previously healthy boy presented with 8 days of fever and headache. Fevers occurred daily (101-103 F) despite antipyretics, and he remained febrile for 23 days. Headaches occurred concurrently with fevers, and were frontal, non-radiating, and without photophobia/phonophobia. The patient endorsed diffuse abdominal pain, nausea, and decreased appetite but no vomiting or diarrhea. Review of systems was notable for night sweats, fever and five-pound weight loss.

PHYSICAL EXAM: Vitals signs were normal for age except for fevers. Exam showed right sided mobile, tender cervical lymphadenopathy with multiple coalescing nodules (largest approximately 3 cm), a soft systolic murmur heard at the left lower sternal border, and right upper quadrant tenderness. Neurologic, musculoskeletal, and skin exams were normal; he was well appearing.

DIAGNOSTIC EVALUATION: Labs showed leukopenia (WBC 2.26, ANC 994) with 12% bands. Inflammatory markers were mildly elevated (CRP 1.21, ESR 22, fibrinogen 585, D dimer 474, LDH 622). The patient had unremarkable CXR, AXR, head CT, EKG and ECHO. Neck CT showed markedly enlarged non-necrotic lymph nodes on the right. An ultrasound showed multiple enlarged lymph nodes with retained fatty hilum. An extensive infectious workup was negative including for tuberculosis, HHV6, EBV, CMV, adenovirus, parvovirus, toxoplasmosis, HIV and Bartonella. Flow cytometry and bone marrow biopsy were negative. The ultimate diagnosis was determined following lymph node biopsy.

DIAGNOSIS: Lymph node biopsy revealed necrotizing lymphadenitis without granulocytic infiltration, which is consistent with Kikuchi-Fujimoto disease, necrotizing phase.

DISCUSSION/CONCLUSION: Kikuchi-Fujimoto disease (KFD), also known as Histiocytic Necrotizing Lymphadenitis, is a benign, self-limited disease of unknown etiology. It is characterized by fever and cervical lymphadenopathy but can include night sweats, chills, weight loss, arthralgia, rash, and neurological involvement. Definitive diagnosis is made with excisional biopsy as labs and clinical findings are often non-specific. It is often self-limiting, but as in this case, some patients have symptom resolution one day to week after lymph node removal. As clinical symptoms can mimic infectious, oncologic, and rheumatologic conditions, an early index of suspicion is key to prevent delay in excisional biopsy, which may limit exposure to radiation or other invasive procedures. Symptom resolution can occur in one to four months, but patients must be monitored for the development of systemic lupus erythematosus and complications such as hemophagocytic lymphohistiocytosis.

POSTER # 60

Chorea-Hyperglycemia-Basal Ganglia Syndrome and a New Stroke

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BACKGROUND: Chorea-hyperglycemia-Basal ganglia syndrome (CHBG) is a rare clinical entity encountered in patients with uncontrolled diabetes mellitus characterized by hemichorea-hemiballismus. Early recognition of this specific clinical condition is crucial since correction of hyperglycemia leads to favorable outcomes. We present this case to increase awareness of this syndrome since it presents with a specific radiologic imaging finding in a recognizable clinical context.

METHOD (CASE PRESENTATION): A 69-year-old female patient with a history of hypertension, uncontrolled diabetes mellitus, and a recent admission due to a fall was readmitted for the new-onset uncontrollable right arm and right leg movements and right leg weakness for the last two days. Five weeks earlier, she was diagnosed to have hyperosmolar hyperglycemic syndrome with a glucose level of 923 mg/dL and was treated with an insulin drip. Imaging had revealed chronic infarct at the dorsal part of the lentiform nucleus. She was discharged home.

On the second admission, she was noted to have weakness of the right upper and lower extremity (MRC grade 4/5) and choreiform movements on the right side of the body, most prominent in the right elbow and wrist. On MRI imaging, a new infarct in the left corona radiata and hyperintense lesion in T1 weighted image in the left putamen was noted.

Two weeks post-discharge follow-up, she was noted to have fewer uncontrolled movements on the exam. She was ambulating with a cane and was independent in activities of daily living.

RESULT: The patient had new-onset right-sided weakness and involuntary movements of the right upper extremity most prominent in the elbow and the wrist which suggested the combination of a new stroke involving left corona radiata and CHBG suggested by the hyperintense lesion in T1 weighted image localized in the putamen. It has been reported that CHBG occurs a few weeks after glucose control, suggesting a delayed reaction to hyperglycemia. Decreased gamma-aminobutyric acid (GABA) levels are held responsible for this condition. The condition has a benign course that responds well to diabetes management, which was also observed in our patient.

CONCLUSION: CHBG is a rare entity in elderly females with a predilection for upper extremities and should be considered in the setting of choreiform movements, specific MRI findings, and a history of hyperosmolar hyperglycemic syndrome.

POSTER # 61

E-cigarettes: A Boon or A Bane?

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CASE PRESENTATION: E-cigarettes and vaping use-associated lung injury (EVALI) is a novel respiratory disease. We present a case of a 22-year-old female, with a two-year history of vaping, who presented with one week of difficulty breathing. Blood tests showed neutrophil-predominant leukocytosis. A respiratory viral panel including Covid-19, and sputum and blood cultures were negative. Imaging showed bilateral ground-glass opacities. Ceftriaxone and Azithromycin were initiated for presumed community-acquired pneumonia, with minimum relief. Prednisone was added on Day 3 of hospitalization, which led to rapid recovery and radiological resolution of the infiltrates. With history and radiologic findings consistent with EVALI, rapid improvement with steroids, and lack of alternative explanation, the patient was diagnosed with EVALI.

DISCUSSION: The incidence of EVALI is on the rise in the USA, keeping pace with the e-cigarette use [1]. As of January 2020, 2602 cases of EVALI had been reported to CDC from all over the USA [2]. The usual components of the vape base are propylene glycol, and flavoring agents like nicotine, tetrahydrocannabinol (THC) etc. [1]. Bronchoalveolar lavage fluid samples from patients identified vitamin E acetate in all the samples [1, 4]. It is postulated that inhaled vitamin E acetate incorporates into the natural phospholipids of the surfactant, interfering with its permeability and functionality, resulting in inflammation [1]. However, there are numerous other free radicals generated in the process of vaping, whose role in the pathophysiology of EVALI still evades us.

CONCLUSION: We want to emphasize that although e-cigarettes were introduced as a de-addiction strategy for nicotine, they are not as benign as initially thought to be and more studies are required to understand the full extent of the side effects posed by their use.

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POSTER # 62

Diagnosing and Managing Clinically Silent Lupus Nephritis and ANCA-Associated Vasculitis Overlap Syndrome: A Challenging Case

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INTRODUCTION: Lupus nephritis (LN) is caused by anti-double-stranded DNA antibody (anti-dsDNA Ab) against nuclear antigens resulting in intrarenal immune complex (IC) deposition [1]. Establishing diagnosis with negative serology is difficult, however, such cases of LN have been reported [2]. A literature review indicates around 40 cases of LN overlapped with anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV) [3]. Herein, we describe an unusual presentation of acute renal failure (ARF) from LN and AAV overlap syndrome.

CASE: A 41-year-old female with a medical history of migraine and vertigo was evaluated by an allergist for self-resolving transient lip swelling. Allergy panel was unremarkable. This prompted her to establish care with a primary care physician who referred her to emergency department (ED) for low hemoglobin and elevated serum creatinine (Cr). Prior blood workup almost two years ago was unremarkable. In the ED, she was hypertensive with blood pressure, 202/109 mmHg and mildly pale; rest of the physical examination was unremarkable. Laboratory workup showed normocytic hemolytic anemia (hemoglobin 5.7 g/dL); ARF (Cr 6.4 mg/dL); hypoalbuminemia (albumin 3.3 g/dL) and hyperproteinemia (total protein 10.6 g/dL). She was admitted for further evaluation. Complete urinalysis showed proteinuria, hematuria, and red blood cells. The patient remained asymptomatic throughout the hospital course. Anemia panel, infectious workup, and renal sonogram were unremarkable. She had nephrotic range proteinuria 5600mg/24hr, positive anti-neutrophil antibody (without mention of dilution), negative anti-dsDNA Ab, negative anti-smith antibody, low complement-3, normal complement-4, hypergammaglobulinemia with normal immunoglobulins A and M, immunofixation without any monoclonal band, elevated kappa, lambda and free light chain ratio, normal hemoglobin electrophoresis, positive direct Coombs test, positive anti-Sjogren's syndrome-A and B antibody and negative anti-glomerular basement membrane antibody. She underwent hemodialysis for ARF. Renal biopsy revealed crescentic glomerulonephritis and interstitial nephritis with significant IC deposition. A diagnosis of LN was made; however, ANCA serology was sent to rule out AAV. Induction therapy with glucocorticoids and mycophenolate mofetil was started. Subsequent workup indicated AAV with positive perinuclear- ANCA and myeloperoxidase-1 antibody. The diagnosis was revised to LN with concurrent AAV. Hence, rituximab was initiated for AAV.

CONCLUSION: Making a clinical diagnosis of LN and AAV in an asymptomatic patient can be challenging and must be made based on the interpretation of evolving serology, imaging studies, and histopathology. Induction therapy, apart from glucocorticoids, is determined by the underlying disease i.e., immunosuppressive therapy such as mycophenolate mofetil [4] or cyclophosphamide [5] for LN and rituximab or cyclophosphamide for AAV [6].

POSTER # 63

When Knowledge Becomes Overwhelming, Go Back to the Basics.

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BACKGROUND: "The Great Imitator" is used to describe a condition that has non-specific symptoms mimicking a variety of conditions, making the clinical assessment of the case challenging, and potentially leading to misdiagnosis and delaying treatment. Here, we report a case where two overlapping diseases were diagnosed and treated based on current clinical and lab findings and the pathology lead to unmasking a great imitator.

CASE: A 32-year-old male presented with a 1-month history of fever, constitutional symptoms, arthralgia of the large joints, epistaxis, dyspnea, and unintentional 10-pound weight-loss. He reported being recently treated with azithromycin and subsequent malar and supraorbital maculopapular rash which disseminated after antibiotic use. He had a past medical history of COVID infection. COVID testing was now negative. CT pulmonary angiogram revealed splenomegaly and lymphadenopathy suspicious for malignancy. The heterophile-monospot test was positive. He was admitted for symptomatic hemolytic anemia with possible underlying lymphoproliferative disorder. Labs showed leukopenia with eosinophilia. HIV was non-reactive, and the hepatitis panel was negative. After starting topical triamcinolone and oral prednisone, the Direct-Coombs test was positive. Warm-reactive autoantibodies, direct antiglobulin: DAT Anti-IgG Anti-C3bd positive, IgG=Pos3+/ C3db=Pos3+. Ferritin, fibrinogen, and ESR/CRP were normal, haptoglobin was low (<8 mg/dL), and D-dimer was elevated (2,296 ng/mL). The steroid dose was increased, and his condition improved. The presence of EBV IgM and IgG and Nuclear Ag Ab pointed to EBV infection. After lymph node and skin biopsies, the patient was discharged on tapering steroid. The pathology later reported reactive follicular hyperplasia without evidence of lymphoma and dermatitis suggestive of dermatomyositis. Myositis AsessR Plus Jo-1 Antibody pointed to systemic lupus erythematosus. Hydroxychloroquine and methotrexate were started.

CONCLUSION: This case highlights the importance of adequate assessment when we have a vague case. With constitutional symptoms and malar/supraorbital rash, medical attention was focused on a drug exposure disseminated rash. At this point, workup reported significant adenopathy, mono test positive, and hemolytic anemia. Differential diagnoses included: EBV, Drug Rash Eosinophilia with Systemic Symptoms, dermatomyositis, and neoplastic process. Steroid therapy led to clinical improvement. Further workup diagnosed EBV infection. Biopsy ruled out malignancy, and ruled in: DRESS, dermatomyositis vs cutaneous lupus erythematosus. After correlating with serology, an autoimmune process was diagnosed. Association of hemolytic anemia and mononucleosis has been documented only in 21-cases, with autoimmune antibodies reported in six, mainly cold type. When discussing etiology, synchronous condition is likely to be present and a drug reaction contributing to the clinical course cannot be discarded.

Scan for References