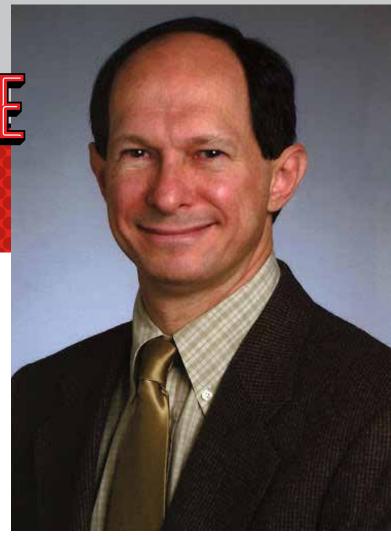


WELCOME

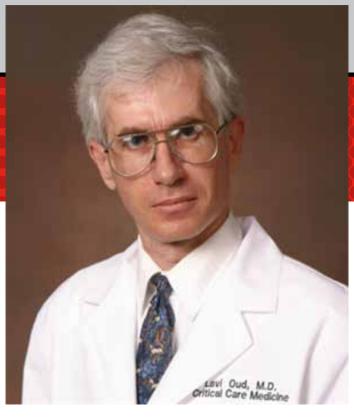


Gary Vertolini, M.D.

REGIONAL DEAN AND PROFESSOR, SCHOOL OF MEDICINE TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER AT THE PERMIAN BASIN

**Research**, defined as a meticulous and systematic investigation to answer scientific problems, has been fundamental for the advancement of medicine. Medical students, residents, fellows, and faculty from TTUHSC at the Permian Basin meet on "Research Day" to share and communicate ideas, experiences, projects, and achievements in research. "Research Day" epitomizes the best of academic scholarly activity. It is therefore my pleasure to welcome you to this important occurrence.

Gary Ventolini, M.D., is the Regional Dean and Professor of School of Medicine at Texas Tech University Health Sciences Center at the Permian Basin. He came to the TTUHSC from Wright State University Boonshoft School of Medicine, where he served as the Chair of Obstetrics and Gynecology for six years. Dr. Ventolini's education and experience are both vast and international. He received a Doctorate of Medicine & Surgery from the University of Padova in Padova, Italy. He also served on the faculty of Libre University in Cali, Columbia, before coming to the United States for post-graduate training in Family Medicine in Spartanburg, South Carolina and the joining the faculty of the University of Cincinnati. Dr. Ventolini is board certified in both Family Medicine and Obstetrics & Gynecology.



Lavi Oud, M.D.

ASSOCIATE REGIONAL DEAN FOR RESEARCH
DEPARTMENT OF INTERNAL MEDICINE

**Dr. Oud** is Associate Regional Dean for Research at School of Medicine and Professor of Medicine at Texas Tech University Health Sciences Center at the Permian Basin. He is Chief of the Division of Pulmonary and Director of both Critical Care Medicine and Simulation-based training at TTUHSC at the Permian Basin. Dr. Oud uses "Big data" analytics to explore use of critical care delivery systems and outcomes of critical illness. Dr. Oud has been with TTUHSC at the Permian Basin since 1999.



Kushal Gardhi, Ph.D.

CHAIR, SCIENTIFIC ORGANIZING COMMITTEE
DIRECTOR, PERMIAN BASIN RESEARCH LAB

Dr. Gandhi is a director of the Permian Basin research lab at Texas Tech University Health Sciences Center at the Permian Basin. He worked on different research projects based on cytokine expression and Lactobacillus presence in genital area of pregnant, pre-menopausal and menopausal women; vitamin D and cytokine level in rheumatoid arthritis patients; biofilm formation; Raman Spectroscopy on pregnant women serum samples using Mira M-1 spectrometry; and endocannabinoid expression in high fat diet animal model. Dr. Gandhi completed his Ph.D. in cardiovascular science at University of Verona, Italy. While working on his doctoral degree, he was a visiting research scholar at University of Oxford, U.K. In addition to his Ph.D., he has a Master of Research in Pharmacology from Nottingham Trent University, U.K. and a Bachelor of Pharmacy from Nirma University in Ahmedabad, India.

# Scientific Organizing Gommittee for Research Day 2021



KUSHAL GANDHI, PH.D. Chair, Scientific Organizing Committee



DAVID BANH, M.D.



ASLEY SANCHEZ, B.S.



REAL TRAVIS, M.L.S



GLADYS OLIVAS



GLORIA OROZCO, MS-3



SELVAN VANI. M.D.



LAVI OUD, M.D.



SWAPNA KOLLI. M.D.



LISA PLATNER, PH.D.



ERIK WILKINSON, M.L.S



BABATUNDE JINADU, M.D.



NIMAT ALAM, M.D.



NEHA PANCHAGNULA, M.D.



SRIKANTH MUKKERA, M.D.



NATHAN JOSHUA Manales, B.S.

### Residents and Students Sub-Committee for Research Day 2021



NEHA PANCHAGNULA, M.D.



GLORIA OROZCO. MS-3

# Schedule: ORAL PRESENTATION AND KEYNOTE SPEAKER

8:00-8:15	Welcome note: GARY VENTOLINI, M.D.
8:15-8:30	RYAN KECK, MS-3: The use of surfactant-based debridement topical in a single burn center: A retrospective review on the use of collagenase debridement topicals
8:30-8:45	YULIAN YESTIN, M.D.: COVID-19 positive patient with acute development of thrombus formation post-hospitalization: A case report
8:45-9:00	KARTHIK CHAMARTI, M.D.: A fatal case of Acquired Hemophilia A in an elderly female
9:00-9:15	<b>SARAH CHOI, MS-4</b> : Cytokine profiles and Lactobacillus species presence in pre-menopausal subjects with genital <i>Mycoplasma genitalium</i> or <i>Ureaplasma urealyticum</i> colonization
9:15-9:30	<b>ASHRAF MUZWAGI, M.D.:</b> Efficacy of Anticonvulsant for agitation in dementia patients: A systematic review of clinical trials
9:30-9:45	AHMAD HAMDAN, M.D.: IgG4-related Retroperitoneal Fibrosis Treated with Glucocorticoids and Rituximab
9:45-10:00	TRACI BARTKUS, D.O.: Placental morphometry and pathology during COVID-19 pandemics
10:00:10:15	FATIMA MOTIWALA, M.D.: Adverse effects of high dose melatonin on psychiatric disorders: A case report and review of the literature
10:15-10:30	BREAK
10:30-10:45	YANNA FERNANDEZ, M.D.: Rare presentation of Gallbladder neuroendocrine neoplasm
10:45-11:00	LAKSHMI ALAHARI, M.D.: Resident lead quality improvement project to improve screening of depression in Texas Tech Physician Internal Medicine clinic in Odessa
11:00-11:15	NEHA PANCHAGNULA, M.D.: The Story of the Heart's Wet Suit: A case of cardiac tamponade with COVID-19 in a young female
11:15-11:30	ANUSHA AMMU, M.D. AND LAKSHMI ALAHARI, M.D.: Outcomes in COVID-19 patients based on demographics, clinical signs & symptoms, hematological, immunological and radiological parameters

11:30-11:45	CARLOS FELIPE MATUTE-MARTINEZ, M.D.: Primary Splenic Diffuse Large B-cell Lymphoma (PS-DLBCL) with associated vitamin d-mediated hypercalcemia
11:45-12:00	<b>ANNU DIXIT, M.D.:</b> Perception of quality of care in Obstetrics and Gynecology outpatients' clinic during COVID-19 pandemics
12:00-12:15	<b>STANLEY EBOH, MS-3</b> : Ruptured aortic aneurysm leading to cardiac arrest and perimortem cesarean section: A case report
12:15-12:30	LUNCH BREAK
12:30-1:30	KEYNOTE ADDRESS, ROBERTO CARICCHIO, M.D.: COVID-19 Therapeutics and Vaccine Development: The Rheumatologist Prospective
1:30-1:40	Closing Remark, SRIKANTH MUKKERA, M.D.

## Keynote Speaker

Roberto Garicchio, M.D. FAGR

CHIEF, DIVISION OF RHEUMATOLOGY, PROFESSOR OF MEDICINE, MICROBIOLOGY, AND IMMUNOLOGY,

LEWIS KATZ SCHOOL OF MEDICINE,

TEMPLE UNIVERSITY HOSPITAL



Roberto Caricchio, M.D., FACR is the Chief of Rheumatology, Professor of Medicine, Microbiology, and Immunology at the Lewis Katz School of Medicine at Temple University, and Director of the Temple Lupus Program at Temple University Hospital. He has spent the majority of his scientific career in understanding the pathogenesis of systemic lupus erythematosus (SLE). He studies the relevance of cell death as the primary source of the nuclear targets in both human and several animal models of lupus. Throughout his years he focused on the pathogenic mechanism of glomerulonephritis (GN), a severe complication of SLE. As of late, he has been extensively involved in the treatment of COVID-19 patients, especially those who develop a form of cytokine storm. Through collaboration with the Thoracic Medicine and Surgery departments at Temple University, he contributed to the development of a strategic therapeutic approach to patients afflicted with COVID-19-induced cytokine storm. He is the site-PI for the Canakinumab trial and Baricitinib trial in COVID-19 cytokine storm treatment and a sub-PI for the ENSEMBLE, Janssen Vaccine Trial.

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## Judges and Moderators

### JUDGES -

### ORAL PRESENTATION

- Selvan Vani, M.D.
- Elisa Brown, M.D.
- Srikanth Mukkera, M.D.

### POSTER PRESENTATION

- Swapna Kolli, M.D.
- Lisa Platner, Ph.D.
- Nimat Alam, M.D.
- Cornelia De Riese, M.D.
- Sai Siva Mungara, M.D.
- Erik Wilkinson, M.L.S

### **MODERATORS** -

### ORAL PRESENTATION

- Asley Sanchez, B.S.
- Lisa Platner, Ph.D.
- Nathan Joshua Manales, B.S.

### POSTER PRESENTATION

- Kushal Gandhi, Ph.D.
- Nathan Joshua Manales, B.S.
- Real Travis, M.L.S
- Gladys Olivas
- Tasha Earl
- Stacy Broadstreet

# ORAL PRESENTATIONS

Underline: Presenting author; \*: Corresponding author

- 1. The Use of Surfactant-Based Debridement Topical in a Single Burn Center: A Retrospective Review on the Use of Collagenase Debridement Topicals Ryan Keck, MS-3, Joshua Frost, MS-3, Simran Singh, MS-3, Nkemjika Uke, MS-2, and John Griswold\*, M.D.
- COVID-19 Positive Patient with Acute Development of Thrombus Formation Post-Hospitalization: A Case Report Chiraag Alur\*, M.D., Martin Ortega, D.O., Andrew Pande, M.D., Vani Selvan, M.D., and Yulian Yestin, M.D.
- 3. A Fatal Case of Acquired Hemophilia A in an Elderly Female

  <u>Karthik Chamarti\*, M.D.</u>, Akankcha Alok, MBBS, Aliuddin Ammar, M.D., Maneesh

  Mannem, M.D., Anosha Anwar, M.D., Vivek Prasad, M.D., and Bajaj Kelash, M.D.
- 4. Cytokine Profiles and Lactobacillus Species Presence in Pre-Menopausal Subjects with Genital Mycoplasma Genitalium or Ureaplasma Urealyticum Colonization Sarah Choi, MS-4, John Garza, Ph.D., Kushal Gandhi, Ph.D., Asley Sanchez, B.S., and Gary Ventolini\*, M.D.
- 5. Efficacy of Anticonvulsant for Agitation in Dementia Patients: A Systematic Review of Clinical Trials

  Ashraf Muzwagi\*, M.D., Kaushal Shah, M.D., MPH, Wisam Aljumaili, Geetha Manikkara, M.D., Husain Karrar, M.D., and Mark Varela, M.D.
- 6. IgG4-Related Retroperitoneal Fibrosis Treated with Glucocorticoids and Rituximab

  Abmod Hamdan\* M.D. Zupera Meson, M.D. Hipa Tarig, M.D. Olga Olsan, M.D.

Ahmad Hamdan\*, M.D., Zunera Moeen, M.D., Hina Tariq, M.D., Olga Olson, M.D., Carlos Matute, M.D., Mandeep Sidhu, M.D., and Srikanth Mukkera, M.D.

7. Placental Morphometry and Pathology During COVID-19 Pandemics
Glen Bennion, D.O., Maribeth Hulsey, M.D., Juan Carlos Lopez-Alvarenga, M.D.,
Traci Bartkus, D.O., Maricela Chavez, M.D., Becky Meissner, M.D., Alice Fa, M.D.,
Elisa Brown, M.D., Cornelia DeRiese, M.D., James Maher, M.D., David Moore, M.D.,
and Natalia Schlabritz-Loutsevitch\*, M.D., Ph.D.

Underline: Presenting author; \*: Corresponding author

8. Adverse Effects of High Dose Melatonin on Psychiatric Disorders: A Case Report and Review of the Literature

Kaushal Shah, M.D., MPH, <u>Fatima Motiwala, M.D.</u>, Zeeshan Mansuri, M.D., MPH, Mark Varela\*, M.D., Mahamudun Nabi, M.D., and Shailesh Jain, M.D., MPH

- 9. Rare Presentation of Gallbladder Neuroendocrine Neoplasm Yanna Fernandez\*, M.D., Vani Selvan, M.D., and Donald Davenport, M.D.
- 10. Resident Lead Quality Improvement Project to Improve Screening of Depression in Texas Tech Physicians Internal Medicine Clinic in Odessa Alahari L., M.D. and Kolli S.\*, M.D.
- 11. The Story of the Heart's Wet Suit: A Case of Cardiac Tamponade with COVID-19 in a Young Female

Neha Panchagnula, M.D., Juan G. Sierra, M.D., and Gerardo Catalasan\*, M.D.

- 12. Outcomes in COVID-19 Patients Based on Demographics, Clinical Signs & Symptoms, Hematological, Immunological, and Radiological Parameters Srikanth Mukkera\*, M.D., Swapna Kolli, M.D., Anusha Ammu, M.D., Shohana Ahmed, M.D., Jabur Ali, M.D., Lakshmi Alahari, M.D., George Cao, MS-4, Elsy Rivera, MS-4, Qudrat Ullah Muhammad, M.D., and Kushal Gandhi, Ph.D.
- 13. Primary Splenic Diffuse Large B-cell Lymphoma (PS-DLBCL) with Associated Vitamin D-Mediated Hypercalcemia

  Carlos Felipe Matute-Martinez\*, M.D., Ahmad Hamdan, M.D., Ammar Aliuddin, M.D., Amanda Bell, MS-3, Kelash Bajaj, M.D.
- 14. Perception of Quality of Care in Obstetrics and Gynecology Outpatients' Clinic During COVID-19 Pandemics

Annu Dixit, M.D., Sarah Kennedy, D.O., Rivera Elsy, MS-4, Tina Thai, M.D., Chanaka N. Kahathuduwa, MBBS, MPhil, Ph.D., Sabeena Rahman, D.O., Christopher Maguire, D.O., Kathryn Hutton, M.D., Christopher Enakpene, M.D., Daniela Pino, M.D., Michael Galloway\*, D.O. and Natalia Schlabritz-Lutsevich, M.D., Ph.D.

15. Ruptured Aortic Aneurysm Leading to cardiac Arrest and Perimortem Cesarean Section: A case report

Stanley Eboh, MS-3, Suna Burghul, D.O., and Cornelia de Riese\*, M.D., Ph.D., MBA

### 1. The Use of Surfactant-Based Debridement Topical in a Single Burn Center: A Retrospective Review on the Use of Collagenase Debridement Topicals

Ryan Keck<sup>1</sup>, MS-3, Joshua Frost<sup>1</sup>, MS-3, Simran Singh<sup>1</sup>, MS-3, Nkemjika Uke<sup>1</sup>, MS-2, and John Griswold<sup>1\*</sup>, M.D.

<sup>1</sup>Department of Surgery, Texas Tech University Health Sciences Center, TX, USA

#### BACKGROUND

A challenge in burn care is the management of partial-thickness, second-degree burns. Second-degree burns are classified by superficial-partial or deep-partial thickness, which rapidly change as the damaged cells are periviable. Enzymatic debridement plays a key role providing an accurate assessment of viability. Surfactants are another class of debridement, yet rarely used by burn centers. In this paper, we describe our experience with using a surfactant-based topical as an adjunct to standard burn treatment in 109 patients admitted to a burn center in West Texas.

### MATERIALS AND METHODS

Patients presenting to the burn center with first-degree to partial-thickness, second-degree burns were included in the study. Surfactant was applied within one day of admission and reapplied each day directly to the wound area and with adaptic dressings. Burn wounds were analyzed to assess effectiveness in management. Cost comparison between surfactant and enzymatic debridement was analyzed.

### RESULTS

Between January 1, 2018 and September 30, 2019, the surfactant rapidly cleaned wound sites in two days to allow for differentiation between periviable tissue. Next, the surfactant was associated with high levels of patient and caregiver satisfaction due to less irritation compared to previous debridement aides. Finally, a tube of surfactant topical was found to be cost-effective with 22% savings when compared to the tube of enzymatic debridement topical and a 36.8% savings of daily surfactant versus daily enzymatic use.

### CONCLUSION

The results of this study demonstrate a surfactant-based debridement aides in rapid diagnosis of indeterminate-depth burn injuries, higher levels of satisfaction, and overall cost savings when compared to traditional debridement.

### 2. COVID-19 Positive Patient with Acute Development of Thrombus Formation Post-Hospitalization: A Case Report

Chiraag Alur<sup>1\*</sup>, M.D., Martin Ortega<sup>1</sup>, D.O., Andrew Pande<sup>1</sup>, M.D., Vani Selvan<sup>1</sup>, M.D., and Yulian Yestin<sup>1</sup>, M.D.

<sup>1</sup>Department of Family Medicine, Texas Tech University Health Sciences Center at the Permian Basin, Odessa, TX, USA

#### BACKGROUND

Coronaviruses are a family of viruses which cause relatively benign respiratory infections. Coronavirus-19 (COVID-19), a new strain of coronavirus starting in 2019, emerged into a global pandemic. To date, COVID-19 has claimed 500,000+ lives in the United States. COVID-19 causes common acute respiratory infection progressing to failure and mortality. This disease also affects multiple other organs and fosters hypercoagulability status.

### CASE DESCRIPTION

In this case report, a healthy 44-year-old Hispanic male with no thrombosis history contracted COVID-19 and was hospitalized for acute hypoxic respiratory failure. Initial CRP (8.1), D-dimer (0.56), ferritin (1252), and LDH (354) were all elevated. He was treated with antibiotic and steroids with resulting respiratory improvement. He was placed on prophylactic anticoagulation during hospitalization and discharged with no complications. At home, his respiratory symptoms subsided but he developed left arm pain, numbness and swelling. CT angiography showed acute occlusion of the left axillary artery. The patient was readmitted and placed on a heparin drip. A vascular surgeon was consulted and successfully completed emergent thrombectomy. Upon discharge he was continued on anticoagulation for 3 months.

#### CONCLUSION

Following hospitalization, preventing a thrombus in a healthy, stable patient is not part of routine treatment of COVID-19. COVID-19 appears to cause a hypercoagulable state and increase the risk for thrombus formation in patients without outpatient anticoagulation and without other significant risk factors. In Virchow's triad, thromboembolism is the result of blood flow alterations, endothelial injury and/or hypercoagulability. Studies associated with similar cases appear to show certain D-dimer threshold that correlate increased risk of thrombus formation.

### 3. A Fatal Case of Acquired Hemophilia A in an Elderly Female

<u>Karthik Chamarti<sup>1\*</sup>, M.D.</u>, Akankcha Alok<sup>2</sup>, MBBS, Aliuddin Ammar<sup>1</sup>, M.D., Maneesh Mannem<sup>1</sup>, M.D., Anosha Anwar<sup>1</sup>, M.D., Vivek Prasad<sup>1</sup>, M.D., and Bajaj Kelash<sup>1</sup>, M.D.

<sup>1</sup>Department of Internal Medicine, Texas Tech University Health Sciences Center at the Permian Basin, Odessa, TX, USA

<sup>2</sup>Kasturba Medical College, Manipal, India

### BACKGROUND

Acquired Hemophilia (AHA) is a rare autoimmune bleeding disorder due to spontaneous formation of autoantibodies against clotting factors. Incidence is 1-1.5 per million, out of which 14.7% of the cases are in patients over 85 years of age. Majority of cases are idiopathic (50%) while other causes include pregnancy, infections, medications (heparin), autoimmune disorders and malignancies.

#### CASE DESCRIPTION

A 89-year-old female with history of hypertension, hyperlipidemia, CKD, acquired autoimmune hypothyroidism, upper GI bleed secondary to duodenal ulcer presented to ER for generalized weakness. Family history was negative for bleeding diathesis. Vitals were stable. Labs revealed hemoglobin of 5.8 g/dl, aPTT of 112.1 seconds and PT of 14.9 seconds. aPTT mixing studies did not correct indicating the presence of inhibitor. Factor VIII levels were <1% confirming diagnosis of AHA. Hepatitis panel, HIV and ANA were negative. CT of pelvis revealed right iliopsoas hematoma. She was transfused with multiple units of PRBC, cryoprecipitate, factor VII and FFP. High dose steroids and rituximab treatment was contraindicated because of her recent diagnosis with duodenal ulcer. While patient was being transferred to hemophilia treatment center (HTC), she suffered cardiac arrest due to hypovolemic shock and deceased.

### CONCLUSION

AHA has a mortality rate of 44% out of which most deaths occur in the first few weeks, as in our patient. Thus, we recommend for any patient presenting with isolated elevation of aPTT in absence of obvious causes like heparin induced to have a prompt recognition of this disorder because diagnostic delays and inadequate treatments are associated with high mortality rates

4. Cytokine Profiles and *Lactobacillus* Species Presence in Pre-Menopausal Subjects with Genital *Mycoplasma Genitalium* or *Ureaplasma Urealyticum* Colonization

<u>Sarah Choi¹, MS-4</u>, John Garza¹, ², Ph.D., Kushal Gandhi¹, Ph.D., Asley Sanchez¹, B.S., and Gary Ventolini¹\*, M.D.

<sup>1</sup>Department of Obstetrics and Gynecology, Texas Tech University Health Sciences Center at the Permian Basin, Odessa, TX, USA

<sup>2</sup>The University of Texas Permian Basin, Odessa, TX, USA

### BACKGROUND

Lactobacilli play a vital role in protecting the vagina against pathogens. Cytokines are vital components of defense against infections in women. The genital mycoplasmas, Mycoplasmas genitalium and Ureaplasma urealyticum, are associated with various infectious diseases in adults and infants. The objective of our study is to delineate the relationship between genital Mycoplasma genitalium and Ureaplasma urealyticum colonization in pre-menopausal women and variances in cytokine profile and Lactobacillus species predominance.

### MATERIALS AND METHODS

A real-time polymerase chain reaction was performed to measure *Lactobacillus* species in vaginal swab samples. Cytokine analysis was performed using multiplex immunoassays techniques. Analysis of variance confirmed a significant difference in cytokine profiles between patient groups with t-tests identifying the most significantly different cytokines. Categorical data analysis identified significant patterns of relative *Lactobacillus* species dominance in the study groups.

### RESULTS

Lactobacillus species profile was significantly different between control and Mycoplasma or Ureaplasma study groups. The cytokine levels were different based on Mycoplasma genitalium or Ureaplasma urealyticum colonization in study group. Using Spearman correlation, the associations between most cytokines in control group were negative whereas they were mostly positive in Mycoplasma or Ureaplasma group.

### CONCLUSION

Lactobacillus iners was the predominant Lactobacillus species in control group. There was no dominant Lactobacillus species in Mycoplasma or Ureaplasma study group. There was a statistically significant difference in cytokines levels between control and Mycoplasma-Ureaplasma study groups. IL-1B, IL-8, and VEGF-A were expressed significantly higher in Mycoplasma or Ureaplasma study group whereas IL10, IL-12, and IL-1RA were expressed higher in control group.

### 5. Efficacy of Anticonvulsant for Agitation in Dementia Patients: A Systematic Review of Clinical Trials

Ashraf Muzwagi<sup>1\*</sup>, M.D., Kaushal Shah<sup>2</sup>, M.D., MPH, Wisam Aljumaili<sup>3</sup>, Geetha Manikkara<sup>1</sup>, M.D., Husain Karrar<sup>4</sup>, M.D., and Mark Varela<sup>1</sup>, M.D.

<sup>1</sup>Department of Psychiatry, Texas Tech University Health Sciences Center at the Permian Basin, Midland, TX, USA

<sup>2</sup>Griffin Memorial Hospital, Norman, OK, USA

<sup>3</sup>Northwest Clinical Research Center, Bellevue, WA, USA

<sup>4</sup>University of Tennessee Health Science Center, Memphis, USA

#### BACKGROUND

Behavioral and psychological symptoms of dementia (BPSD) represent a prevalence of 60 to 80% among patients with different types of dementia. Those behavioral symptoms include agitation and aggression. To our knowledge, there is no FDA-approved medication to address behavioral symptoms in dementia patients. Medications used for BPSD include antipsychotics, anticonvulsants, antidepressants, benzodiazepines as an off label to address agitations. Unfortunately, antipsychotic medications come with FDA black box warning of sudden death in dementia patients. *Objective:* To evaluate the efficacy of anticonvulsant medications to alleviate agitation symptoms in dementia patients.

#### MATERIALS AND METHODS

Data base searched; PubMed, Embase, Scopus, Ovid MEDLINE, and Clinicaltrial. gov. We identified 367 articles out of which 11 articles met our inclusion and exclusion criteria. Inclusion: clinical trial articles in peer-reviewed journals, subjects ages 50 years and above, only use of anticonvulsant medications for agitation in dementia patients. We excluded clinical trials published in the non-English language.

### RESULTS

Carbamazepine and Valproate had the highest number of clinical trials. Valproate showed mixed results, and poorly tolerated, however it was the most studied medication. Carbamazepine showed effectiveness in all four studies and well tolerated. Topiramate was effective and well tolerated in one study. Oxcarbazepine was not effective based on one study.

#### CONCLUSION

Carbamazepine, Topiramate were effective in reducing agitation and well tolerated. Depakote showed mixed result, though it was studied the most. Oxcarbazepine was not effective. To our knowledge, the last clinical trial was done in 2010. There is a gap in addressing anticonvulsants medications for agitation in dementia patients. Therefore, more clinical trials are warranted.

### 6. IgG4-Related Retroperitoneal Fibrosis Treated with Glucocorticoids and Rituximab

Ahmad Hamdan<sup>1\*</sup>, M.D., Zunera Moeen<sup>1</sup>, M.D., Hina Tariq<sup>1</sup>, M.D., Olga Olson<sup>1</sup>, M.D., Carlos Matute<sup>1</sup>, M.D., Mandeep Sidhu<sup>1</sup>, M.D., and Srikanth Mukkera<sup>1</sup>, M.D.

<sup>1</sup>Department of Internal Medicine, Texas Tech University Health Sciences Center at the Permian Basin, Odessa, TX, USA

#### BACKGROUND

Immunoglobulin G4-related disease (IgG4-RD) is an immune-mediated fibroinflammatory condition. Common forms of presentation include Type I autoimmune pancreatitis and retroperitoneal fibrosis, among others. Retroperitoneal fibrosis associated with IgG4-related disease shows unilateral hydronephrosis in 75% of cases.

### CASE DESCRIPTION

43-year-old female presented with left lower quadrant pain. Ultrasound abdomen and pelvis revealed a complex left adnexal mass that could represent a left hydrosalpinx and/or tubo-ovarian abscess (TOA) and left hydroureteronephrosis. A computed tomography scan of the abdomen and pelvis revealed left hydroureteronephrosis to the level of a complex inflammatory process in the left adnexal region possibly reflecting an evolving TOA. Extensive gynecologic evaluation concluded that the mass was unlikely of gynecologic sources. Transgluteal biopsy of the mass was highly suggestive of IgG4 related inflammation. IgG4 level was elevated. The patient had left nephrostomy tube placement and stenting of the left ureter to relieve the obstruction. She later received prednisone and rituximab followed by methotrexate resulting in complete resolution of the mass.

### CONCLUSION

Diagnosis of IgG4 related disease is based upon the combination of characteristic clinical, serologic, radiologic and histopathologic findings. Guidelines for diagnosis have been described by the American college of Rheumatology and by the International Consensus Guidance Statement on the Management and Treatment of IgG4-Related Disease. Glucocorticoids are the first-line agent for remission induction in all patients with active, untreated IgG4-RD. Rituximab is an effective treatment for IgG4-RD that is refractory to glucocorticoids. Recent studies suggest that rituximab monotherapy can be used to induce and maintain remission in patients with IgG4-related retroperitoneal.

### 7. Placental Morphometry and Pathology During COVID-19 Pandemics

Glen Bennion<sup>1</sup>, D.O., Maribeth Hulsey<sup>1</sup>, M.D., Juan Carlos Lopez-Alvarenga<sup>1</sup>, M.D., <u>Traci Bartkus<sup>1</sup>, D.O.</u>, Maricela Chavez<sup>1</sup>, M.D., Becky Meissner<sup>1</sup>, M.D., Alice Fa<sup>1</sup>, M.D., Elisa Brown<sup>1</sup>, M.D., Cornelia DeRiese<sup>1</sup>, M.D., James Maher<sup>1</sup>, M.D., David Moore<sup>1</sup>, M.D., and Natalia Schlabritz-Loutsevitch<sup>1\*</sup>, M.D., Ph.D.

<sup>1</sup>Department of Obstetrics and Gynecology, Texas Tech University Health Sciences Center, TX, USA

### BACKGROUND

COVID-19 pandemics created situation of uncertainty regarding clinical outcomes and prognosis in pregnant patients. Immediate negative outcomes such as miscarriages and stillbirths have been reported. However, these outcomes are argued to be associated with the stress of COVID-19 pandemics and lock-down. The description of placental pathological findings during pandemics is scared and is limited to one observational study. Peaks of COVID-19 cases in the communities depended on the geographic location, community size and access of care among other parameters. Peak of COVID-19 cases in local communities in West Texas took place in July-August 2020. The aim of this study was to perform placental morphometric and pathological analyses in local community hospital for one month, associated with the peak of cases in the community.

### MATERIALS AND METHODS

Placental morphometry and placental samples were collected according to the IRB protocol. Placental measurements (fetal and maternal areas) were performed using image J program. Placental slides were evaluated by the board-certified human pathologist. The p-value was calculated with Student t-test.

#### RESULTS

Data from 135 placentas were collected. The placental volume had a positive trend for mother BMI with no difference by fetal sex. The overall correlation was 0.27 (p=0.09). Separately the statistical power drop for females 0.297 (p=0.25), and males 0.29 (p=0.19). Those with chorioamnionitis (n=20) had a size of effect of 0.7 on the placenta volume. But those who were COVID-19 positive had OR 1.4 of chorioamnionitis (0.06). However, the sample size was limited.

### CONCLUSION

Placental morphometric measurements were within the range, published for other studies. Pathological findings were in line with those, reported for larger cohort. While placental pathology during pandemics did not demonstrate immediate effect of pandemics, the programming effect of maternal conditions on fetal development still needs to be elucidated.

### 8. Adverse Effects of High Dose Melatonin on Psychiatric Disorders: A Case Report and Review of the Literature

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#### BACKGROUND

Melatonin (MLT) plays a vital role in initiating and maintaining the sleep-wake cycle. It is a hormone produced primarily from the pineal gland and frequently used as a sleeping aid for insomnias. The endogenous production of MLT typically decreases with age. The MLT is readily available over the counter (OTC) and not strictly regulated by the United States Food and Drug Administration (FDA). Since it falls under dietary supplements, effective monitoring of MLT's dosage and toxicity is lacking. This case report highlights a rare and unique instance of MLT-related psychiatric adverse effects and possible toxicity. It also emphasizes the importance of safety and risk management of MLT.

#### CASE DESCRIPTION

We report a case of a 70-year-old Caucasian female complaining of depressive symptoms due to a higher MLT dose intake (80 mg). Her hygiene was compromised due to extremely low energy and motivation. At subsequent follow-up in about 2 weeks after discontinuing Melatonin, Ms. X reported feeling a lot better with an improvement of her energy and motivation. Her depression and anxiety also improved significantly. Her Patient Health Questionnaire (PHQ-9) dropped from 15 to 5, and Generalized Anxiety Disorder (GAD) symptoms on the GAD7 scale from 10 to 2 within 6 weeks.

### CONCLUSION

All patients should be assessed for the use of over-the-counter medication/ supplement intake. Implementation of a robust safety and risk management plan would help to avoid and mitigate unfavorable outcomes. Patient education and awareness through physicians, drug manufacturers, and health departments are needed.

### 9. Rare Presentation of Gallbladder Neuroendocrine Neoplasm

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### BACKGROUND

Gallbladder neuroendocrine neoplasm (GB-NEN) is a heterogeneous neoplasm, originating from neuroendocrine cells, secreting peptides as neurotransmitter. Among all the neuroendocrine tumors (NETs), the GB-NEN prevalence is 0.5%, which is ~2.1% of all gallbladder tumors. Frequent locations are extrahepatic biliary NETs, at the common hepatic duct and distal common bile duct. Biliary obstruction is common upon presentation. Here we present a case of NET at the cystic duct with non-biliary obstruction feature.

#### CASE DESCRIPTION

45 year-old female with past medical history of hypertension, chronic gastroesophageal reflux, hypothyroidism, hyperparathyroidism with partial parathyroidectomy and laparoscopic gastric stapling for morbid obesity presenting with intermittent epigastric pain. Her evaluation was non-obstructive biliary feature. Abdominal ultrasound (US) was negative for cholelithiasis or cholecystitis. Hepatobiliary iminodiacetic acid scan (HIDA) of gall bladder (GB) showed ejection fraction 81% after a fatty meal. She underwent empirical laparoscopic cholecystectomy due to recurrent intermittent epigastric pain. Intraoperatively incidental NET of 0.8 cm entrapping the mid-portion of the cystic duct and focally extending into the adipose tissue at the GB neck but not involving the cystic duct mucosa or GB structure was noted and removed. The pathology report revealed a well-differentiated NET entrapping the cystic duct with negative margin for dysplasia and malignancy. Further Ki-67 image analysis was performed and the overall grade of the tumor was concluded to be grade 1.

#### CONCLUSION

GB-NEN is very rare and extrahepatic bile duct NET extremely difficult to diagnose. The clinical presentation and laboratory findings are non-specific and the mainstay of management is surgical removal.

### 10. Resident Lead Quality Improvement Project to Improve Screening of Depression in Texas Tech Physicians Internal Medicine Clinic in Odessa

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#### BACKGROUND

Depression is a common psychiatric disorder but is under-reported. The US Preventive Services and Taskforce recommends screening for depression in adults, aged 18 and older, including the postpartum women at least once a year.

### MATERIALS AND METHODS

We reviewed EMR of outpatients at the Texas Tech Internal Medicine resident clinic if screening for depression was done in the outpatients. All the patients were subjected to Patient health Questionnaire (PHQ)-2 and those with score more than 3, were subjected to PHQ-9 questionnaire. Screening was done inconsistently during October 2019 to January 2020. We educated the residents, nurses and nursing staff regarding the importance of screening for depression and sent multiple reminders to the staff to screen for depression. We continued reviewing EMR of outpatients in the next 4 months from February to May 2020 for the percentage of patients screened for depression.

### RESULTS

Our initial EMR chart review during October 2019 to January 2020 revealed that 42% patients underwent PHQ2 questionnaire and out of them, 8.4% patients were subjected to PHQ9. Of those who underwent PHQ9 questionnaire, 0.7% patients were referred to the Texas Tech Psychiatry clinic. After the education of the staff during February 2020 to May 2020, 70.6% patients underwent PHQ2 questionnaire. Of them, 1.1% underwent PHQ9 questionnaire.

### CONCLUSION

Even though, guidelines and infrastructure for screening of depression exist, it is frequently overlooked. Proper training of the staff in the primary care clinics need to be trained for good results. Automatic EMR alerts can aid in the process, eliminating human error.

### 11. The Story of the Heart's Wet Suit: A Case of Cardiac Tamponade with COVID-19 in a Young Female

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### BACKGROUND

Pericardial effusion is a dreaded sequela of COVID-19, subsequent tamponade is rare, and a potentially fatal complication. We describe a case of a young healthy female with COVID-19 related cardiac tamponade.

#### CASE DESCRIPTION

A 34 year old female with a medical history of hypothyroidism tested positive for COVID-19 one week prior to presentation. She presented with constant, central chest pain radiating to the back and shortness of breath (SOB) for 2 days. While evaluating her for hypotension and SOB, she started convulsing and was consequently mechanically ventilated. The patient's BNP was elevated at 2,470 pg/ mL, and cardiac troponin was 0.63 ng/mL. Initial electrocardiogram (EKG) showed a low voltage strip with sinus tachycardia, and electrical alternans. CT chest with contrast revealed a small non-tappable pericardial effusion. CT head was negative. With time, cardiac troponin increased to 5.18 ng/mL and vasopressor requirements prompted us to obtain bedside echocardiography, which demonstrated a large pericardial effusion with pre-tamponade physiology. Pericardiocentesis yielded 250cc of serous pericardial fluid. A pericardial window was left open. Postprocedural EKG showed resolution of prior findings. The patient was gradually weaned from cardiopulmonary support, and the pericardial drain was removed. Echocardiogram obtained at a 2-month follow-up showed a healthy heart with a normal ejection fraction.

#### CONCLUSION

A few case series have described cardiac tamponade in COVID-19 patients with an extensive history of cardiac disease. We describe the isolated occurrence of cardiac tamponade in a healthy young adult with COVID-19. It emphasizes the need for identifying the rapidly progressive course of this presentation, allowing timely intervention.

### 12. Outcomes in COVID-19 Patients Based on Demographics, Clinical Signs & Symptoms, Hematological, Immunological and Radiological Parameters

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### BACKGROUND

SARS COV-2 is a new pandemic, it mainly causes severe pneumonia and ARDS. We did a retrospective chart review for COVID-19 infection patients. These are patients admitted to in-patient MCH, from April 2020 to August 2020. Our goal is to evaluate patient demographics, symptoms, lab abnormalities, common radiologic findings, available treatment efficacy, length of stay, mortality and morbidity rate.

#### MATERIALS AND METHODS

Our research study included collecting data retrospectively from 166 patient charts who are above 18 years and diagnosed with COVID-19 infection at the time of admission from April 2020 to August 2020 at MCH hospital. Our main goal is to analyze data based on demographics, clinical signs and symptoms, hematological and radiological parameters.

### RESULTS

Average age group affected on admission is 62.6 yrs and BMI is 31.85. Infection affected both males (51.8%) and females (48.1%) equally. Ethnicity most affected are 57.2% Hispanic. Most of them presented with cough, SOB (54.94%). 22.8% presented with abdominal symptoms, 22.26% presented with CNS symptoms. LFT were elevated 2x upper limit of normal in 20.5%. Ferritin, D Dimer, Idh, CRP inflammatory markers were elevated in most of the patients and were correlating with disease severity. In patients who had prolonged PT- INR was noted to have prolonged hospital stay or associated with high mortality rate. Ground glass opacities are the common findings noted on CXR. Most of the patients received Azithromycin (87.1%) as standard of care, 25.3% received Remdesevir. 23.49% received convalescent plasma but average length of hospital stay in these patients was noted to be 19.7 days. Patients who received additional empirical antibiotics did not have any mortality benefit. On our review cause specific death rate due to COVID-19 infection in our hospital during this period is noted to be 12.04%. 16.26% got discharged to nursing home. 65.06% got discharged to home.

#### CONCLUSION

In our review patient mortality was noted to be 12.04%. Patients noted to require rehab after infection 16.26%. 65% patients recovered and got discharged to home. Average inpatient hospital days for all patients was 19.7 days.

### 13. Primary Splenic Diffuse Large B-cell Lymphoma (PS-DLBCL) with Associated Vitamin D-Mediated Hypercalcemia

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<sup>1</sup>Department of Internal Medicine, Texas Tech University Health Sciences Center at the Permian Basin, Odessa, TX, USA

### BACKGROUND

DLBCL represents 25 percent of all Non-Hodgkin Lymphoma (NHL), and is the most prevalent subtype in adults. Its association with the spleen is rare, being that PS-DLBCL is extremely uncommon. The prevalence and prognostic significance of paraneoplastic hypercalcemia, although frequently associated with NHL, has remained unclear.

### CASE DESCRIPTION

A 60-year-old female admitted for symptomatic hypercalcemia. Her hypercalcemia was associated with high concentrations of Calcitriol, suppressed parathyroid hormone (PTH) and normal PTH-related peptide (rP). Computed tomographic and Positron emission tomographic imaging showed a very large splenomegaly with associated hypermetabolic activity extending to the splenic hilum, peripancreatic region and mesenteric lymph nodes. Diagnostic splenectomy found a massive spleen with residual disease over the peripancreatic region and retroperitoneum. Pathological examination revealed PS-DLBCL, activated B-cell positive for CD20, BCL-2, BCL-6 and MUM-1. Upper endoscopy found a gastric mass consistent with gastric involvement of DLBCL.

### CONCLUSION

PS-DLBL related hypercalcemia is very uncommon with only few reports published. Although its correlation between hypercalcemia and aggressiveness of PS-DLBCL remains unclear, recent data suggests it is related with high-risk features and a short diagnosis-to-treatment interval. Hypercalcemia is thought to be secondary to paracrine secretion of PTH-rP or 1 alfa-hydroxylase induced vitamin D toxicity. Even though improvement of hypercalcemia and survival are expected after surgical resection of PS-DLBCL, initial management remains controversial. In our case, eucalcemia was achieved with medical therapy alone. She denied continuation of chemotherapy. The patient died 3 months after diagnosis from complications related to her surgery and chemotherapy.

### 14. Perception of Quality of Care in Obstetrics and Gynecology Outpatients' Clinic During COVID-19 Pandemics

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#### BACKGROUND

The massive impact that SARS-Cov-2 has had on a global scale is unprecedented in modern times. The aim of the study was to assess the opinions of patients to changes made to health care to meet the needs of patients in both clinics and virtual medicine setting during the COVID-19 crisis.

### MATERIALS AND METHODS

Pregnant and non-pregnant patients, who received prenatal care in the OB-GYN clinics of Texas Tech University Health Sciences Center, Permian Basin, during time-frame April-June 2020, were surveyed, using Likert scale. A mixed-effects ANOVA model was constructed using ImerT est package in R statistical software examining the main effects of time, language, and their interaction. Satterthwaite correction was applied to degrees of freedom.

### RESULTS

The questionnaire was distributed to 1145 patients, 107 105 patients agreed to complete survey (93 91 English (E) and 14 only Spanish (S) speaking. None of the patients had a history of positive SARS-CoV-2 test.

The mixed-effects ANOVA model revealed significant main effects for time (F = 9.805 (1,102), p=0.002), and a significant language x time interaction (F =24.820 (1,102), p<0.001).

#### CONCLUSION

Our data demonstrated, that while adjusting our practice to accommodate patients during pandemic and at the same time providing them with the highest level of care, we should also try to understand the things that are most important to them, their age-related, diagnosis-related, culture-specific, socio-economic status related needs and perceptions when it comes to choosing between in-person clinic visitation versus virtually guided medicine.

### 15. Ruptured Aortic Aneurysm Leading to cardiac Arrest and Perimortem Cesarean Section: A case report

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### BACKGROUND

Cardiac arrest is a rare occurrence in obstetrics, especially when requiring a perimortem cesarean section (CS). Current guidelines recommend to proceed with perimortem CS after five minutes of unsuccessful cardiopulmonary resuscitation; thus, one must act quickly and utilize strong teamwork and communication for the best possible outcome for mother and baby. This report will discuss the case of a preterm gestation complicated by a ruptured aortic aneurysm leading to cardiac arrest, perimortem CS, and delivery of a live fetus.

### CASE DESCRIPTION

A G2P1001 female at 32 weeks gestation presented to the Emergency Room (ER) due to acute onset of back, left arm, and chest pain. Her history included gestational diabetes in her previous term pregnancy and in her current pregnancy. The patient lost consciousness on her way to the ER; thus, limited information about her history was available. Cardiac arrest was diagnosed, cardiopulmonary resuscitation began, and the obstetric and NICU teams arrived immediately at the scene. Upon their arrival, approximately ten minutes of resuscitation had elapsed, and the decision was then made to proceed with perimortem CS. A viable fetus was delivered, but despite resuscitation efforts, the mother was pronounced deceased. Maternal autopsy revealed a ruptured aortic aneurysm.

### CONCLUSION

The incidence of cardiac arrest during pregnancy is approximately 1 in 30,000. Studies show that perimortem CS can not only save the fetus but also optimizes conditions for successful resuscitation of the mother. Although rare, knowledge and preparedness in these emergent situations is vital and effective communication and teamwork is key.

# POSTER PRESENTATIONS

Underline: Presenting author; \*: Corresponding author

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  Annu Dixit, M.D., Alice Fa, M.D., John Garza, Ph.D., Paula Gutierrez, M.S., Kushal
- 2. Downhill Esophageal Varices: An Uncommon Occurrence
  Alahari L., M.D., Chakrala K.\*, D.O., Mukkera S., M.D., and Ammu A., M.D.

Gandhi, Ph.D., and Gary Ventolini\*, M.D.

- 3. Abdominal Pregnancy- The Case of a Rare form of Ectopic Pregnancy Austin Barnes\*, M.D., and David Banh, M.D.
- 4. Trends for Electroconvulsive Therapy Utilization in Children and Adolescents in the United States from 2002 to 2017: A Nationwide Inpatient Sample Analysis

Chintan Trivedi, M.D., MPH, <u>Fatima Motiwala, M.D.</u>, Pranita Mainali, M.D., Zeeshan Mansuri, M.D., MPH, Abid Rizvi\*, M.D., Mahamudun Nabi, M.D., Mahwish Adnan, M.D., and Shailesh Jain, M.D., MPH, ABDA

- 5. Use of the QuantiFERON®-TB Gold Screen in OB Patients in a West Texas Academic Center- a Quality Improvement Study

  Annu Dixit, M.D., Catherine Weichmann, MS-4, and Elisa Brown\*, M.D.
- 6. A Rare Case Report: Quadruplet Pregnancy
  <a href="Chase Patterson">Chase Patterson</a>, M.D., Kushal Gandhi, Ph.D., Asley Sanchez, B.S., John Garza, M.D., and Gary Ventolini\*, M.D.
- 7. Term Complete Uterine Rupture with En Caul Expulsion: A Case Report Jerome Yaklic, M.D., Michael Galloway, D.O., Stanley Eboh, MS-3, Suna Burghul\*, D.O., and Gary Ventolini\*, M.D., FACOG, FAAFP
- 8. Role of Social Media Influencers in the Delivery of Healthcare: Literature Search and Evaluation of Current Influencers

  Michelle Grundstorm, M.D., Hesham Mahmood, M.D., and Sabeena Rahman\*, D.O.

Underline: Presenting author; \*: Corresponding author

- 9. Pseudobulbar Affect (PBA) in Traumatic Brain Injury
  Bobby Jain, M.D., Zeeshan Mansuri, M.D., Mitali Solanki, M.D., Kaushal Shah, M.D.,
  Gaurav Chaudhary, M.D., and Yashar Yousefzadeh\*, M.D.
- 10. A Case of Refractory Thrombocytopenia in a Chronic Cocaine User Govind Jha\*, M.D., Vivek Prasad, M.D., and Kelash Bajaj, M.D.
- 11. Bartholin Gland Duct Infection and Treatment Case Report
  Austin Barnes\*, M.D., Gary Ventolini\*, M.D., and Gloria Orozco, MS-3
- 12. Recurrent Diffuse Alveolar Hemorrhage (DAH) in Systemic Sclerosis (SSc) as Complication of Coronavirus Disease 2019 (COVID-19) Infection Carlos Felipe Matute-Martinez\*, M.D., Vedesh Babu, M.D., Ahmad Hamdan, M.D., Amanda Bell, MS-3, and Alejandra Garcia, M.D.
- 13. Does Sexual Abuse Affect Suicidal Ideation/Attempts and Psychiatric Illnesses in Posttraumatic Stress Disorder in Children and Adolescents? Pranita Mainali, M.D., Fatima Motiwala, M.D., Chintan Trivedi, M.D., MPH, Zeeshan Mansuri, M.D., Mahamudun Nabi, M.D., Mahwish Adnan, M.D., and Shailesh Jain\*, M.D., MPH, ABDA
- 14. Teaching Female Pelvic Anatomy Using Video Creation Simulation: A Resident Education Quality Improvement Project Elisa Brown\*, M.D., <u>Tina Thai, D.O.</u>, and Serin Thomas, M.D.
- 15. Unmasking DKA in Metformin Induced Lactic Acidosis

  Nithin R Venepally, M.D., Vedesh Babu, M.D., Alexander Bastidas, M.D., George
  Cao, MS-4, Pratibha Bandari, M.D., and Anand Reddy\*, M.D.
- 16. Heroin Relapse "Strikes a Nerve:" A Rare Case of Drug-Induced Acute Myelopathy

  Mandeep Sidhu, M.D., Armugam Mekala\*, M.D., Joshua Ronen, M.D., and Sai Mungara, M.D.

# Poster Presenting author; \*: Corresponding author

17. A Case of Inclusion Body Myositis Mimicking Polymyositis in an Elderly Male

Govind Jha\*, M.D., Ammu Anusha, M.D., and Mukkera Srikanth, M.D.

18. Physician Roles in Preventing Postpartum Depression by Improving Body Image: Literature Search

<u>Victoria Phan, M.D.</u>, Sarah Kennedy, M.D., Hesham Mahmood, M.D., and Sabeena Rahman\*, D.O.

19. Striking the Iron While it is Hot: Late Diagnosis of Hereditary Hemochromatosis in an Elderly Male

Neha Panchagnula, M.D., Eliana Milazzo, M.D., and Sarah Kiani\*, MBBS

20. Rare Mucosal Melanoma

Alahari L., M.D., Chakrala K.\*, D.O., Mukkera S., M.D., and Ammu A., M.D.

21. ECT Utilization in the Treatment of Catatonic Patients in the United States: A Nationwide in-Patient Sample Analysis

Chintan Trivedi, M.D., MPH, <u>Geetha Manikkara, M.D.</u>, Mingxu Zhang, M.D., Zeeshan Mansuri, M.D., MPH, and Shailesh Jain\*, M.D., MPH, ABDA

- 22. An Interdisciplinary and Multi-Departmental Study of Patient No-Shows <u>Jessica Solis, MBA</u>, MS-3, and Jeff Dennis\*, Ph.D.
- 23. A Case of Severe Cold Type Autoimmune Hemolytic Anemia and Hyperbilirubinemia Due to Epstein Barr Virus

<u>Karthik Chamarti\*, M.D.</u>, Aliuddin Ammar, M.D., Vedesh Babu, M.D., Harika Thummala, M.D., Bajaj Kelash, M.D.

24. The Role of Belimumab in the Management of Systemic Lupus Erythematosus Associated Serositis

Srikanth Mukkera\*, M.D., <u>Maneesh Mannem, M.D.</u>, Karthik Chamarti, M.D., Lakshmi P Alahari, M.D., and Anusha Ammu, M.D.

# Poster Presenting author; \*: Corresponding author

- 25. Two Swords in One Scabbard: A Case Report of Splanchnic Venous Thrombosis in a Patient without Necrotizing Pancreatitis

  Neha Panchagnula, M.D., Karthik Chamarti, M.D., Sai Siva Mungara\*, M.D.
- 26. Candida Parapsilosis and Candida Glabrata Osteomyelitis (OM): A Case Report of an Increasingly Prevalent Organism in OM and Wound Care EA Kadiri\*, M.D., <u>M Anbarserri, M.D.</u>, Y Oduwale, M.D., M Panda, M.D., and T. Deaver, M.D.
- 27. "The Liver's Assassin": What's Uncommon Can be Critical, a Case of Quinolone-Induced Acute Liver Failure

  Bibek Bakhati\*, M.D., Armugam Prasad Mekala, M.D., Victoria Sibi, M.D., Joshua Ronen, M.D., Sai Siva Mungara, M.D.
- 28. A Rare Case Report: Cutaneous *Candida Tropicalis* Infection Disguised as a Sacral Decubitus Rash in an Immunocompetent Individual

  Ben Lee, MS-3, Asley Sanchez, B.S., Kushal Gandhi, Ph.D., John Garza, Ph.D., and Gary Ventolini\*, M.D.

### 1. Rare Mucosal Vestibular Cysts: A Cohort Study

Annu Dixit<sup>1+</sup>, M.D., Alice Fa<sup>1+</sup>, M.D., John Garza<sup>1, 2</sup>, Ph.D., Paula Gutierrez<sup>2</sup>, M.S., Kushal Gandhi<sup>1</sup>, Ph.D., and Gary Ventolini<sup>1\*</sup>, M.D.

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### BACKGROUND

Genital lesions are a common complaint in gynecological office setting. Vestibular mucinous cysts are asymptomatic and benign lesions, but may cause complications. Vaginal and vulvar cysts are classified as embryologic and non-embryologic in origin. Embryologic cysts are caused by mucinous material, whereas non-embryologic cysts are caused by minor vestibular glands blockage. Diagnosis of cystic lesions usually perform by a physical exam, radiology imaging, and ultrasonography. We are presenting a cohort study of 6 patients who consulted our clinic due to an unfamiliar lesion observation during self-examination.

### CASE DESCRIPTION

Six patients were consulted at the University Specialized Vulvovaginal Clinic over a span of 16 years. Consultation was carried out as a well woman exam, with special note of cyst location, size and symptoms. Photographs were taken after proper informed consent was obtained, and three months follow up appointment was scheduled. Out of 5040 patients, six presented with vestibular mucinous cysts. Each of the cysts were different in size, color, and specific location in the vestibular introitus. Due to asymptomatic nature of these cysts, treatment was not pursued. All the patients were followed in order to monitor changes.

### CONCLUSION

The cases observed in this study are extremely rare. This condition was identified in approximately one in 800 patients at our clinic. Asymptomatic cysts do not require treatment, but symptomatic cysts may be treated with surgical intervention which comes with a possibility of cyst recurrence. The cases are valuable in providing further diagnosis and management guidelines regarding vestibular mucinous cysts.

### 2. Downhill Esophageal Varices: An Uncommon Occurrence

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### BACKGROUND

Upper esophageal varices, also known as downhill esophageal varices (DEV) are extremely rare when compared to distal esophageal varices due to cirrhosis. They are usually associated with various non-cirrhotic causes leading to obstruction of blood flow through the superior vena cava (SVC). We present a case with ESRD and obstruction proximal to SVC.

### CASE DESCRIPTION

A 63-year-old female with hypertension, chronic smoker, COPD, ESRD on hemodialysis was admitted for management of COVID pneumonia. Her course was complicated by melena and acute drop in hemoglobin requiring blood transfusion. Upper GI endoscopy revealed nonbleeding upper esophageal varices and no varices in the lower esophagus. CT angiography revealed stenosis of the Axillary vein and SVC was patent. She had multiple collaterals in the chest and abdominal wall only on the right side. Further review revealed that the patient had occluded arteriovenous fistula of the right arm multiple times and had stenting of the SVC in the past. She was managed conservatively and did not have further bleeding. She was discharged when stable.

### CONCLUSION

Downhill esophageal varices are a distinct entity from the more common distal esophageal varices. The causes are varied. In patients with ESRD and arteriovenous fistula, the excessive pressure from arterial blood flow through a vein or due to indwelling dialysis catheter causing damage to the intima and eventual fibrosis. Blood bypasses the obstructed vein by flowing inferiorly through esophageal and periesophageal veins into the inferior vena cava or into portal circulation causing DEV. Relief of obstruction is the main stay of treatment which can be challenging.

### 3. Abdominal Pregnancy- The Case of a Rare form of Ectopic Pregnancy

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<sup>1</sup>Department of Obstetrics and Gynecology, Texas Tech University Health Sciences Center at the Permian Basin, Odessa, TX, USA

### BACKGROUND

Ectopic pregnancies are estimated to account for 1-2% of pregnancies in the United States, with the vast majority arising in the fallopian tubes. These are obstetric emergencies due to their potential to cause maternal hemorrhage resulting in severe morbidity and potential mortality if not properly managed. A subset of the ectopic pregnancy, the abdominal pregnancy, is one that has implanted in the peritoneal cavity or on abdominal organs and represents approximately 1.4% of ectopic pregnancies. Rarely these pregnancies can progress to viability and even term, accounting for an estimated 1 in 10,000 births.

#### CASE DESCRIPTION

Here we describe a case where an abdominal pregnancy was identifiable on ultrasound imaging, however the diagnosis was missed until patient presented for emergency visit with severe abdominal pain and pregnancy loss several weeks later at approximately 14-15 weeks gestational age. The patient was otherwise stable hemodynamically, routine labs were not concerning, and Ultrasound confirmed diagnosis of abdominal pregnancy.

#### CONCLUSION

In evaluating a suspected abdominal pregnancy, one must have a high degree of clinical suspicion as the diagnosis may easily be missed, such as if the ultrasonographer does not evaluate for myometrium. The presentation can range from completely stable, to severe hemorrhage. The management of these pregnancies provides their own dilemmas beyond that of the more common ectopic pregnancy, and also varies somewhat depending on the gestational age at which they are diagnosed. However, with rare exception, abdominal pregnancies are interrupted at diagnosis even at advanced gestational ages due to the potentially devastating consequences for the unknowing mother.

4. Trends for Electroconvulsive Therapy Utilization in Children and Adolescents in the United States from 2002 to 2017: A Nationwide Inpatient Sample Analysis

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#### BACKGROUND

Electroconvulsive therapy (ECT) is controversial in children and adolescents (C/A). The primary objective of this study was to evaluate baseline characteristics of C/A in the utilization of ECT compared with the non-ECT group with the same primary indication. The secondary objective was to assess the trends in ECT utilization over 16 years and explore the predictors of length of stay.

#### MATERIALS AND METHODS

Using the Nationwide Inpatient Sample database from the years 2002 to 2017, we identified patients (age =18 years) undergoing ECT in the United States using International Classification of Diseases, Ninth Revision and Tenth Revision, Clinical Modification/Procedure Coding System codes and compared with non-ECT C/A patients with the same primary diagnosis. Baseline clinical characteristics were assessed using descriptive analysis methods. Multilevel regression analysis and trend analysis were performed.

#### RESULTS

Children and adolescent patients (n=159,158) receiving (ECT: n=1870) were more likely to be men (43.3% vs 36.7%) and of White race (58% vs 49%) (p<0.001). The hospital stay was longer (19 days vs 6 days, p<0.001) for the ECT group than controls. ECT receiving C/A patients were more likely to have private insurance (72% vs 42%, p<0.001). African American patients undergoing ECT treatment increased in number over the course of years (2002 to 2017), whereas the privately insured C/A patients receiving ECT decreased over the same period (p<0.001). There was an upward trend in ECT utilization for small bed size hospitals (p<0.001). Length of stay for C/A receiving ECT was longer for males (p<0.001) and patients with nonprivate insurance (p: 0.003).

#### CONCLUSION

Electroconvulsive therapy is not optimally used in C/A; therefore, formulated treatment guidelines are required.

### 5. Use of the QuantiFERON®-TB Gold Screen in OB Patients in a West Texas Academic Center- a Quality Improvement Study

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#### BACKGROUND

Effective screening for tuberculosis (TB) in pregnancy is difficult due to follow up of Tuberculin skin testing (TST), confounding BCG vaccination and added workflow identifying high TB risk status. Forgoing testing could leave latent and active TB untreated. QuantiFERON®-TB Gold serum-based TB testing and TST are approved by the Centers for Disease Control and the ACOG are appropriate screeners for tuberculosis in pregnant patients. QuantiFERON®-TB testing, however, does not require follow-up visit and are not altered by BCG vaccination. Objectives: To assess the effectiveness of a protocol using QuantiFERON®-TB screening of pregnant women.

#### MATERIALS AND METHODS

From January 2019 to October 2020, TB screening practices at TTUHSC PB were reviewed for TB risk assessment, screening and positives using electronic medical record. In November 2020, QuantiFERON®-TB screening was added to the prenatal care labs. Data was collected including numbers of QuantiFERON screens and numbers of positive results. Numbers of screens pre-and post-introduction of QuantiFERON®-TB Gold were compared to quantify effectiveness of the screening program.

#### RESULTS

4255 new OB visits were documented from January 2019 to May 2020, 2216 prior to instituting QuantiFERON screening and 2039 after. No TB screens were documented in the period before QuantiFERON screening. 80 screens were obtained after initiating QuantiFERON testing at a rate of 4% utilization of the new quality intervention. 2 positive QuantiFERON results were obtained, a 2.5 % positive rate per 100 patients tested.

#### CONCLUSION

This quality improvement measure significantly increased TB screening in our population. However, low overall QuantiFERON screening numbers point to as a weakness of the intervention.

#### 6. A Rare Case Report: Quadruplet Pregnancy

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#### BACKGROUND

While twin pregnancies are relatively common, triplet and higher order multifetal gestations are still a rare occurrence, accounting for only 93.0 per 100,000 live births in the United States in 2018 [Martin JA et al 2019] even with the advent of assisted reproductive technologies. Multifetal gestation comes with increased risk of significant maternal, perinatal, and neonatal complications. Antenatal care and surveillance of the pregnancies can often be quite complex and is aimed at minimizing these significant complications.

#### CASE DESCRIPTION

26 year old patient (G0), 3 years history of infertility, was visited the clinic with her husband. The normal medical and physical exam as well as sperm analysis were carried out. Normal physical/gynecological exam and normal hysterosalpingography result were reported with ovulatory dysfunction. The couple was agreed of a trial of Clomiphene Citrate (50 mg from day 5 to day 9 of the cycle, 100 mg to 150 mg on third cycle). Multiple pregnancy with quadruplets was occurred. During week of 31 3/7, one of the quadruplets was failed the biophysical profile, therefore cesarean section was executed.

#### CONCLUSION

This case serves as an example of the management of a higher order multifetal gestation. While efforts can be made to minimize complications, many of the pregnancies result in pre-term delivery for fetal indications such as failed BPP as discussed above. By utilizing increased antenatal surveillance, decision for delivery of higher-order multifetal gestations can be made in a manner that balances the maternal and perinatal risks with the neonatal complications associated with prematurity.

#### 7. Term Complete Uterine Rupture with En Caul Expulsion: A Case Report

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#### BACKGROUND

Spontaneous uterine rupture is a potentially catastrophic obstetric complication that has been associated with maternal mortality, fetal demise, postpartum hemorrhage, and the need for cesarean hysterectomy. The most important risk factor for uterine rupture is a scarred uterus, generally from a previous cesarean section (CS). Although presenting signs of uterine rupture can include extreme abdominal pain, vaginal bleeding, loss of fetal station, and fetal distress, patients can present asymptomatic or with vague and common complaints. This report will discuss the case of a term gestation complicated by an asymptomatic uterine rupture with En Caul expulsion of the fetus.

#### CASE DESCRIPTION

A 32-year-old G2P1001 at 39 weeks gestation presented to Labor and Delivery after 48 hours of abdominal pain, minimal vaginal bleeding, and not perceiving fetal movement. Her past obstetric history included a previous low-transverse CS 36 weeks prior. Her current pregnancy was uncomplicated. Ultrasound examination then confirmed intrauterine fetal demise. Uterine rupture was not suspected at this time, and the patient elected to proceed with a repeat CS. During the procedure, the fetus En Caul was discovered in the abdominal cavity. A hemostatic, complete rupture of the anterior uterine wall was then diagnosed.

#### CONCLUSION

Uterine rupture can present in many ways and should always be considered as a possibility in obstetrics. Although there is an increased risk of uterine rupture for those who attempt vaginal birth after cesarean, the best evidence suggests that absolute risks are low but patients must be counseled extensively on the risk of uterine rupture and subsequent outcomes.

### 8. Role of Social Media Influencers in the Delivery of Healthcare: Literature Search and Evaluation of Current Influencers

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#### BACKGROUND

In the ever changing scope of medicine paralleled to the ever evolving social media landscape, healthcare providers are constantly facing a challenge to relate to their patients and communicate effectively with them. Social media platforms such as Facebook, YouTube, Instagram, TikTok, and Twitter have become increasingly intertwined into our everyday lives and are the main source of information for many. Each platform has a different target audience, albeit a large audience. Social media has become the new "google" source that patients refer to at visits. Fortunately various professional colleges, such as ACOG, and individual practitioners also have a social presence providing accurate, evidence based data to the public. What role does social media play in the advancement and delivery of healthcare in patient care?

#### MATERIALS AND METHODS

Our literature search shows limited research on this topic. We limited our search to the past five years, 2016 to 2021. We used keywords social media influencer + healthcare education. We narrowed down from 1,984 results to 12 articles with adding the 'influencer' keyword and then further narrowed it down to 9 publications when the date range was applied. The timeframe was an important restriction as many of the social media outlets were not present even 2 years ago. Besides the literature search, we identified several healthcare practitioners, who are also social media influencers, with the number of followers and the type social media platform they utilized.

#### RESULTS

Currently many established medical figures have a large social media presence with upwards of a million followers. The platforms allow for a large captive audience and the possibility of increasing the medical literacy of the nation as a whole seems closer to being within our grasp than ever before. Twitter, YouTube, and Instagram were the platforms with the largest audiences.

#### CONCLUSION

Further evaluation is necessary to establish our role in patient education via social media. Many professional organizations and individual practitioners alike are creating a social media presence to reach out to patients. More research would help us evaluate the ideal methods for making a meaningful impact on patient education and wellness via social media.

#### 9. Pseudobulbar Affect (PBA) in Traumatic Brain Injury

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#### BACKGROUND

Pseudobulbar affect (PBA) is a poorly understood and underdiagnosed neurological disorder that exhibits depression-like symptoms. About 5.3% - 48.2% of people with traumatic brain injury may show PBA symptoms. We want to emphasize the role of a Psychiatry consultation service and the Center for Neurological Study-Lability Scale (CNS-LS) rating to rule out depression and help clinicians diagnose PBA accurately.

#### CASE DESCRIPTION

A day after head trauma, a 55-year-old Hispanic woman was brought to the emergency room (ER) by her husband, due to several episodes of localized clonic seizures. Kernig and Brudzinski signs positive. Non-contrast head Computed tomography scan showed left-side subdural hematoma, evacuated through left craniotomy successfully. Exhibited depressed mood, tearfulness, loud crying, uncooperativeness, medication refusal, and insomnia on Post-op day 2. No past personal or family history of psychiatric illnesses. She started on Fluoxetine 20mg daily orally (PO) and Olanzapine 5mg daily PO, later stopped after major depressive disorder ruled out by psychiatry consultation. CNS-LS confirmed PBA; scored 14 (>13 indicates PBA). Trazodone 50 mg PO improved her condition.

#### CONCLUSION

Emotional affect disinhibition in PBA is due to neural pathway lesion. Dextromethorphan (DM) + Quinidine (Q) and Trazodone are the mainstays of treatment. DM/Q (20/10 mg twice a day), an NMDA noncompetitive-antagonist, is only FDA-approved PBA pharmacotherapy. PBA exhibits affect lability with depressed mood, and it is challenging to diagnose without CNS-LS. Inadvertent administration of SSRIs can cause life-threatening intracranial bleeding due to its anti-platelet aggregation side effect. Trazodone improved her mood, sleep, irritability, PBA symptoms and was discharged home successfully.

#### 10. A Case of Refractory Thrombocytopenia in a Chronic Cocaine User

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#### BACKGROUND

Cocaine is a common cause of drug related ED visits in US. (1) Thrombocytopenia is being increasingly associated with use of cocaine or levamisole, a "cutting agent". The postulated mechanism including endothelial injury, direct antiplatelet activity, complement activation or ADAMTS 13 deficiency.

#### CASE DESCRIPTION

Case Description: A 51 yrs. male with a history of Diabetes Mellitus, hx of cocaine use was admitted with worsening petechial skin rash, and complaints of epistaxis and gum bleeding.

Physical examination was negative for Lymphadenopathy or stigmata of lymphoma. Lab studies: Severe Thrombocytopenia (5000) with normal hemoglobin, WBC and coagulation profile. ANA, hepatitis, HIV panel were negative. CT abdomen done and negative for lymphoma.

BM biopsy done and revealed: Adequate megakaryocytes, negative for granuloma, metastatic infiltrate, neoplasia.

In suspicion of ITP, patient started on high dose prednisone and IVIG therapy. Patient continued to have mucocutaneous bleeding and was nonresponsive to platelet transfusion therapy, IVIG and prednisone. Resistant ITP 2/2 cocaine use was not responding to medical therapy. Therapy with Rituximab azathioprine and cyclosporine was tried but thrombocytopenia persisted.

In view of refractory ITP, the patient underwent splenectomy. Post operatively, patient developed intraperitoneal bleeding, however, managed conservatively with PRBC transfusion. Platelet counts gradually started improving with resolution of mucocutaneous bleeding. At the time of discharge the platelet count had normalized.

#### CONCLUSION

ITP is a diagnosis of exclusion characterized by autoantibody mediated destruction of platelets. It is necessary to rule out conditions like SLE, HCV, CLL, HIV and drug use. First line therapy involves use of Glucocorticoid and IVIG with splenectomy reserved for refractory therapy unresponsive to medical management.

#### 11. Bartholin Gland Duct Infection and Treatment Case Report

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#### BACKGROUND

The Bartholin gland provides lubrication to the vagina and vulva. It is located deep within the posterior vulva and measures 0.5 to 1 cm. This gland becomes obstructed, leading to cysts and abscesses' development, a common gynecologic problem that accounts for two-percent female pelvic-related visits per year. Presentation ranges from asymptomatic to painful enlargement that disrupts regular activity. Abscesses of these glands are more common than a cyst. While these infections were often polymicrobial in the past, the most common etiology now is E. coli infection. The treatment choice is dependent on the patient's age, size, cyst or abscess, recurrences' chronicity, and history. Commonly abscesses are incised and drained, with Ward catheters' placement. Marsupialization stitches also have their place with large or recurrent abscesses.

#### CASE DESCRIPTION

A 26-year-old female presents to the clinic with a complaint of vaginal pain. She noticed swelling in her vagina and pain. On physical examination, there was swelling on the posterior vestibule of the labia minora. The location is suggestive of Bartholin gland duct contamination. She has a long-standing history of recurrent Bartholin gland duct infections with no sustained relief. A vaginal swab for culture showed a polymicrobial infection. She began treatment with Doxycycline 100-mg twice a day for 10-days.

#### CONCLUSION

Antibiotics have not been well-studied and applied as a treatment for abscesses after performing the aforementioned I&D procedure. However, here we describe a case where antibiotics may have their place.

### 12. Recurrent Diffuse Alveolar Hemorrhage (DAH) in Systemic Sclerosis (SSc) as Complication of Coronavirus Disease 2019 (COVID-19) Infection

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#### BACKGROUND

DAH is characterized by widespread bleeding of the pulmonary vasculature into the alveolar space. It has a myriad of underlying etiologies including Rheumatologic diseases. The COVID-19 pandemic has increased the complexity of diagnosing DAH. The increased inflammatory state secondary to COVID-19 has been associated with development of vasculitis syndromes. SSc has been linked to recurrent DAH.

#### CASE DESCRIPTION

A 61-year-old female with a past medical history of SSc, interstitial lung disease (ILD) and DAH presented with worsening shortness of breath of 2 days duration. She was found to have acute hypoxic respiratory failure. Computed tomography of thorax showed diffuse bilateral ground-glass opacities. SARS-Cov-2 polymerase chain reaction was positive. She was started on broad spectrum antibiotics and dexamethasone and received two units of COVID-19 Convalescent plasma. Due to respiratory distress, she was intubated. A decline in her hemoglobin prompted a diagnostic bronchoscopy that showed increasing frank blood in the bronchoalveolar lavage. Antinuclear antibody with centromere pattern and rheumatoid factor were positive with low complement C3 and C4. Steroids were switched to high-dose IV methylprednisolone. Three cycles of plasmapheresis were given with no clinical improvement.

#### CONCLUSION

COVID-19 may overlap and complicate the diagnosis of SSc-ILD. Severe COVID-19 is attributed to cytokine release. This likely worsens the underlying inflammatory process in SSc-ILD and could explain the development of DAH. Steroid therapy has proven to have mortality benefit in severe COVID-19. The role of steroids, plasmapheresis, immunomodulators and antifibrotic therapy in COVID-19 with SSc-ILD complicated with DAH is unknown.

### 13. Does Sexual Abuse Affect Suicidal Ideation/Attempts and Psychiatric Illnesses in Posttraumatic Stress Disorder in Children and Adolescents?

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#### BACKGROUND

Posttraumatic Stress Disorder (PTSD) develops in a third of minors who are sexual abuse victims. Our primary objective is to assess the baseline characteristics of PTSD minors with a history of sexual abuse (PTSD+S) and compare it with the PTSD minors without sexual abuse (PTSD-S). The secondary objective is to evaluate the psychiatric comorbidities and suicidal ideation/attempts between the groups.

#### MATERIALS AND METHODS

We analyzed the National Inpatient Sample (NIS) database from 2006-2014 using the International Classification of Diseases, Clinical Modification [ICD-9] code of PTSD, and history of sexual abuse. PTSD+S (n=251) subjects were compared with PTSD-S (n=24243) using t-test and chi-square test.

#### RESULTS

Predominantly non-white (52% vs 42%, p<0.001) female (81% vs 66%, p<0.001) children and adolescents (C/A) in the PTSD+S group were compared to PTSD-S. Major depressive disorders (MDD) (23% vs 14%, p<0.001), and substance use disorders (SUD) (20% vs 11%) were more commonly diagnosed psychiatric comorbidities in PTSD+S group (p<0.001). Suicidal behavior was more in PTSD+S than PTSD-S (36% vs 30%, p: 0.05). Overall, the risk of suicidal behavior was 29% more in the PTSD+S group than PTSD-S (Odds ratio (OR): 1.29, p: 0.05). In the multivariate analysis, after controlling for age and gender, comorbid diagnosis of MDD and SUD (p<0.001) were associated with increased suicidal behavior. However, PTSD+S did not show association with suicidality (OR: 1.16, p: 0.29) in the multivariate analysis.

#### CONCLUSION

Sexual abuse is associated with PTSD and is at higher risk of suicidal behavior. Indepth research on child C/A sexual abuse- chronic suicidality dyad is warranted.

### 14. Teaching Female Pelvic Anatomy Using Video Creation Simulation: A Resident Education Quality Improvement Project

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#### BACKGROUND

Pelvic anatomy instruction is an integral part of resident education in obstetrics and gynecology. Traditional didactic methods for teaching anatomy at the resident level have relied on lectures, cadaver labs, when accessible, and self-study. With the introduction of multimedia educational methods, new modes of resident instruction in pelvic anatomy have emerged. However, there has been little to no investigation of the use of video production as a means of teaching pelvic anatomy. *Objective:* To evaluate the use of video production as an adjunct tool in pelvic anatomy instruction.

#### MATERIALS AND METHODS

The obstetrics and gynecology resident at Texas Tech University Health Sciences Center Permian Basin was divided into three teams composed of all four PGY levels, a MS-4, an OB-Gyn faculty advisor. The teams were given instructions to produce pelvic anatomy instruction videos of five to seven minutes. Content requirements included segments on pelvic boney structure, pelvic musculature and ligaments, blood supply, innervation, pelvic organs and appropriate clinical correlations pertaining to their field. The videos were judged by separate Ob-Gyn faculty on content, originality and production quality using a 50-point scoring tool. Resident and MS-4 participants then completed a 6-question survey evaluating the project and its utility in teaching pelvic anatomy.

#### RESULTS

According to self-reported post project survey, 45% of responders reported minimal to moderate awareness of pelvic anatomy prior to the project and 100% reported that the project improved their knowledge.

#### CONCLUSION

Survey responses indicate the video simulation exercise strengthened resident knowledge of pelvic anatomy and its clinical correlations.

#### 15. Unmasking DKA in Metformin Induced Lactic Acidosis

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#### BACKGROUND

A very rare, though dangerous side-effect associated with metformin use is lactic acidosis seen in 0.4 cases/10,000 treatment years: with a mortality rate of about 30%. The incidence of Metformin-associated Lactic Acidosis (MALA) is estimated to be between 3.3-4.7/100,000 patient-years. We present a unique case of severe lactic acidosis presenting as MALA with diabetic ketoacidosis (DKA).

#### CASE DESCRIPTION

A 48-year-old female with type-2 diabetes mellitus on metformin was brought to the emergency-department for a 1-week of progressively worsening nausea, vomiting, generalized weakness, and altered sensorium. A review of her records showed that she had been diagnosed with renal insufficiency for which she failed to follow-up and had continued to take metformin. Arterial blood gas showed severe metabolic acidosis with an anion gap greater than 24. Despite starting a bicarbonate drip immediately, the patient developed cardiac arrest. Immediate hemodialysis was performed. Post-dialysis, the pH normalized; however, her acidemia persisted with an elevated BHB level at 10.11 mmol/L. After starting a fixed-dose insulin drip (0.1U/kg/hr), the high anion gap metabolic acidosis resolved.

#### CONCLUSION

The only two conditions where lactic acidosis persists despite dialysis is DKA and continued anaerobic glycolysis due to untreated underlying condition. Initially treated as MALA, the patient had significant clinical improvement following hemodialysis. Although the serum pH returned to normal, the high anion gap metabolic acidosis and elevated BHB resolved only after insulin was administered. MALA and diabetic ketoacidosis, though pathologically different conditions, can clinically present similarly making it difficult to differentiate.

### 16. Heroin Relapse "Strikes a Nerve:" A Rare Case of Drug-Induced Acute Myelopathy

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#### BACKGROUND

Heroin-induced myelopathy occur in patients recently re-exposed to heroin after a variable period of abstinence and could be attributed to hypersensitivity reactions due to prior sensitization, direct toxicity from heroin, a severe systemic reaction causing temporary vascular insufficiency especially to the vulnerable circulation in the thoracic cord, or arterial embolism.

#### CASE DESCRIPTION

A 31 year-old male with history of intravenous polysubstance abuse with recent relapse, presented with quadriplegia. Vitals on presentation were normal. Physical examination was significant for paraplegia and bilateral upper extremity strength of +3/5. Reflexes were absent in lower extremities and 1+ in upper extremities with absent rectal tone and sensations below the level of T2-T3. Bilateral extensor plantar response was elicited. Pertinent lab findings were: WBC Count of 16,600/mcL, creatinine phosphokinase of 8272 U/L, urine drug screen positive for opiates and amphetamines. MRI of the spine showed increased intramedullary signals extending from C2-3 to T1-2 suggesting transverse myelitis. Suspecting heroin-induced transverse myelitis, the patient received intravenous methylprednisolone 1 gram daily, with mild improvement. A follow-up spinal cord MRI revealed mild MRI lesion resolution. At the time of discharge, he still had unchanged lower extremity flaccid paralysis with urinary retention and loss of rectal tone.

#### CONCLUSION

Heroin addiction is a chronic disease which affects every aspect of a person's life, including job performance, family and social relationships, as well as mental and physical well-being. Therefore, medical therapy should be coupled with adequate rehabilitation and restoration, including physical health, mental and emotional health, and social and occupational functioning.

### 17. A Case of Inclusion Body Myositis Mimicking Polymyositis in an Elderly Male

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#### BACKGROUND

Inclusion Body Myositis, an idiopathic inflammatory myopathy predominantly affects older adults. It is characterized by gradual onset symmetric proximal muscle weakness associated with enzyme elevation. Diagnosis is based on clinical, laboratory and biopsy findings including mononuclear cell invasion of nonnecrotic muscle fibers, vacuolated fibers, Intracellular amyloid deposits, 15-18 nm tubulofilaments.

#### CASE DESCRIPTION

A 82 yrs. male with a history of hypertension, hyperlipidemia, Diabetes Mellitus, vitamin B12 deficiency presented with chronic weakness of 3-4 yrs, worsening for a duration of 2 weeks. Neurological examination showed normal neck strength, normal upper extremity strength, decreased lower extremity strength, with inability to lift legs however 3/5 dorsiflexors and plantar flexor strength. No recognizable skin rash seen.

Lab studies: Elevated CK at 38000, Aldolase 564, negative ANA, Anti smith, Anti Jo, Anti Ra antibodies, normal TSH, normal MRI of the spine.

Diagnosis of polymyositis was considered and patient started on pulse dosing methylprednisolone followed by immunoglobulin therapy with tapering dose of steroid and azathioprine.

Prior to therapy, muscle biopsy was done and revealed features of inclusion body myositis including scattered muscle fibers with rimmed vacuoles, mononuclear inflammatory cells throughout the endomysium, upregulation of MHC-I on viable muscle fibers.

With above therapy patients CK level started declining, and patient muscle strength started improving. The patient was rapidly tapered off steroids and continued on azathioprine, improved continuously until further clinical visits and normal muscle strength regained in 3 months.

#### CONCLUSION

Idiopathic inflammatory myopathy must be considered in patients presenting with gradual onset of muscle weakness and enzyme elevation. Patients with atypical presentation of inclusion body myositis benefit from immunosuppressive therapy.

### 18. Physician Roles in Preventing Postpartum Depression by Improving Body Image: Literature Search

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#### BACKGROUND

Perinatal depression affects one in seven women. Treatment of depression in pregnancy usually becomes the responsibility of the Ob/Gyn mainly due to the shortage of psychiatrists. In addition, maternal mental health care can cost upwards to \$2.2 billion according to the Texas Medical Association.

Initiation of preventative strategies could potentially alleviate this financial burden on the state and public health. Although depression triggers have been multifactorial, the role of body image and perception by patients has become a common theme in patients with postpartum depression. The question we want to address is if there are other modalities to help patients improve self-image in order to prevent postpartum depression.

#### MATERIALS AND METHODS

A literature search was performed using the keywords "postpartum depression" and "body image" in English ranging over the past 5 years. We focused on postpartum depression in our search and with this criteria, 10 publications were generated.

#### RESULTS

Our literature search showed a universal presence of body image concerns with postpartum depression but intervention was solely referral to a mental health specialist. One study evaluated the role of exercise in the improvement of body image. Studies showing intervention to improve self-image in women during pregnancy and postpartum are limited.

#### CONCLUSION

Postpartum depression and its complications are serious medical conditions which have a significant financial impact on our economy. Physicians aim for a preventative route for management of this disease, however, there have been limited studies. Therefore, further evaluation of therapies that can improve patients' self-image need to be studied.

### 19. Striking the Iron While it is Hot: Late Diagnosis of Hereditary Hemochromatosis in an Elderly Male

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#### BACKGROUND

Hereditary Hemochromatosis (HH) is a genetic condition caused by HFE gene mutations, most commonly in individuals of European descent. The H63D mutation is not as penetrant as the C282Y mutation. The rarity of penetrance of the homozygous H63D mutation is well-described in young adults. We describe a case of HH, manifesting itself in an elderly male with poorly controlled Type 2 Diabetes Mellitus (T2DM).

#### MATERIALS AND METHODS

A 74-year-old male with long-standing uncontrolled T2DM with complications, verified medication compliance, CAD, BPH, erectile dysfunction, hyperlipidemia was evaluated for poor control and macrocytosis unrelated to vitamin B12 deficiency, chronic alcoholism, or viral hepatitis. The patient's iron studies revealed a significantly elevated ferritin level of 924 ng/mL and transferrin saturation of 79% (normal 15-55%). Hematology was consulted for HH workup. The patient was homozygous for the H63D and negative for C282Y and S65C mutations. MRI of the abdomen showed susceptibility signal loss within the liver and spleen, in keeping with biochemical suggestions of hemochromatosis. In attempts to link this incidental finding to uncontrolled T2DM, we checked a 24-hour urinary C-peptide, which was conspicuously low at 0.4  $\mu$ g/24 hours (normal 17.2-181  $\mu$ g/24 hours), suggestive of endogenous insulin deficiency. To target this, a basal-bolus insulin regimen was initiated. He showed improvement in his HbA1C from 10.5% to 8.0%.

#### CONCLUSION

Our case report emphasizes that clinically silent HH with homozygosity for H63D mutation may present in elderly individuals and investigation should be pursued in patients with poorly controlled T2DM with concurrent hematologic or biochemical abnormalities.

#### 20. Rare Mucosal Melanoma

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#### BACKGROUND

Mucosal melanomas are extremely rare and carry worse prognosis than cutaneous melanoma. Evidence based management is not available due to rarity of the disease.

#### CASE DESCRIPTION

A 78-year-old Hispanic female with history of hypertension, hyperlipidemia and multiple cancers in the family, with complaints of abdominal pain, constipation and hematochezia for three months prior to admission, presented to her primary care. Colonoscopy was differed as she had normal colonoscopy less than two years ago and was treated for suspected hemorrhoids as an outpatient without any benefit. CT abdomen and pelvis revealed rectal wall thickening with perirectal lymphadenopathy and hepatomegaly. Rectal cancer with metastasis was diagnosed and the patient was referred to medical oncologist. The patient missed the appointment as she developed interim COVID-19 infection. She, later on, presented to us with unintentional weight loss and worsening jaundice. Physical examination was positive for jaundice and a rectal mass with no hepatosplenomegaly. Labs revealed mild Leukocytosis, normal hemoglobin, hyponatremia, creatinine 1.9, AST 329 and ALP 667, bilirubin 9.8, direct bilirubin 8.2 and LDH 8,255. Liver ultrasound showed multiple metastatic liver lesions along with a lesion near the head of the pancreas. Sigmoidoscopy revealed a large rectal mass, and biopsy was positive for primary malignant melanoma. As she had poor functional reserve, the medical oncologist did not recommend palliative chemotherapy. Nephrologist predicted grim prognosis. The patient's condition rapidly deteriorated with renal and hepatic failure and she opted for Hospice care.

#### CONCLUSION

Mucosal melanoma is an extremely rare entity. Early diagnosis and management are the key for better prognosis. Further research is needed to evaluate successful therapies.

### 21. ECT Utilization in the Treatment of Catatonic Patients in the United States: A Nationwide in-Patient Sample Analysis

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#### BACKGROUND

Primary objective was to evaluate baseline characteristics for catatonic patients treated with and without electroonvulsive therapy (ECT). We also studied the trends of ECT utilization in catatonia patients.

#### MATERIALS AND METHODS

The Nationwide Inpatient Sample data were used to compare patients and hospital-level characteristics between catatonic patients treated with and without ECT in the United States. Multivariate and trend analysis were performed.

#### **RESULTS**

Electroconvulsiv therapy was performed in 8.3% in patients with the diagnosis of catatonia (n=24,311; mean age, 43.1; 38% White; 52.1% male). Racially, more patients in the ECT group were White (47% vs 38%) and had a comorbid diagnosis of major depressive disorder. In the multivariate analysis, the odds of receiving ECT was more with increase in age (p=0.007). Urban area hospitals had 3 times higher odds of receiving ECT (p=0.001) compared with rural hospitals. The odds of receiving ECT for catatonia were the highest for large bed hospitals compared with small/medium size (p<0.001). In the trend analysis, catatonia patients undergoing ECT decreased initially from 7.0% in 2002 to 2005 to 5.2% in 2006 to 2009. After that, there was an upward trend with 10.6% patients undergoing ECT in the quarter 2014 to 2017. There was an upward trend in ECT utilization for catatonic patients with comorbid bipolar disorders and psychotic disorders.

#### CONCLUSION

Electroconvulsive therapy is underutilized for catatonia treatment in the United States. White catatonic patients are most likely to get ECT at an urban large bed hospital. In recent years, there is an upward trend in the use of ECT. Additional controlled clinical trials are warranted.

#### 22. An Interdisciplinary and Multi-Departmental Study of Patient No-Shows

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#### BACKGROUND

Patient no-show rates range from 7% to 33% across specialties and institutions. No-shows increase wait times and decreasing patient satisfaction. Non-adherence to scheduled visits can lead to unmanaged chronic conditions, worse health outcomes, and increased use of emergency care. Additionally, repeatedly missing appointments has been shown to lead to medication non-adherence, faster disease progression, and treatment failure. This study aims to understand clinic staff perspectives on no-shows to better understand how those with practical experience of the problem perceive it.

#### MATERIALS AND METHODS

A 14-question survey was distributed to all non-physician employees at Texas Tech Physicians. A total of 95 respondents completed the survey, about 61% of which reported having direct contact with patient scheduling.

#### RESULTS

Staff rated lost clinic revenue as the biggest repercussions of no-shows. Staff surveyed perceived forgetfulness, transportation, and inability to pay to be top contributors. New patient appointments and ED/hospital follow-ups were identified as the most likely appointment type to no-show. Manual calls and texts were identified as the most effective prevention strategies and robocalls the least effective. The most popular solution to no-shows was a fee.

#### CONCLUSION

Clinics have substantial interest in understanding why patients miss appointments. Many efforts have been made to understand this behavior, yet few studies have gathered perspectives from clinic staff. In comparing the results of our study with those of other quality improvement studies relying on retrospective patient data, we show that insight from surveyed clinic staff offers the same information as more time-intensive and costly data collection.

### 23. A Case of Severe Cold Type Autoimmune Hemolytic Anemia and Hyperbilirubinemia Due to Epstein Barr Virus

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#### BACKGROUND

Infectious mononucleosis (IMN) is the most common presentation of acute Epstein Barr virus infection. While more than 60% of patients with IMN develop cold type antibodies, only 0.5–3% of patients develop autoimmune hemolytic anemia. Here we describe a case of severe hemolytic anemia whose hemoglobin (Hb) dropped from 13 to 6.9 g/dl over the course of 4 days due to IMN.

#### CASE DESCRIPTION

A 22-year-old male with no past medical history, who was diagnosed with IMN 2 days ago presented to the emergency room due to abdominal pain. He did not have risk factors for hepatitis. He was pale and icteric. Vitals were notable for fever and tachycardia. His abdominal examination revealed hepatosplenomegaly. Labs revealed Hb of 6.9 g/dl and WBC of 6100 cells/mm3 (48% neutrophil, 20% lymphocytes). His direct antiglobulin test was positive for C3b, C3d. The cold agglutinin titer was 1:128 and total bilirubin was 22.1 mg/dL. He was transfused with 3 units of warm packed red blood cells. He was discharged home with supportive care. At the follow-up, he recovered completely and his Hb normalized to 14 g/dl.

#### CONCLUSION

The risk of patients with IMN developing severe hemolytic anemia is very rare. But this case illustrates the importance of follow-up because of the drop in Hb by more than 6 g/dl from his baseline. Studies have shown that steroid therapy has been less effective in patients having severe hemolysis due to high cold agglutination titers. Therefore, we deferred treatment with steroids, continued supportive care and the patient recovered completely.

### 24. The Role of Belimumab in the Management of Systemic Lupus Erythematosus Associated Serositis

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#### BACKGROUND

Systemic lupus erythematosus (SLE) is an autoimmune disease of unknown etiology that involves multiple organ systems with a plethora of clinical manifestations and immunological abnormalities. Due to the heterogeneous nature of the presentation, it is challenging for the clinicians to diagnose and manage the symptoms. The management of a patient with SLE depends on the presentation, severity, and the patient's response to medications. Medications such as antimalarials, NSAIDS, corticosteroids, azathioprine, methotrexate, cyclophosphamide, cyclosporine, and monoclonal antibodies such as rituximab and Belimumab are used for the treatment.

#### CASE DESCRIPTION

We herein report a patient of autoantibody-positive Systemic Lupus Erythematosus with recurrent abdominal pain due to serositis requiring frequent abdominal paracenteses. The patient was taking hydroxychloroquine, mycophenolate mofetil and prednisone at home. We started the patient on Belimumab as an add on therapy. In the following months, the frequency as well as the amount of fluid getting drained from the abdominal paracenteses decreased. The patient reported a decrease in her symptoms as well.

#### CONCLUSION

B-cells are known to play an essential role in the pathogenesis of SLE and the use of Belimumab, an anti-BLys (B-lymphocyte stimulator) human monoclonal antibody that inhibits B-cell proliferation makes a logical choice in the management of SLE. Although, several studies have shown the clinical application of Belimumab in the management of SLE, the exact role of the drug in the management of SLE still needs to be fully understood.

### 25. Two Swords in One Scabbard: A Case Report of Splanchnic Venous Thrombosis in a Patient without Necrotizing Pancreatitis

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#### BACKGROUND

Thrombosis of the splanchnic venous circulation in the absence of recurrent or necrotizing pancreatitis is a rare occurrence. Our case report encompasses the diagnostic workup and clinical course of a middle-aged female with such a presentation.

#### CASE DESCRIPTION

A 43-year-old female with a history of multiple abdominal surgeries presented to us with a 2-week history of abdominal discomfort, nausea, vomiting and obstipation. She was diagnosed with acute idiopathic pancreatitis, monitored for 24 hours, and was discharged from our facility, 5 days prior to arrival. On readmission, a computed tomography (CT) angiography of the abdomen revealed extensive splanchnic vein thrombosis. Imaging was negative for necrotizing pancreatitis. A repeat history was obtained, when the patient endorsed a remote history of provoked deep vein thrombosis. Intravenous anticoagulation was initiated. Auto immune and hypercoagulability work up was negative except for mutation of the Prothrombin gene. The patient was managed conservatively until clinical examination prompted repeat imaging, demonstrating extensive ischemia and gangrene of the small bowel. She underwent surgical resection of the small bowel. She was discharged on warfarin. At follow up, the abdominal wound healed well, and she was recommended indefinite anticoagulation.

#### CONCLUSION

The preeminence of history taking while practicing medicine is once again emphasized in our report. Our case report aims to sensitize the learner to the rare presentation of extensive splanchnic venous thrombosis in the absence of recurrent or necrotizing pancreatitis and to the essence of pursuing hypercoagulability workup to conclude on the synergistic effect of these occurrences.

### 26. Candida Parapsilosis and Candida Glabrata Osteomyelitis (OM): A Case Report of an Increasingly Prevalent Organism in OM and Wound Care

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#### BACKGROUND

Candida (C) osteomyelitis of the foot is uncommon. C. parapsilosis (P) wound infections and OM linked to immunosuppressed states, diabetes and an increase in elderly population have been reported by several studies. The factors responsible for colonization and the best modality for treatment are still evolving.

#### CASE DESCRIPTION

47-year-old male oil-field worker with comorbidities of hypertension, uncontrolled type II Diabetes mellitus with peripheral neuropathy and foot ulceration, gout, IBS, and OSA presented with one week of worsening blister-like wound on the medial side of his right hallux, associated with SIRS. MRI confirmed osteomyelitis of the distal great-toe. He underwent an uncomplicated incision and drainage with partial hallux amputation. Bone specimen cultures were positive for *C. parapsilosis* and a draining wound culture positive for *C. glabrata*. He was treated with Diflucan, Ciprofloxacin, Dakin's solution and topical miconazole powder.

#### CONCLUSION

The finding of multiple comorbid conditions is similar to previous reports in literature. Common mode of acquisition of *C. parapsilosis* and *C. glabrata* leading to OM was largely by hematogenous spread accounting for about 67%. The treatment of *Candida* OM and wound infections still varies widely among providers as current IDSA guideline are borne from low quality evidence from case reports. OM caused by non-albican candida organisms is on the rise and should be considered as a differential in immunosuppressed, elderly and diabetic patients with OM. Therapies should be sensitivities guided and where not available empirical treatment with Fluconazole, Capsofungin or Micafungin is acceptable.

### 27. "The Liver's Assassin": What's Uncommon Can be Critical, a Case of Quinolone-Induced Acute Liver Failure

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#### BACKGROUND

Many drugs are known to potentially cause liver injury, however only a few reports investigate the association between Levofloxacin and acute liver failure (ALF). We report an uncommon case of ALF caused by Levofloxacin.

#### CASE DESCRIPTION

A 65-year-old man who was admitted with a primary diagnosis of cerebrovascular accident (CVA) and acute coronary syndrome (ACS) developed an upper respiratory tract infection for which he was started on Levofloxacin. Following its administration, serum aspartate aminotransferase (AST) and alanine aminotransferase (ALT) increased more than 100 fold above the upper limit of normal. Over the next 24 hours, AST peaked at 9334 U/L, ALT at 4525 U/L, prothrombin time (PT) increased to 24.6 seconds, international normalized ratio (INR) to 2.22 and ammonia to 157 µmol /L. In addition to the abnormal blood chemistry, the patient had signs and symptoms of hepatic encephalopathy (HE). Levofloxacin was discontinued immediately and empiric treatment consisting of IV n-acetylcysteine, lactulose and rifaximin was initiated. This resulted in resolution of his coagulopathy, transaminitis, and HE.

#### CONCLUSION

This case represents a rare presentation of Levofloxacin-induced ALF and highlights the importance of its identification. Although its association remains to be defined, a high index of suspicion is required to recognize the signs and symptoms of acute liver injury and sequelae of decompensated liver disease subsequent to Levofloxacin treatment.

### 28. A Rare Case Report: Cutaneous *Candida Tropicalis* Infection Disguised as a Sacral Decubitus Rash in an Immunocompetent Individual

Ben Lee<sup>1</sup>, MS-3, Asley Sanchez<sup>1</sup>, B.S., Kushal Gandhi<sup>1</sup>, Ph.D., John Garza<sup>1</sup>, Ph.D., and Gary Ventolini<sup>1\*</sup>, M.D.

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#### BACKGROUND

Candida infection is seen in the patients with weak or disrupted host responses. Cutaneous candidiasis typically affects the intertriginous areas and presents with a red plaque surrounded by satellite lesions. Diagnosis of candidiasis is made by visual inspection followed by potassium hydroxide normal saline microscopic preparation (wet mount) and fungal polymerase chain reaction identification or culture.

#### CASE DESCRIPTION

The following case describes a 38-year-old patient with limited mobility and a peri sacral lesion that was first assumed to be a decubitus ulcer by nursing facility staff, but proved to be a cutaneous infection by Candida tropicalis, a less common Candida species. The unusual location and hyperkeratotic nature of the lesion are described, as well as the characteristic Candida tropicalis micro and macroscopic appearance that contributed to a cutaneous infection in an otherwise immunocompetent individual. The lesion resolved with fluconazole therapy.

#### CONCLUSION

Our case report emphasizes the need for early diagnosis of cutaneous lesions in patients with limited mobility in consideration that not all *Candida* species thrive in similar environments and can present in unusual locations of the human body. Although rare, *Candida tropicalis* could be found in this vulnerable population.

# notes

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