Proceedings of the 2nd Annual Faculty and Student Awards and Research Symposium
In 1963, a patent was issued for an innovation that revolutionized cardiovascular surgery—the first balloon catheter. Surprisingly, this brainchild of a medical student from the University of Cincinnati was initially rejected for publication by three mainstream surgical journals. Undeterred, this medical student, Thomas J. Fogarty, made the first balloon catheters by hand during his fellowship training and finally reported his experiences treating patients with emboli in 1965. Today, more than half a million Fogarty catheters are sold annually.

Medical students have always contributed to the advancement of medical science, but navigating the strange waters of medical literature and scientific journals is not a task for the faint of heart. Publishing original works is a protracted process, fraught with disappointment and uncertainty. Nonetheless, undaunted medical students embark upon this path repeatedly, albeit with little guidance. This journal aims to bridge the gap during those early years of medical students’ careers when unfamiliarity with publishing and peer-review are most prevalent.

Surprisingly, the peer-review systems we take for granted today hardly existed when Dr. Fogarty published his work in 1965. In fact, Nature magazine only adopted a formal peer-review system in 1967, almost 100 years after its inception in 1869. At present, widespread formal training for peer reviewers does not exist, and many experienced reviewers admit that their brand of reviews is a manifestation of years of experience and their own style.

The Florida Medical Student Research Journal (FMSRJ) was founded on the notion that medical students are capable of creating research worthy of publication. Furthermore, with guidance from leading specialists and faculty, these students are ripe to begin evaluating and editing the works of their peers. Trained by the research faculty at HWCOM, student editors and reviewers review each manuscript with a discerning eye not only to recognize its strengths but also to provide suggestions for improvement. Facilitating academic discourse and teamwork, this journal allows students the unique opportunity to prepare for a future in academic medicine. Moreover, it enables them to venture far beyond what is expected of a typical medical student.

The original concept for FMSRJ was conceived 14 months ago. Since then, we were delighted to discover that we join a handful of similar student initiatives across the country. We look forward to contributing to a vibrant conversation between students of different institutions.

The path to this inaugural publication was made possible by the unconditional support and enthusiastic encouragement of the Herbert Wertheim College of Medicine faculty. We are deeply indebted to our advisory board, including John A. Rock, MD, MSPH, Carolyn D. Runowicz, MD, Sheldon H. Cherry, MD, FACS, Juan M. Acuna, MD, MSc, Marin Gibbs, PhD, and Juan M. Lozano, MD, MSc. We would also like to extend special thanks to the FIU Law Review Editorial Board and to Jay Kumar of the Harvard Medical Student Review for their invaluable advice and support.

Editors in Chief
Emily S. Andersen                            Roy Lipworth

References:
LETTER FROM THE DEAN

SUBMISSION INSTRUCTIONS:
The FMSRJ accepts original articles, case studies, and reviews that adhere to the CONSORT, STROBE, CARE, and PRISMA checklists.

Originality:
1. The Florida Medical Student Research Journal only accepts submissions that have not been published previously. Manuscripts that are currently under consideration by another publication will not be simultaneously considered by the FMSRJ. If the status of a manuscript is in question, please consult the recommendations of the International Committee of Medical Journal Editors (ICMJE) regarding “Overtapping Publications” at http://www.icmje.org/recommendations/browse/publishing-and-editorial-issues/overlapping-publications.html.
2. All manuscripts will be screened for plagiarism.

Authorship:
1. Authorship Criteria:
   a. Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
   b. Drafting the work or revising it critically for important intellectual content; AND
   c. Final approval of the version to be published; AND
   d. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
2. First Author: At the time of submission, the first author of the manuscript must be a medical student currently attending an accredited medical college in the United States or abroad.
   a. Correspondence: The name, address, e-mail address, and telephone number of the first author shall be included on the title page. This author is responsible for communicating with all other authors about revisions to the manuscript.
3. Other Authors: The manuscript has been read and approved by all other authors, indicating their confidence that all contents are genuine, accurate, and current. The manuscript has no other uncredited authors.
5. Patient Protection: Authors must remove all identifiable patient information from the manuscript in accordance with HIPAA regulations or face rejection by the FMSRJ. For clarification, please consult the Summary of the HIPAA Privacy Rule at http://www.hhs.gov/ocr/privacy/hipaa/understanding/summary/privacysummary.pdf.
   a. IRB approval letter – All studies involving human subjects must be submitted along with an approval from the institutional review board (IRB).
   b. Informed consent forms – For case studies. Informed consent forms can be submitted with the manuscript. If it does not satisfy the FMSRJ review committee, the author may be required to submit a new consent form based on the templates found on http://research.fiu.edu/irb/pages/informed-consent-template.html

Visit our website for more information about submissions: http://medlib-fiu.beta.libguides.com/review

References:

Florida International University is designated as a top-tier research institution by the Carnegie Classification of Institutions of Higher Education, and since the founding of Florida International University Herbert Wertheim College of Medicine, research has been an important component of the doctor of medicine degree curriculum. Every medical student is required to complete a basic science or clinical research project prior to graduation. Students submit their own research proposals and are mentored by faculty as they frame questions, develop protocol, collect and analyze data, interpret findings, and draft manuscripts for publication. And therein lies the conundrum: how does a medical student get his or her work published?

Peer review is a widely accepted practice for validating research publications, but medical students often find it challenging to have their work considered by established medical journals. Florida Medical Student Research Journal (FMSRJ), a student-led research journal initiated by our medical students at FIU, offers opportunities for medical students to have their work assessed by reviewers who are truly their peers. This platform allows students to become active in academic publishing early in their medical education, and to develop skills for lifelong learning that are critical in maintaining competency as a scientist and as a physician.

Clearly the digital age is upon us. Books and journals once purchased in stores or perused in libraries are now available online in digital form. Information is accessible at the point of learning—in classrooms, bedside, or bench—at the tap on the screen of a smart phone or tablet. But while the method of accessing peer-reviewed journals may have changed, the need for the information contained in these journals has not.

I commend the FMSRJ Editors-in-Chief for their initiative in developing this new journal, and all students involved in peer review and publishing in this first issue. They demonstrate the same pioneering spirit that brought FIU Herbert Wertheim College of Medicine to fruition less than a decade ago. The spirit of scientific inquiry is what drives innovation in health care, and I invite medical students everywhere to share their experience.

Sincerely,

John A. Rock, MD

Founding Dean and Senior Vice President for Health Affairs
Florida International University Herbert Wertheim College of Medicine
### Thursday, April 28, 2016

**TIME** | **EVENT** | **LOCATION**
---|---|---
8:30 a.m. | Registration Opens | Lobby
9:00 a.m. | Poster Presentations I | Lobby
10:45 a.m. | Welcome Address | Room 101
10:50 a.m. | Launch of the Inaugural Florida Medical Student Research Journal | Room 101
11:00 a.m. | Awards Ceremony | Room 101
1:00 p.m.  | Luncheon and Keynote Speaker | Lobby, Room 101
2:45 p.m.  | Oral Presentations I | Room 101
4:30 p.m.  | Adjourn | Room 101

### Friday, April 29, 2016

**TIME** | **EVENT** | **LOCATION**
---|---|---
8:00 a.m. | Registration Opens | Lobby
8:25 a.m. | Opening Remarks | Room 101
8:30 a.m. | Oral Presentations II | Room 101
10:45 a.m. | Break | Room 101
11:00 a.m. | Poster Presentations II | Lobby
12:00 p.m. | Lunch Break, On Your Own | Room 101
1:00 p.m.  | Oral Presentations III | Room 101
2:15 p.m.  | Capstone Presentations | Room 101
3:30 p.m.  | Break | Room 101
4:00 p.m.  | Oral Presentations IV: Residents | Room 101
5:30 p.m.  | Poster Presentations III: Residents | Lobby
6:30 p.m.  | Closing Remarks | Room 101

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**HERBERT WERTHEIM COLLEGE OF MEDICINE ADMINISTRATION**

**2016 ANNUAL FACULTY AND STUDENT AWARDS AND RESEARCH SYMPOSIUM**

**AT-A-GLANCE**

**Thursday, April 28, 2016**

- **TIME**: 8:30 a.m.
- **EVENT**: Registration Opens
- **LOCATION**: Lobby

**Friday, April 29, 2016**

- **TIME**: 9:00 a.m.
- **EVENT**: Poster Presentations I
- **LOCATION**: Lobby
# Poster Presentations I

**Thursday, April 28, 2016**

9 a.m. - 10:45 a.m.

<table>
<thead>
<tr>
<th>AUTHORS</th>
<th>TITLE</th>
<th>FIELD</th>
<th>ABSTRACT ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ricardo Siu</td>
<td>Adaptive control of lung volume for respiratory pacing in the rodent model</td>
<td>Basic Science</td>
<td>P1</td>
</tr>
<tr>
<td>Mariluz Sonia, Brian Ho, Javier How</td>
<td>Humanized relaxin receptor mouse model for testing small molecule modulators</td>
<td>Basic Science</td>
<td>P2</td>
</tr>
<tr>
<td>C.J.Kwan, Shreya Mishra</td>
<td>Association between type-2 diabetes and in-hospital mortality in Puerto Rican patients hospitalized with decompensated heart failure</td>
<td>Cardiology</td>
<td>P3</td>
</tr>
<tr>
<td>Areej Bukhari, Alexandra Lee, Nicholas V. Mendez</td>
<td>Association between gender and mortality among Puerto Rican patients hospitalized for heart failure with preserved ejection fraction</td>
<td>Cardiology</td>
<td>P4</td>
</tr>
<tr>
<td>Aws Al-Abdullah, Hanns Frimpong, Omer Shahab</td>
<td>Serum calcium levels on admission and in-hospital mortality after incidental acute myocardial infarction</td>
<td>Cardiology</td>
<td>P5</td>
</tr>
<tr>
<td>Rafael Paez, Abraham Alfonso Ramirgo, Robin Joseph</td>
<td>Differences in symptomatology between Puerto Rican men and women presenting with acute myocardial infarction</td>
<td>Cardiology</td>
<td>P6</td>
</tr>
<tr>
<td>Ryan Shay, Ceciyy Kopuczka, Joseph Volaris</td>
<td>The effect of beta-blockers on in-hospital mortality in patients with acute myocardial infarction</td>
<td>Cardiology</td>
<td>P7</td>
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<tr>
<td>Brandon Schwartz, Ben Joseph, Alexandra Alvarez</td>
<td>Gender differences in in-hospital mortality in patients with diastolic heart failure in the Puerto Rican population</td>
<td>Cardiology</td>
<td>P8</td>
</tr>
<tr>
<td>Hannah Gordon, Shana Sanford</td>
<td>Impact of mode of transportation on in-hospital mortality in Puerto Rican patients hospitalized with an acute myocardial infarction</td>
<td>Cardiology</td>
<td>P9</td>
</tr>
<tr>
<td>Terence Daley-Lindo, Benjamin J Levens, Michael O’Laughlin</td>
<td>In-hospital mortality rate differences between academic and non-academic hospitals in Hispanic patients with acute myocardial infarction</td>
<td>Cardiology</td>
<td>P10</td>
</tr>
<tr>
<td>Emily Tongdee</td>
<td>Diffuse dermal angiomatosis: a case report and review of the literature</td>
<td>Dermatology</td>
<td>P11</td>
</tr>
<tr>
<td>Emily Tongdee</td>
<td>A case of twenty nail dystrophy: a review of treatment options</td>
<td>Dermatology</td>
<td>P12</td>
</tr>
<tr>
<td>Emily Tongdee</td>
<td>Cogan’s syndrome with cutaneous findings: a case report and review of dermatologic manifestations</td>
<td>Dermatology</td>
<td>P13</td>
</tr>
<tr>
<td>Emily Tongdee</td>
<td>Keloidal atypical fibroxanthoma: cases and review of the literature</td>
<td>Dermatology</td>
<td>P14</td>
</tr>
<tr>
<td>Benjamin J Levens</td>
<td>Acute liver failure following minor outpatient surgery: a case report</td>
<td>Gastroenterology</td>
<td>P15</td>
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<tr>
<td>Emmanuelle Allseits, Mariel Cataldi, Hauchie Pang</td>
<td>The association between source of healthcare and cancer screenings among Haitian residents in North Miami</td>
<td>Health Services</td>
<td>P16</td>
</tr>
<tr>
<td>Helen Mclaughlin</td>
<td>The effect of insurance status and ethnicity on delays in seeking medical care in North Miami</td>
<td>Health Services</td>
<td>P17</td>
</tr>
<tr>
<td>Lisa Podolsky</td>
<td>Association between prior training in LGBTQ patient care and medical students’ comfort addressing health concerns in LGBTQ patients</td>
<td>Medical Education</td>
<td>P18</td>
</tr>
<tr>
<td>Alexandra Kovar, Cynthia Lopez</td>
<td>Evaluating the need for implementation of a peer mentoring network at Florida International University Herbert Wertheim College of Medicine and its success after one year</td>
<td>Medical Education</td>
<td>P19</td>
</tr>
<tr>
<td>Katherine Lawrence</td>
<td>The role of pre-clinical and clinical training in LGBT and sexual health history-taking on medical students’ comfort with gender and sexuality health concerns</td>
<td>Medical Education</td>
<td>P20</td>
</tr>
<tr>
<td>Adam Tagliero, Peter D’Amore</td>
<td>Behind the White Coat Lecture Series</td>
<td>Medical Education</td>
<td>P21</td>
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<tr>
<td>Manju Korattiyil, Monica Hajrawala, Sarah Lawand</td>
<td>Determining associations between adverse childhood experiences and bullying perpetration in U.S. pediatric population: a cross-sectional study</td>
<td>Mental Health</td>
<td>P22</td>
</tr>
<tr>
<td>Manesh Gopaladas</td>
<td>Polysaturated fatty acid associations with serotonin transporter binding in major depressive disorder assessed with [11c]DASB PET</td>
<td>Mental Health</td>
<td>P23</td>
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</table>
### Oral Presentations I

**Thursday, April 28, 2016**
2:45 p.m. - 4:30 p.m.

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<tr>
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<tbody>
<tr>
<td>Iru Paudel</td>
<td>Sab-mediated signaling regulates mitochondrial fission</td>
<td>Basic Science</td>
<td>O1</td>
</tr>
<tr>
<td>Beatriz Collada, Roberto Marticorena-Martinez, Reeni Pandya</td>
<td>Association between peak troponin levels and in-hospital mortality in Puerto Rican patients with acute myocardial infarction</td>
<td>Cardiology</td>
<td>O2</td>
</tr>
<tr>
<td>Kyle Schmitt</td>
<td>Off hour emergency room admission effects on mortality of myocardial infarction in Puerto Rico</td>
<td>Cardiology</td>
<td>O3</td>
</tr>
<tr>
<td>Davek Sharma, Scott MacDougall, Uday Malhotra</td>
<td>Gender differences in in-hospital mortality in Puerto Ricans with acute myocardial infarction as modified by reperfusion technique</td>
<td>Cardiology</td>
<td>O4</td>
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<tr>
<td>Alex Pop, Corey Saraceni</td>
<td>Association of mortality in myocardial infarction between off-hour and work hour hospital admission in Puerto Rico in years 2007, 2009, 2011</td>
<td>Cardiology</td>
<td>O5</td>
</tr>
<tr>
<td>Annum Bhullar, Tamal Roy</td>
<td>Association between wait time in the emergency department and endotracheal intubation in asthmatic patients in the United States</td>
<td>Emergency Medicine</td>
<td>O6</td>
</tr>
<tr>
<td>Alexandra Lewis, Nicholas Miles</td>
<td>Household level of education as a determinant of emergency department use for primary care needs in North Miami-Dade county</td>
<td>Health Services</td>
<td>O7</td>
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</table>

### Oral Presentations II

**Friday, April 29, 2016**
8:30 a.m. - 10:45 a.m.

<table>
<thead>
<tr>
<th>AUTHORS</th>
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<tr>
<td>Vincent Boston, Bryan Vo, Chen Ye</td>
<td>Association between wait time in emergency department and patients leaving against medical advice (LAMA)</td>
<td>Health Services</td>
<td>O8</td>
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<tr>
<td>Chas Boyd, Pedro Rojas, Annie Rouza</td>
<td>Association between primary language spoken and pap-smear screening in Little Haiti households</td>
<td>Health Services</td>
<td>O9</td>
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<tr>
<td>Devika Bhatia</td>
<td>Race/ethnicity and the prevalence of adolescent smoking initiation</td>
<td>Health Services</td>
<td>O10</td>
</tr>
<tr>
<td>Angelica Delgado, Steve McCauley</td>
<td>Examining the relationship between the main language spoken at home and eating practices in North Miami-Dade County households</td>
<td>Health Services</td>
<td>O11</td>
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<tr>
<td>Jeanette Polcz, Tyler Haertlein, Jeffrey Savin, Matthew Franco</td>
<td>Cost-effectiveness analysis on the participation of multidisciplinary student teams on compliance to cervical cancer screening recommendations in the Green Family Foundation Neighborhood HELP Program (NHELP)</td>
<td>Medical Education</td>
<td>O12</td>
</tr>
<tr>
<td>Patrick Deligero, Punya Narain, Varsha Rammarine</td>
<td>The association between partner violence and teenage pregnancy: effect modification by race</td>
<td>Mental Health</td>
<td>O13</td>
</tr>
<tr>
<td>Brights Lasser, Adrienne Warp, Matthew Shapiro</td>
<td>Marijuana use and the risk of suicidal ideation in American high school students</td>
<td>Mental Health</td>
<td>O14</td>
</tr>
<tr>
<td>Mary-Ann Abraham, Brittany Casey, Danielle Smith</td>
<td>The association between socioeconomic status and severity of anxiety in adolescents with special health care needs in the U.S.</td>
<td>Mental Health</td>
<td>O15</td>
</tr>
<tr>
<td>Supurna Dhar</td>
<td>Identification of Ampr effectors in Pseudomonas aeruginosa regulating β-lactam resistance</td>
<td>Microbiology/Genetics</td>
<td>O16</td>
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<tr>
<td>Gender disparities in the administration of thrombolytic therapy in Hispanics with acute ischemic stroke</td>
<td>Robert Bilbao, Nibras Chowdhury</td>
<td>Neurology</td>
<td>P24</td>
</tr>
<tr>
<td>Alcoholism and in-hospital mortality among hemorrhagic stroke patients in Puerto Rico</td>
<td>Andrew A. Moses, Liza Smirnoff, Ryan Pilling</td>
<td>Neurology</td>
<td>P25</td>
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<tr>
<td>Mechanical fatigue testing of an implantable intravascular electrode system</td>
<td>Andres Pena</td>
<td>Neurology</td>
<td>P26</td>
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<tr>
<td>The association between 1-PA administration and in-hospital mortality following acute ischemic stroke in Puerto Rican patients</td>
<td>Kevin Shah, Samuel Kohrman, Suhby Akhtar</td>
<td>Neurology</td>
<td>P27</td>
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<tr>
<td>The role of autophagy in HIV-1 Tat Induced neurodegeneration using beclin-1 heterozygous mouse behavior model</td>
<td>Jessica Lapierre, Myosotis Rodriguez, Madhavan Naik, Nazra El-Hage</td>
<td>Neurology</td>
<td>P28</td>
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<tr>
<td>Mode of transportation to hospital predicts mortality in acute stroke patients in Puerto Rico</td>
<td>Sean Hernandez, Eric Knott, Carl Wilkins</td>
<td>Neurology</td>
<td>P29</td>
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<tr>
<td>A comparative analysis of stroke in Haitian and non-Haitian populations of South Florida</td>
<td>Christopher Brown, Juan Lopez, Benjamin Stratis</td>
<td>Neurology</td>
<td>P30</td>
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<tr>
<td>F-FLT positron emission tomography / computed tomography imaging in pancreatic cancer: determination of tumor proliferative activity and comparison with glycolytic activity as measured by 18F-FDG positron emission tomography / computed tomography imaging</td>
<td>Sathit Debebe, Mohammed Goryawala, Malek Adjouadi, Anthony J McGregor, Seza Güleç</td>
<td>Nuclear Medicine/Radiology</td>
<td>P32</td>
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<tr>
<td>Keeping the family healthy: unintended pregnancy as a risk factor for post-partum depression in the United States</td>
<td>Christina Gauthreaux, Jenesis Negron, Juan Acuña, Daniel Castellanos</td>
<td>O&amp;G</td>
<td>P33</td>
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<tr>
<td>Gestational weight gain and preterm delivery according to maternal age</td>
<td>April Ballard, Michelle Chamoun, Stephanie Laret</td>
<td>O&amp;G</td>
<td>P34</td>
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<tr>
<td>Combined abdominoplasty and gynecologic procedures - assessment of operative complications</td>
<td>Elizabeth Nagooda, Kevin Liu</td>
<td>O&amp;G</td>
<td>P35</td>
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<tr>
<td>Association between marital status and survival post-melanoma in Florida patients</td>
<td>Jared Maas, Alberto Monreal, Efren Diaz</td>
<td>Oncology</td>
<td>P36</td>
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<tr>
<td>The impact of insurance status on stage of colorectal cancer at diagnosis</td>
<td>Robert Altman, Krista Miller, Yael Simons</td>
<td>Oncology</td>
<td>P37</td>
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<tr>
<td>Adjuvant chemotherapy in the treatment of pediatric cerebellar cancer</td>
<td>Sagar Shrivasatav, Priya Verma, Andrew Nashed</td>
<td>Oncology</td>
<td>P38</td>
</tr>
<tr>
<td>Racial and ethnic disparities in pancreatic adenocarcinoma</td>
<td>Alexander Fagerson, Sara Grossi, Kelsey Musgrove</td>
<td>Oncology</td>
<td>P39</td>
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<tr>
<td>Mortality difference between uveal and conjunctival melanoma in Florida between 1981 and 2015</td>
<td>Marah C Tillman, Han Yang Yin</td>
<td>Oncology</td>
<td>P40</td>
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<tr>
<td>Targeted and controlled anticancer drug delivery and release with magnetoelectric nanoparticles</td>
<td>Alexandra Rodzinski, Rakesh Guduru, Emmanuel Stimpl</td>
<td>Oncology</td>
<td>P41</td>
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<tr>
<td>Combined BHS and metabolic profiling as a method to define therapeutic response and resistance in grade IV astrocytomas</td>
<td>Monica Rodriguez Silva</td>
<td>Oncology</td>
<td>P43</td>
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<tr>
<td>Anatomical preparation method for Achilles tendon allograft in anterior cruciate ligament repair</td>
<td>Matthew Sussman, Jena Fujimoto</td>
<td>Orthopaedics</td>
<td>P44</td>
</tr>
<tr>
<td>Neurological symptoms in children with intussusception and their outcomes at a large community hospital</td>
<td>Greet Carmenate, Daniel Castro</td>
<td>Pediatrics</td>
<td>P45</td>
</tr>
<tr>
<td>Pulse oximetry use in detecting congenital heart defects in asymptomatic infants: a look at how recommendations are implemented in the hospital setting</td>
<td>Kelsey Schweiburger, Caitlyn Kenny</td>
<td>Pediatrics</td>
<td>P46</td>
</tr>
<tr>
<td>Does obesity affect outcomes in children admitted from trauma centers?</td>
<td>Prashanth Shanmugham</td>
<td>Pediatrics</td>
<td>P47</td>
</tr>
<tr>
<td>Prematurity and an increased risk of epilepsy in a population of united states children aged 0-17 years</td>
<td>Christina Roy, Francis T, Lin WC, C Nhieu M, A Kuan-Celarier, Prashanth Shanmugham</td>
<td>Pediatrics</td>
<td>P48</td>
</tr>
<tr>
<td>Access to prescription medications as an indicator of school day absenteeism for children with special health care needs</td>
<td>Arina Magdi Said</td>
<td>Pediatrics</td>
<td>P49</td>
</tr>
<tr>
<td>Investigating the physiological effects of entrodrazeal suction in the pediatric intensive care unit</td>
<td>Fatsos T, Lin WC, Totapally B</td>
<td>Pediatrics</td>
<td>P50</td>
</tr>
<tr>
<td>Venous thromboembolism incidence, risk factors, and prophylaxis in 332 patients who underwent robotic hysterectomy with staging for uterine cancer</td>
<td>A Kuan-Celarier, C Nhieu M</td>
<td>Surgery</td>
<td>P51</td>
</tr>
<tr>
<td>Biomedical characterization of Ars: a novel C-As lyase for degradation of environmental organarsencials</td>
<td>Shashank Pawitwar</td>
<td>Toxicology</td>
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Oral Presentations III

Friday, April 29, 2016
1 p.m. - 2:15 p.m.

<table>
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<th>AUTHORS</th>
<th>TITLE</th>
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<tbody>
<tr>
<td>James Li</td>
<td>Association between radiation dosage and pain relief in trigeminal neuralgia rhizotomy</td>
<td>Neurology</td>
<td>O17</td>
</tr>
<tr>
<td>Amarillo C, Pawlak R, Podley A</td>
<td>Association between gender and the prescription of aspirin as a secondary prevention measure to ischemic stroke patients in Puerto Rico</td>
<td>Neurology</td>
<td>O18</td>
</tr>
<tr>
<td>Iya D, Ovakimyan V</td>
<td>Association of health insurance coverage and administration of thrombolytic therapy for acute ischemic stroke patients in Puerto Rico</td>
<td>Neurology</td>
<td>O19</td>
</tr>
<tr>
<td>Faisal Rahim, Yumi Mendez</td>
<td>Utility of ICG dye with Firefly fluorescence imaging for detection of sentinel lymph nodes in patients with endometrial or cervical cancer, and discriminative ability for detecting metastases</td>
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Capstone Presentations

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Abstracts

O1. Sab-mediated signaling regulates mitochondrial fission
Iru Paudel, Jeremy W. Chambers
Department of Cellular Biology and Pharmacology, Herbert Wertheim College of Medicine, Florida International University

Introduction and objective: Mitochondria are dynamic, highly integrated organelles that exist in a constant state of fusion and fission to maintain organelle function and cell viability; consequently, intimate crosstalk exists between mitochondria and cell. Our long term goal is to understand how signal transduction on the mitochondrial outer membrane (MOM) influences physiology. Since the MOM is the interface of mitochondria and the cell, signaling complexes at the MOM are appropriately positioned to convey messages to and from mitochondria. Moreover, MOM signaling complexes are in close proximity to proteins involved in crucial aspects of mitochondrial physiology, such as organelle dynamics and energetics. Thus, alterations in these signaling cascades may profoundly impact mitochondria and the cell.

We found that c-Jun N-terminal kinase (JNK) signaling on the MOM is mediated by the scaffold protein Sab, and over-expression of Sab resulted in fragmentation of the mitochondrial network. We hypothesize that mitochondrial JNK (proto-JNK) signaling may promote mitochondrial fission.

Methods and Results: To enhance mto-JNK signaling, we over-expressed Sab in HeLa cells and murine embryonic fibroblasts (MEFs). Increased Sab expression significantly decreased the length of mitochondria. This effect was enhanced by chemicals that promote mitochondrial fission. Affinity purification of epitope-tagged Sab expressed in MEFs revealed Sab directly interacted with fission proteins Mff, Fis1, Mf418/51, and Drp1. Inhibition of mto-JNK signaling prevented the interaction between Sab and the fission proteins and mitigated the change in mitochondrial morphology.

We propose that Sab may serve as a nucleation site for the fission machinery on the MOM. Mto-JNK signaling also played a role in preventing mitochondrial fusion (repair) by targeting Mfn2 for destruction by the proteasome. Inhibition of the JNK-Sab interaction in preventing mitochondrial fission to maintain organelle function and cell viability; consequently, integrated organelles that exist in a constant state of fusion and fission by modifying fission and fusion proteins in a Sab-dependent manner. Our studies illustrate the connectivity of cellular stress response pathways and mitochondrial dynamics.

O2. Association between Peak Troponin Levels and In-Hospital Mortality in Puerto Rican Patients with Acute Myocardial Infarction
Beatriz Collada, Roberto Martorena-Martinez, Reeni Pandya
Mentors: Juan M. Lozano MD MSc, Juan C. Zevallos MD. Florida International University College of Medicine

Introduction and Objective: Hispanics have the second highest incidence of acute myocardial infarction (AMI) in the US. There is evidence that high troponin levels are associated with longer hospital stays and a higher 30-day mortality rate in patients presenting with acute coronary syndrome. The objective of this study is to determine whether peak troponin levels are associated with in-hospital mortality in Puerto Rican patients hospitalized with AMI.

Methods: This is a secondary analysis of the Puerto Rico Cardiovascular Disease Surveillance database, constituting an observational, non-concurrent, prospective study. The population of this study consists of 2,962 patients hospitalized in 21 Puerto Rican medical centers during 2007, 2009, and 2011 with AMI.

The main independent variable was peak troponin I (cTnI) levels within 24 hours of symptom onset, and the dependent variable was in-hospital mortality. cTnI levels were dichotomized as normal or abnormal according to the values set by each of the participating hospital laboratories analyzing the blood sample. A descriptive analysis determined whether the two exposure groups were similar with respect to potential confounders (age, gender, time since symptom onset, recent surgery, hypertension, hyperlipidemia, diabetes mellitus, in-hospital complications, and smoking). A bivariate analysis of troponin levels and the above-mentioned potential confounders with in-hospital mortality was also conducted. Multivariable analysis was conducted to determine the association of peak troponin levels and the above confounders with in-hospital mortality, described using adjusted and unadjusted odds ratios.

Results: Patients with abnormal peak troponin levels were twice as likely to die in the hospital, even after adjusting for age, gender, hypertension, and the presence of in-hospital complications (atrial fibrillation, ventricular tachycardia, ventricular fibrillation, shock and/or cardiac arrest) (OR 2.1; 95% CI 1.3-3.3). Adjusted analysis further showed that age and in-hospital complications were significantly associated with in-hospital mortality (OR 1.1, 95% CI 1.1-2.8; OR 4.8, 95% CI 3.2-7.0, respectively). Hypertension was protective, resulting in a 56% decrease in odds of death (OR 0.4; 95% CI 0.3-0.6). The odds of in-hospital mortality were similar between man and women.

Conclusions-Implications: Puerto Rican patients with incident AMI and abnormal peak troponin levels have twice the odds of experiencing in-hospital death. Such patients may benefit from more timely diagnosis, aggressive monitoring and management at the time of admission. The apparent protective effect of hypertension may be explained by hypertensive patients being treated with beta-blockers prior to their MI. Further research is needed to reproduce these results in different populations.
**ORAL ABSTRACTS**

Q4. Gender differences in in-hospital mortality in Puerto Ricans with acute myocardial infarction as modified by reperfusion technique

Davek Sharma, Scott MacDougall, Uday Mahotra, Marisia Varella MD, PhD, MHS, Juan C. Zevallos MD
Florida International University Herbert Wertheim College of Medicine

Introduction and Objective: The Puerto Rican Heart Attack Study (PRHS) which was a non-survivor, observational, cross-sectional study of patients in Puerto Rico presenting with acute myocardial infarction (AMI) in the years 2007, 2009 and 2011. The database consisted of 2,965 individuals and after including those only with ICD-9 codes for acute MI, the final number of patients was 1,787 individuals, 798 (44%) were female and 994 (56%) were male. The interventions or reperfusion techniques included in the study were: primary angioplasty (Percutaneous Coronary Intervention (PCI)), fibrinolysis, and thrombolysis.

Results: Females were less likely to receive any reperfusion technique as compared to males, almost 10% more females received no intervention as compared to males who also received no treatment. Overall mortality for females and males was 10.6% and 6.9% respectively. When comparing the reperfusion technique, higher mortality was seen with fibrinolysis (14.3% deceased at time of discharge) compared to PCI/PTCA (8.1%) or thrombolysis (6.8%). About 9% of those who received no reperfusion died while in the hospital. The unadjusted odds ratio of in-hospital mortality was OR=1.6, 95% confidence interval [1.1-2.2, p<0.006]. When adjusting for confounders the odds of in-hospital mortality among females was 40% higher than males adjusted OR=1.4, 95% CI 1.0-2.1.

Conclusions-Implications: Our study shows that female gender is associated with increased mortality risk among Puerto Rican patients admitted for acute myocardial infarction and who underwent reperfusion. However, these results are of borderline statistical significance and should be interpreted with caution. Females presented with a lower prevalence of comorbidities than males and women were less likely to undergo PCI. PCI/PTCA showed no difference with regards to gender after stratifying for reperfusion technique. Clinicians who aim to address these gender differences can potentially tailor their treatment approach in the future.


Corey Saraceni, Alexander Pop, Juan Ruiz Palau M.D., Juan Zevallos M.D.
Florida International University Herbert Wertheim College of Medicine

Introduction and Objective: Hour admissions of acute myocardial infarction (AMI) can be associated with differences in quality of care, leading to increased mortality. In Puerto Rico there is limited information on the risk of increased mortality due to AMI presenting off hours to hospitals. We set out to study whether there is an association between off-hours and in-hospital mortality AMI cases admitted to the emergency rooms in Puerto Rico.

Methods: We conducted a secondary analysis of a non-concurrent cohort: The Puerto Rican Cardiovascular Electronic Database. It consists of the 21 largest hospitals in Puerto Rico spanning the years 2007, 2009, and 2011. The exposure of interest was admission time defined as off hours (7pm to 7am) and work hours (7am to 7pm) while our outcome was all cause in-hospital mortality. Potentially confounders included age, gender, comorbidities and initial treatment among others. Crude and adjusted for potential confounders (logistic regression) estimations of effect were computed. Sensitivity analysis on the potential biasing of missing data was performed.

Results: The data source consisted of records on 2965 subjects and of them 2256 had confirmed AMI’s by ICD-9 code 410.XX; 483 who were transferred from other hospitals were excluded. Of the remaining 1773, an additional 173 did not have data on time of admission, leaving only 700 subjects as our effective sample. Out of these 700, we divided them into an all cause in-hospital mortality of 3.7%. After adjusting for potential confounders we demonstrated a modest and non-statistically significant increase in the odds of dying in subjects admitted off hours: 1.2 (95%CI 0.4-3.7). The comparison between the 1733 individuals with missing admission time data and the 700 individuals with admission time data showed that subjects with missing admission time had significantly higher mortality and different distributions of age, gender and comorbidities. Sensitivity analysis demonstrated a wide variability on the estimated OR for in-hospital mortality, ranging from 0.6 (95%CI 0.3-1.4) if missing data cases were assigned to working hours to 1.8 (95%CI 0.8-3.8) if the opposite was made.

Conclusions-Implications: Our study did not demonstrate a statistically significant association between mortality and admission times in our adjusted models. Our study was severely limited by potential selection bias due to missing data and low power which prevented us from reach our primary aim. Our conclusion remains unanswered. We recommend a more complete data set and larger sample size for any further research.
O7. Household level of education as a determinant of emergency department use for primary care needs in North Miami-Dade County
Alexandra Lewis, MS4; Nicholas Miles, MS4; Marcia Varella, MD, PhD; Juan Lozano, MD, MSc.
Herbert Wertheim College of Medicine, Florida International University, Miami, Florida, USA

Introduction and Objective: Emergency departments (EDs) are frequently used inappropriately for non-emergency, primary care complaints, leading to billions of dollars in unnecessary healthcare spending. Identifying determinants of inappropriate ED use can lead to targeted intervention and ultimately reduce wasteful spending. Education has been associated with patterns of care utilization, which is believed to mechanistically relate to health literacy. With this study, we aim to determine if a household’s highest level of education is associated with the utilization of EDs as a primary care provider (PCP) in North Miami-Dade County.

Methods: Using a cross-sectional design, our study utilized an existing de-identified database created in 2010 by Florida International University Herbert Wertheim College of Medicine (FIU-HWCOM) via survey of 1845 randomly selected households in the North Miami area. Included in the survey were questions about the highest level of education achieved by the head of household as well as the household’s preferred source of care. From the initial data set, we excluded any cases who did not answer the survey question regarding level of education, which left 1639 cases for analysis. Level of education (independent variable) was stratified into four levels to evaluate for a dose-response effect with regard to ED use for primary care needs (dependent variable). Analysis for association was performed using multivariate linear regression to generate odds ratios for comparison.

Results: With regard to ED utilization for primary health care, analysis showed a dose-response effect for level of education. Those with some higher education were 1.63 times as likely to use an ED as the household’s preferred source of care. From the initial data set, we aimed to determine if a household’s highest level of education as associated with utilization of EDs as a primary care provider (PCP) in North Miami-Dade County.

Conclusion: Our analysis did not show a statistically significant association between level of education and ED use, but the demonstration of a dose-response effect lends credence to the connection between the two. We feel our data supports this association and conclude that patient education plays a role in care utilization, though a new database designed to explore this relationship further or a study with higher power may be needed to fully develop a complete understanding of the phenomenon.

O8. Association between wait time in emergency department and patients leaving against medical advice (LAMA)
Vincent Boston, Bryan Vo, Chen Ye, Juan Lozano MD MSc, Marica Varella MD MPH PhD
Herbert Wertheim College of Medicine, Florida International University, Miami, Florida, USA

Introduction and Objective: Leaving against medical advice (AMA) in EDs is associated with detrimental outcomes, including increased morbidity and mortality. Wait times lead to greater dissatisfaction with health care, a factor previously shown to affect the risk of a patient leaving against being seen by a physician. Whether wait time to see a physician in the ED is also associated with LAMA is yet to be determined.

Method: We conducted secondary analysis of a cross-sectional study, the National Hospital Ambulatory Medical Care Survey (NHAMCS). We included all patients visiting the EDs which participated in NHAMCS and then selected those age at least 18 years of age, then excluded patients who died in the ED, who did not see a physician, and those who did not have a recorded wait time. Our independent variable was whether or not the patient left AMA.

Multivariate logistic regression analysis was used to examine the independent association between wait time and LAMA. STATA 14 was used to account for the complex survey design. Significance was considered at the 0.05 alpha level.

Results: We included 20,339 patients in our analysis, in which 219 (-1%) patients left AMA. Wait time had a median of 25 minutes and interquartile range of 11 to 55 minutes. In the unadjusted analysis, the odds of leaving AMA were 20% lower in patients waiting 30-59 minutes and 20% more than patients those who waited >60 minutes (OR=0.8, 95% CI=0.5-1.3 for both). In the adjusted model, the odds of leaving AMA were 30% lower in patients waiting 30-59 minutes than those waiting less than 30 minutes (OR=0.7, 95% CI=0.4-0.9) and the odds of leaving AMA were 20% lower in those waiting 60 minutes or longer than those waiting less than 30 minutes (OR=0.8, 95% CI=0.5-1.2), again both differences found not significant.

Conclusions-Implications: Our findings suggest no evidence for an association between ED wait time and patients leaving AMA. Selection bias and residual confounding concerns apply. Future studies should investigate reasons for LAMA other than wait time as to guide interventions aimed at reducing LAMA.

O9. Association between Primary Language Spoken and Pap-Smear Screening in Little Haiti Households
Chae, Boyd, MBA; Pedro Rojas; Annie Rouza; Juan M. Acuña, MD, MSc; Grettel Castro, MPH; Melissa Ward-Peterson, MPH; Marica Varella, MD, PhD, MHS
Department of Population Medical and Health Sciences Research Florida International University Herbert Wertheim College of Medicine

Introduction and Objective: Pap smear screening has become an important preventive mean for early detection of cervical cancer, with lower rates of screening in different ethnic groups as a result of multiple factors, including language. To our knowledge, there is no research examining the association of primary language spoken and Pap smear screening in the Little Haiti population, a unique group with high prevalence of Creole speaking individuals. Our objective is to determine the association between primary language spoken and Pap smear screening in Little Haiti Households.

Methods: We did a secondary analysis of data collected from a cross sectional study done in Little Haiti in 2010 by the Herbert Wertheim College of Medicine using the Little Haiti 2010 Earthquake Impact Assessment Survey. We excluded households who had missing information on Pap smear and language, and households with no woman aged 21-65 years old. Pap smear screening within 5 years was considered adequate, and Pap smear done more than 5 years prior was inadequate. We used multivariate logistic regression analysis to evaluate the independent association between language spoken and Pap smear screening. The analyses were performed using SPSS software version 20.

Results: Out of 948 Little Haiti households who completed the survey, 602 households met our inclusion criteria. Of those, 45% spoke English, 36% spoke Creole, 16% spoke Spanish, and 2% spoke other languages. Overall, 85% of households received a pap smear within prior 5 years. A lower percentage of Creole (79.2%) received a pap smear within 5 years compared to English and Spanish speaking households (88% and 86%, respectively). In the crude analysis, Creole speakers had lower odds of receiving Pap smear (odds ratio [OR]=0.5, 95% confidence interval [CI]=0.3-0.8). However, we found no evidence of association between language spoken and receiving Pap smear screening after adjusting for being African-American, household income, <9 years of length of stay in US, education level, and health insurance status (adjusted OR=1.1, 95% CI=0.5-2.2 for creole and OR=1.2, 95% CI=0.5-2.8 for Spanish speakers compared to English Speakers households).

Conclusions-Implications: Overall, our findings suggest that differences in Pap smear screenings in the Little Haiti households are not due to language barriers, but most likely due to socio-economic factors. Further research is needed to better understand the reasons for the ethnic/racial disparities in screening practices in the population of the Little Haiti area.

O10. Race/ethnicity and the prevalence of adolescent smoking initiation
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Introduction and Objective: Cigarette smoking is the number one cause of death, disease and disability in the United States. About 68-86% of cigarette smokers initiated the behavior before 18 years of age. Promotion of smoking initiation in adolescence might reduce the prevalence of smoking during adulthood. Thus, identification of potential risks factors during adolescence is key to guide preventive interventions. Our objective is to determine if there is an association between race/ethnicity and prevalence of smoking initiation among high school students.

Methods: The study used observational data collected cross-sectionally by the Center for Disease Control (CDC’s) Youth Risk Behavior Survey (YRBS) in 2013. This is a survey of students from publicly funded secondary schools in the state of Florida, District of Columbia, and we will use all students from grades 9-12 participating at the YRBS for which data relevant for the study question was available. Students were sampled using a three-stage random cluster sampling design. Our exposure was Race/Ethnicity as self-reported by the student and categorized as “Non-Hispanic White,” “African American”, “Hispanic”, and “Other”. Our main outcome was smoking initiation, defined as positive if the student reported having smoked cigarettes on 20 or more days during the 30 days before the survey.

Results: We studied approximately 13,211 students. About 5% of the students reported smoking initiation. Compared to Non-Hispanic Whites students, African-American, Hispanic, and other race students had 30-40% lower odds of initiating smoking behavior in adolescence (adjusted OR=0.4-0.5; CI=0.2-0.8, 95% CI=0.2-0.4; and OR=0.4; 95% CI=0.2-0.7, respectively, after adjustment for gender, age, depression, suicide ideation, alcohol abuse, illicit and prescription drugs use, and asthma). Other factors independently associated with higher odds of smoking initiation were history of depression, alcohol abuse, illicit-prescription drugs use, marijuana use, and history of asthma.

Conclusion-Implications: Non-Hispanic White students were most likely to initiate smoking behavior in adolescence than students. Further research may benefit from addressing socio-economic factors that could potentially mediate the association hereby described. Additional studies are needed as to identify whether strategies targeted to Non-Hispanic white students aiming to prevent smoking initiation may have a greater impact in decreasing adolescent smoking initiation rates.

O11. Examining the Relationship between the Main Language Spoken at Home and Eating Practices in North Miami-Dade County Households
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Introduction and Objective: The dietary practices of Americans are not homogenous and often vary based upon an individual’s ethnicity.
and language. Our study examined whether the primary language spoken in households in North Miami-Dade County was associated with healthy nutrition, namely fruits and vegetables and soda consumption patterns.

Methods: We analyzed data from participants of the Herbert Wertheim College of Medicine Benchmark Survey for the NeighborhoodHELP Program. Language spoken in the household was the main exposure (English, Spanish, or Other). The outcome measures were daily fruit and vegetable consumption, namely consumption of fruits or vegetables two or more times per week and consumption of soda fewer than three times per week. Independent association of language and healthy eating habits were promoted using multivariate logistic regression for each outcome separately (fruits and vegetables consumption and soda consumption) using SPSS software.

Results: Our unadjusted results indicate that there is no association between primary language spoken at home and fruit and vegetable consumption. However, Spanish speakers and other language speakers the odds of eating fruits and vegetables were OR = 0.85, 95% CI = 0.65-1.11 and OR = 1.14, 95% CI = 0.72-1.81, respectively. When adjusted for marital status and perceived health, results remained not statistically significant (OR = 0.89, 95% CI = 0.68-1.18, and OR = 1.20 95% CI = 0.73-1.95 for Spanish and other languages as compared to English, respectively). However, primary spoken language in the household was associated with soda consumption: Non-English speakers had lower odds to consume soda compared to English speakers (OR=0.72 95% CI=0.54-0.95 for Spanish and OR= 0.66 95% CI=0.42-1.06 for other languages). After adjustment for marital status and education, the association became more pronounced (OR=0.75, 95% CI = 0.56-1.00 for Spanish speakers and OR=0.59, 95% CI= 0.36-0.97 for other language speakers).

Conclusions-Implications: Non-English speakers in North Miami-Dade possibly have better nutritional habits than English speakers (e.g., less soda consumption). Future research should explore the reason for differences in healthy eating patterns according to language spoken as to aid in the development of interventions aimed at influencing people to adopt healthy nutrition.

O12. Cost-Effectiveness Analysis on the Participation of Multidisciplinary Student Teams on Compliance to Cervical Cancer Screening Recommendations in the Green Family Foundation Neighborhood HELP Program (NiHELP)

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Introduction and Objective: The efficiency on compliance with cervical cancer screening of adding health care students to community programs has not been studied. The objective of our study is to estimate the Incremental Cost-Effectiveness Ratio (ICER) of two outreach strategies in a community health program, for promoting Pap smear testing.

Methods: Outreach team recruited all participants household. Controls households were provided health resources information and a newsletter, with periodic telephone follow up by the program staff. Experimental households also received 2 to 6 visits per year, conducted by faculty-student teams, who delivered specific health promotion activities. ICER (in 2015 U.S. dollars) was the main outcome measure. Willingness-to-pay (WTP) threshold: $600.00. Differences between total (cost) and non-cost (effect) were calculated, and the sensitivity of the ICER was analyzed using one-way and two-way sensitivity analysis. A societal perspective was taken for all costs and outcomes.

Results: At one year after baseline evaluation, 61% (95%CI 39-83) of patients in the intervention group and 32% (95%CI 19-48) in the control group received a Pap smear (p < 0.05). The ICER was $5,436.88 (below the WTP threshold). Two way deterministic sensitivity analysis on estimations of proportions of compliance with Pap smear in the two groups demonstrated that in almost 50% of plausible scenarios the intervention would not be cost-effective (above the WTP threshold).

Conclusions-Implications: The unit of intervention are households rather than individual woman, who might not be present during visits. Effective sample size is small, accounting for significant uncertainty uncovered by the sensitivity analysis. Although the base case scenario analysis showed that the students’ participation was cost-effective, the estimated ICER was sensitive to plausible variation in effectiveness, therefore a more precise (higher sample size) estimation of effectiveness is needed before this intervention can be accepted as cost-effective. In the meantime, it is reasonable to continue with the participation of NiHELP program, because of the added intangible values and benefits for participant students and for the community.

O13. The Association Between Partner Violence and Teenage Pregnancy: Effect Modification by Race

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Introduction and Objective: Teen pregnancy rates remain a significant issue within the United States. Teen pregnancy is associated with higher risk of adverse outcomes including low birth weight, small gestational age, and preterm delivery. Partner violence had been shown to affect teen pregnancy. The objective of this study is to determine whether there is an association between partner violence and teenage pregnancy, and to test if the association is modified by race.

Methods: We used data from a cross-sectional study the Youth Risk Behavior Surveillance System (YRBSS) in 2003. Only female students were included. The exposure was partner violence defined as being hit, slapped, or physically hurt on purpose by a boyfriend or girlfriend or ever being forced to have sexual intercourse anytime in the previous 12 months. The outcome was occurrence of teenage pregnancy (ever versus never). Race (white versus non-whites) was assessed as a potential effect modifier. Independent associations were assessed with Binomial logistic regression models stratified by race. Stata 12 was used to account for the complex survey design.

Results: We studied 6,898 high school females. Overall, of participants exposed to partner violence, 15% experienced teenage pregnancy, as compared to 3% in those not exposed to violence. Teenagers exposed to partner violence had higher odds of teenage pregnancy for both races. The adjusted OR for whites was 8.7 (95% CI=5.14-15.4) and for non-whites it was 4.7 (95% CI=3.3-6.8). After adjusting for age, history of drug, marijuana, or tobacco use, adolescent number of sexual partners and school performance, we found a significant greater association between violence and teenage pregnancy in whites (Adjusted OR=3.7, 95% CI=2.0-6.7; p < 0.001) when compared to non-whites (Adjusted OR=2.7, 95% CI=1.8-3.9; p < 0.001) (p-value for interaction by race = 0.039).

Conclusions-Implications: We found evidence for an association between partner violence and teenage pregnancy in both white and non-white teenagers. Screening for abuse and safety within relationships in the adolescent population is of great importance as to aid in reducing the teenage pregnancy rates in the United States.

O14. Marijuana Use and the Risk of Suicidal Ideation in American High School Students

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Introduction and Objective: According to the CDC, suicide is the third and second most common cause of death in children 10-19 and young adults 15-24. Marijuana use is frequent among adolescents, and because substance use has been identified as risk factor for suicide, the potential relationship between marijuana use and suicide should be explored. This study is designed to examine the relationship between marijuana use and suicidal idetation (SI) in adolescents.

Methods: This is a secondary analysis of a cross-sectional study from the CDC, entitled the Youth Risk Behavior Survey (YRBS). The 2013 YRBS was compiled using a three-stage, clustered sample design of over 10,000 students at 193 regular public schools, and other private highschools. Students surveyed were in the 50 U.S. states as well as the District of Columbia. We defined current marijuana users as those that smoked marijuana one or more times in the last 30 days with current (1-9 times/month), moderate (10-19 times/month), and heavy (20+ times/month). Lifetime marijuana users are defined as those who have smoked one or more times in their life, not necessarily in the last 30 days. We defined SI as considering suicide in the last year. We controlled for age, sex, race and polydrugs use, but we were not able to control for coexisting psychiatric illness. A multivariate analysis was performed to assess for any relationship between the exposure and outcome variables.

Results: Effective sample consisted of 13,491 subjects. Overall frequency of lifetime marijuana use was 43.6% and of suicidal ideation was 16.74%. Lifetime use of marijuana was associated with suicidal ideation (unadjusted OR 2.29, 95% CI=1.98-2.66), even after adjusting for multiple potential confounders (adjusted OR 1.47, 95% CI=1.21-1.77). Among current marijuana users we were significantly associated with increased odds of suicidal ideation, but after adjustment, only light and heavy use levels remained significant: ORs 1.61 (1.33-1.96) and 1.61 (1.33-1.95), respectively.

Conclusions-Implications: Our data showed a clear association between marijuana use and SI. Studies that control for psychiatric illness should be done in order to better understand the extent of this association. This study suggests the importance of screening for underlying depression and SI amongst high school students that use or have used marijuana at any frequency.

O15. The Association between Socioeconomic Status and Severity of Anxiety in Adolescents with Special Health Care Needs in the U.S

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Introduction and Objective: In the pediatric population anxiety disorders affect one in eight children and it costs one third of the total mental health bill. Conflicting data exist regarding the association between socioeconomic status and anxiety. This study aims to determine if socioeconomic status (family income of 200% or below poverty line) is associated with a higher severity of anxiety in adolescents with special health care needs ages 13-17 in the U.S.

Methods: We studied adolescents with special health care needs (including children with special health needs living in the U.S) identified in the CDC 2009-10 National Survey of Children with Special Health Care Needs (NSCHSD) and with a report of a diagnosis of anxiety made by a health care professional. The main independent variable was socioeconomic status defined as a family income either < 200% or 200%-400% of the federal poverty line. The dependent variable was severity of anxiety (categorized as severe versus mild and moderate) based on parents’ report. Independent associations were tested using multivariate logistic regression analysis. Stata 12 software was used to account for the complex survey design. Significance considered for p-values <.05 (two tailed test).
**O16. Identification Of Ampm Effectors In Pseudomonaas Aeruginosa**

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**Introduction and Objective:** One of the primary mechanisms of β-lactam resistance in *P. aeruginosa* is the expression of chromosomally encoded β-lactamases, AmpC and PlsB. The expression of these β-lactamases is regulated by a LysR type transcriptional regulator AmpR. Besides resistance, *P. aeruginosa* AmpR plays an expansive role in regulating acute and chronic infection phenotypes such as pathogenesis, efflux, sensing, and biofilm formation among others. Studies with members of Enterobacteriaceae show that the activity of AmpR is modulated in a cell-wall intermediates or muropeptides that are recycled using muropeptide biosynthesis. Our findings provide preliminary evidence to support a randomized trial aimed at providing more definite evidence regarding optimal radiation dosage that maximizes pain relief while minimizing adverse effects.

**Results:** Whole cell analysis showed a statistically significant overall decrease in the levels of total muropeptides in the mutants as compared to the wild type. In addition, loss of ampG resulted in an increase of the N-Acetyl glucosamine (NAG) 1.6-α-nacyrdamuronyl di- and tri-peptides. Induction studies of PAO1 using sub-inhibitory concentrations of cefotixin showed a decrease of the total muropeptide content. However, 1.6-α-nacyrdamuronyl pentapetptide and NAG-α-1,6-α-nacyrdamuronyl pentapetptide were detected only upon induction.

**Conclusions-Implications:** This indicates that AmpG is the permease which translocates these muropeptides into the cytoplasm for further recycling. The increase of specific muropeptides upon induction suggests that the AmpM effector may be one of these muropeptides. Identification of the AmpM effectors will increase our comprehension of the mechanisms of β-lactam resistance. Synthesis of effector analogs inhibiting AmpR may lead to impairment of initiation of infection in *P. aeruginosa* as well as decreased pathogenesis.

**O17. Association between Radiation Dosage and Pain relief in Trigeminal Neuralgia Rhizotomy**

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**Introduction and Objective:** Trigeminal neuralgia is an uncommon disorder that results in recurrent episodes of lancinating pain in the trigeminal nerve (TN) distribution. When medical treatment fails, surgical options such as CyberKnife radiosurgical rhizotomy exist. However, the optimal dose of radiation is still unknown. This study investigates the existence of an association between dosage of radiation and pain relief in patients treated via CyberKnife rhizotomy.

**Methods:** In this non-concurrent pilot cohort study, a convenience sample consisting of all trigeminal neuralgia patients treated at the CyberKnife Center of Miami from 2008 to 2015 was included. In total, 33 patients were included. Patients were evaluated for level of pain relief with respect to the dosage of radiation delivered to 5 mm of TN. Pain relief was categorized into one of four outcomes according to the Boston-Ram Relief Study scale: “Excellent,” “Moderate” considered as clinically successful.

**Results:** Median radiation dose (IQR) was found to be 52 Gy (48.8-52.5). Dosage was then dichotomized to low (less than 52 Gy) or high (at least 52 Gy). There was no significant association found between median age, gender, side of procedure, and prior surgical procedures against dosage. Pain relief outcomes were found to be associated with increased radiation dosage at both 1 month and 4-6 months follow up (p=0.010 and p=0.001 respectively). The relative risk (95% CI) of successful pain relief for high dosage against low dosage across the entire sample was 1.57 (1.05, 2.36) and 2.14 (2.14,3.38) for 1 month and 4-6 months follow up respectively. The relative risk for males was 5.38 (0.82, 35.52) for both intervals. The relative risk for females was 1.32 (0.93, 1.86) and 1.75 (1.09, 2.83) for 1 month and 4-6 months follow up respectively. Similar results were found for restricted analysis for patients with 1 year procedure. Further results using multivariate analysis and access to health care, lower socioeconomic status group was found to be associated with severity of anxiety (OR=2.36) and 2.04 (1.24,3.38) for 1 month and 4-6 months follow up respectively. Similar results were found for restricted analysis for patients with 1 year procedure. Further results using multivariate analysis and access to health care, lower socioeconomic status group was found to be associated with severity of anxiety (OR=2.36) and 2.04 (1.24,3.38) for 1 month and 4-6 months follow up respectively. Similar results were found for restricted analysis for patients with 1 year procedure.

**Conclusions-Implications:** Higher doses of radiation to the TN were associated with higher likelihood of pain relief in patients with trigeminal neuralgia treated with CyberKnife rhizotomy, at both 1 and 4-6 months follow up. Potentially, males may respond to treatment better, although, this requires further study. Our findings provide preliminary evidence to support a randomized control trial aimed at providing more definite evidence regarding optimal radiation dosage that maximizes pain relief while minimizing adverse effects.

**O18. Association Between Gender and the Prescription of Aspirin as a Secondary Prevention Measure to Ischemic Stroke Patients in Puerto Rico**

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**Introduction and Objective:** Aspirin as a secondary prevention measure to ischemic stroke (AIS) mainstay of treatment is the administration of thrombolytic therapy (TIA) plasminogen activator (tPA). In the United States access to health care, including the administration of tPA during AIS events is determined by the type of health insurance coverage. The purpose of this study is to assess the association of health insurance status (public or private) on tPA use in Puerto Ricans with AIS.

**Methods:** We conducted a nonconcurrent prospective study that compiled information from medical records of AIS cases from 2012 cases located in the Commonwealth of Puerto Rico in 2007, 2008, and 2011. Each suspicion of AIS was validated with MRI or CT scan imaging. For this report we performed a secondary analysis utilizing data of the Puerto Rico Cardiovascular Surveillance Study, which included descriptive, bivariate analysis on the identified thrombolytic therapy (tPA) and independent (insurance status) variables, and multivariate analysis. Odds ratios with a 95% CI were used to assess the extent of association.

**Results:** The mean age of 1,017 patients (52.2% females) was 71 (±13.4) years. Comorbidities included hypertension (87.2%), hypercholesterolemia (55.4%), active smoking (8.9%) and alcoholism (6.3%). The odds for receiving tPA was similar in patients with private or public health insurance coverage (OR=0.9, 95% CI=0.61-1.36;p=0.86). Approximately 5.3% of AIS patients received tPA (Men were more likely to receive tPA (6.9%) as compared to women (3.9%) (p=0.004). Thus, males were 1.7 times more likely to receive tPA as compared to females (OR=1.7, 95% CI=1.02-2.7;p=0.05).

**Conclusions-Implications:** Our findings the hypothesis of that alcoholism may impact aspirin prescription decisions, warranting further studies.

**O19. Association of Health Insurance Coverage and Administration of Thrombolytic Therapy for Acute Ischemic Stroke Patients in Puerto Rico**

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**Introduction and Objective:** Acute ischemic stroke (AIS) mainstay of treatment is the administration of thrombolytic therapy (TIA) plasminogen activator (tPA). In the United States access to health care, including the administration of tPA during AIS events is determined by the type of health insurance coverage. The purpose of this study is to assess the association of health insurance status (public or private) on tPA use in Puerto Ricans with AIS.

**Methods:** We conducted a nonconcurrent prospective study that compiled information from medical records of AIS cases from 2012 cases located in the Commonwealth of Puerto Rico in 2007, 2008, and 2011. Each suspicion of AIS was validated with MRI or CT scan imaging. For this report we performed a secondary analysis utilizing data of the Puerto Rico Cardiovascular Surveillance Study, which included descriptive, bivariate analysis on the identified thrombolytic therapy (tPA) and independent (insurance status) variables, and multivariate analysis. Odds ratios with a 95% CI were used to assess the extent of association.

**Results:** The mean age of 1,017 patients (52.2% females) was 71 (±13.4) years. Comorbidities included hypertension (87.2%), hypercholesterolemia (55.4%), active smoking (8.9%) and alcoholism (6.3%). The odds for receiving tPA was similar in patients with private or public health insurance coverage (OR=0.9, 95% CI=0.61-1.36;p=0.86). Approximately 5.3% of AIS patients received tPA (Men were more likely to receive tPA (6.9%) as compared to women (3.9%) (p=0.004). Thus, males were 1.7 times more likely to receive tPA as compared to females (OR=1.7, 95% CI=1.02-2.7;p=0.05).

**Conclusions-Implications:** In contrast to many places across the continental United States, in Puerto Rico the type of health insurance coverage (public or private) and gender are significantly associated with the administration of tPA during AIS events.
O20. Utility of ICG dye with Firefly fluorescent imaging for detection of sentinel lymph nodes in patients with endometrial or cervical cancer, and discriminative ability for detecting metastases.
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Introduction and Objective: Complete lymphadenectomy is the standard of care for endometrial and cervical cancer, but is associated with significant morbidity. Sentinel lymph node (SLN) mapping has reduced this morbidity in melanoma and breast cancer, but is yet to be validated for endometrial and cervical cancers. The objective of our study is to determine the detection rate of SLNs using indocyanine green (ICG) dye with Firefly fluorescent imaging. We also aimed to determine the sensitivity, specificity, positive and negative predictive values, and likelihood ratios of SLNs for metastatic disease.
Methods: Retrospective cohort study done using patients from the South Florida Gynecologic Oncologists private practice. Inclusion criteria were: a diagnosis of endometrial or cervical cancer or complex atypical hyperplasia, SLN biopsy using ICG dye with Firefly fluorescent imaging, and complete pelvic and/or para-aortic lymphadenectomy. 24 patients were identified who underwent SLN biopsy using ICG dye alone, and 43 patients who underwent the procedure with both ICG & Methylene blue (MB) dyes. Data on the detection of SLNs was obtained from operative reports and the status of lymph nodes for metastases was obtained from final pathology reports.
Results: Most patients in the ICG only and MB groups had a post-operative diagnosis of endometrial cancer (70.4% and 90.7%, respectively) and had stage 1 (91.7% and 78.6%, respectively), grade 1 (75% and 65.5%, respectively) tumors. The rates of combined pelvic and para-aortic lymphadenectomy were 91.7% and 67.4%, respectively, with the remaining patients having only pelvic lymphadenectomy. Per patient, bilateral detection rates (DRs) in the ICG only and ICG & MB groups were 67% (95% CI 47%-86%) and 56% (95% CI 41%-71%), respectively. In the ICG only group, SLNs had a sensitivity of 100% (95% CI 20.7%-100%), negative predictive value of 100% (95% CI 85.1%-100%), and a likelihood ratio for a negative result of zero. In the ICG & MB group, sensitivity was 0% (95% CI 0%-56.2%), NPV 92.1% (95% CI 79.2%-97.3%), and LR(-) 1.14.
Conclusions-Implications: Using ICG alone with Firefly fluorescent imaging resulted in acceptable detection rates of SLNs. When SLNs were detected in the ICG only group, the sensitivity, NPV, and LR(-) was sufficient to rule out metastatic disease in non-SLNs. Although these results are promising, confidence intervals were wide. Further studies should attempt to increase precision with larger sample sizes to confirm these results, in addition to discerning factors which can increase detection rate of SLNs (such as ICG concentration and size of lymph node biopsy).
O21. The association between pre-pregnancy depression and breastfeeding outcomes
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Introduction and Objective: Despite abundant research supporting the benefits of breastfeeding, more than 25% of women in America are not breastfeeding their children. The effects of prenatal demographic factors have been well researched, but the association between depression and breastfeeding is less understood. Postpartum depression has been shown to have a negative influence on breastfeeding outcomes, and pre-pregnancy depression could have a similar negative effect. This study was done to determine any association between pre-pregnancy depression and breastfeeding initiation and duration.
Methods: The study population was women who gave birth between 2009 and 2011 and participated in the Centers for Disease Control and Prevention’s Pregnancy Risk Assessment Monitoring System (PRAMS). Participants were living in 40 states in the US. A complex sampling design was used to select survey participants. Data was collected via mail and telephone questionnaires. 101,456 women were surveyed. 89,583 were selected for breastfeeding initiation; 1,873 women who initiated breastfeeding (women qualified if the infant was alive, singletons, and living with mother), 60,143 were selected for breastfeeding duration (women qualified if they initiated breastfeeding and if the infant was ≥3 months at survey time). The dependent variables were breastfeeding initiation and duration. The independent variable was pre-pregnancy depression. Multivariate logistic regression was used to determine independent associations between depression prior to pregnancy and the initiation and duration of breastfeeding.
Results: 82% of women without pre-pregnancy depression initiated breastfeeding, compared to 75% of women with pre-pregnancy depression (p-value <0.001). Women with pre-pregnancy depression were significantly less likely to initiate breastfeeding (unadjusted OR=0.66, CI=0.61-0.72, p<0.001; adjusted OR=0.86, 95% CI=0.78-0.94; women with pre-pregnancy depression breastfed for ≥3 months compared to 50.2% of women without pre-pregnancy depression. Women with pre-pregnancy depression were not significantly less likely to breastfeed for ≥3 months (unadjusted OR=0.74, CI=0.68-0.80, p=0.001; adjusted OR=0.92, CI=0.83-1.01, p=0.081).
Conclusions and Implications: Women who experienced pre-pregnancy depression were significantly less likely to initiate breastfeeding after adjusting for confounders. Of note, while pre-pregnancy depression was associated with breastfeeding initiation only, postpartum depression was associated with duration only. Addressing pre-pregnancy depression may directly impact rates of breastfeeding initiation, ultimately improving the health of the child, mother and overall family.
O22. Rare Case of Non-Anion Gap Metabolic Acidosis Associated with SGLT-2 Inhibitor Use
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Introduction and Objective: Sodium glucose co-transporter-2 (SGLT-2) inhibitors are a promising new class of oral hypoglycemic agents which reduce hyperglycemia by increasing urinary glucose excretion, independently of insulin secretion or action. The most common reported side effects of SGLT-2 inhibitors are hypotension, hypoglycemia, hypokalemia with concomitant use of insulin or insulin secretagogues, increase in low density lipoprotein, genital mycotic infections, urinary tract infections and anion-gap metabolic acidosis (euglycemic diabetic ketoacidosis and ketosis). We report a rare case of non-anion gap metabolic acidosis (NAGMA) in a patient taking a SGLT-2 inhibitor.
Case Report: A 64-year-old Caucasian woman with type 2 diabetes presented with an episode of syncope. Few days prior, the patient was having malaise, weakness and intermittent dizziness (described as ‘light-headedness’). Doctors had minimally resolved with use of medicine. On admission, physical examination was unremarkable with normal orthostatic vital signs. Her labs revealed serum glucose (175mg/dl), hyperkalemia (5.6mEq/L), elevated lpa (574UL), glycemia 1000mg/Dl, bicarbonate 15mEq/L. A diagnosis of NAGMA was made after getting arterial blood gas that showed a pH of 7.2 with a normal anion gap. Labs from previous admission did not show any metabolic abnormalities which helped us to rule out the possibility of renal tubular dysfunction. Review of her medications revealed the use of canagliflozin and metformin, which were both held during hospital course. She was managed on dextrose 5% normal saline, long acting basal insulin with prem Meal insulin and sliding scale. Her dizziness and weakness resolved independently of insulin secretion or action. The most common reported side effects of SGLT-2 inhibitors are hypotension, hypoglycemia, hypokalemia with concomitant use of insulin or insulin secretagogues, increase in low density lipoprotein, genital mycotic infections, urinary tract infections and anion-gap metabolic acidosis (euglycemic diabetic ketoacidosis and ketosis). We report a rare case of non-anion gap metabolic acidosis (NAGMA) in a patient taking a SGLT-2 inhibitor. The use of SGLT-2 inhibitor was stopped, metformin and blood administration (FDA) approved SGLT-2 inhibitor.
Conclusions-Implications: Using ICG alone with Firefly fluorescent imaging resulted in acceptable detection rates of SLNs. When SLNs were detected in the ICG only group, the sensitivity, NPV, and LR(-) was sufficient to rule out metastatic disease in non-SLNs. Although these results are promising, confidence intervals were wide. Further studies should attempt to increase precision with larger sample sizes to confirm these results, in addition to discerning factors which can increase detection rate of SLNs (such as ICG concentration and size of lymph node biopsy).
O23. Can Residents Be Trained and Safely Maintained?
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Introduction and Objective: Teaching hospitals and faculty need to balance the educational mission for training residents with patient safety. There is no data studying the change in trauma patient outcomes before and after implementation of a surgical residency. The objective of this study was to compare trauma center outcomes before and after the advent of a surgical training program. We predicted that patient-centric outcomes metrics would not be impacted by the integration of surgical residents into trauma patient care.
Methods: A retrospective review was performed using the Crimson Continuum of Care Dataset (CCCD) and the Trauma Injury Severity Scores (TRISS) for the year prior to implementation of a surgical residency, compared to the 6 months following initiation of the residency. Severity and risk adjusted performance measures included mortality, readmissions, complications, and length of stay. Using unpaired t-tests, statistical significance was determined.
Results: There were 1,535 admissions the year prior to starting the residency and 856 admissions for the 6 months following the implementation of the program. The demographics were similar between the two groups. There was no clinically significant difference in observed mortality after the initiation of a surgery residency, based on CCCD variables and TRISS datasets. There were also no significant differences in complications and readmission rates.
Conclusions-Implications: The implementation of a general surgery residency is an immense collaborative effort. We found that initiating a surgical training program did not impact mortality rates or complications of trauma patients. Surgical resident arrival to a busy trauma service also did not negatively impact the length of stay, complications, readmission rates or patient.
**O24.**

Perceived stigma of mental illness and utilization of mental health services in a South Florida community: Preliminary analysis

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Introduction and Objective: Mental health poses a burden as one of the most common illnesses in the population (NAMI, 2013). Access to treatment is one barrier, but attitudes towards treatment, most significantly stigma associated with mental illness, is also a barrier limiting willingness to seek treatment (Andrade et al., 2014; Clement et al., 2015). The purpose of this study is to examine and describe between the stigma of mental illness and the attitudes towards seeking professional treatment of a highly Hispanic South Florida community.

Methods: A cross-sectional study design was employed using a convenience sample. Participants completed a demographic form, the Perceived Stigma Scale (PSS), and the Attitudes towards Seeking Professional Psychological Help – Short Form (ATSPPH-SF).

Results: Preliminary analysis included a sample of 77. Demographic characteristics include: 70.1% female, 80% White, 75%, Hispanic, and 42% are 1st generation American. The PSS (possibility range of 16-64) average was 41.5+8.4 and the ATSPPH-SF (possibility range of 0-30) average was 18.3±5.2. In this preliminary sample, the correlation between PSS and ATSPPH-SF was low and not statistically significant (r=0.208, p=0.074).

Conclusions-Implications: Considering past research, we expected a positive correlation between PSS and ATSPPH-SF; however preliminary results of this study did not show significant statistical correlations. This suggests a larger sample size might be necessary to show a significant association, or that this association is not existent in this population. Depending on the final sample’s results, implications for how mental health stigma and attitudes towards seeking care could be addressed in this highly Hispanic community.

**O25.**

Giant Cystic Degeneration of a Uterine Leiomyoma in a Patient with Autosomal Dominant Polycystic Kidney Disease

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Introduction and Objective: Autosomal dominant polycystic kidney disease (ADPKD) is associated with extrarenal manifestations such as hepatic or pancreatic cysts and cerebral aneurysms. The presence of uterine cysts as an extrarenal manifestation of ADPKD is rare and has only been reported in two cases in the literature. We report a case of a patient with ADPKD and giant cystic degeneration of a uterine leiomyoma, the largest reported thus far.

Case presentation: 52-year-old female, previously diagnosed with ADPKD, presented to the emergency room with a large abdominal mass, approximately 30 weeks pregnancy size, abnormal uterine bleeding, and symptomatic anemia. On physical examination, a tense, immobile, mass was palpable abdominally extending 6 cm above the umbilicus, causing abdominal distension and pain. The patient experienced active vaginal bleeding and reported weakness and fatigue. Pelvic sonography revealed a 20.3 cm intramural uterine lesion consistent with cystically degenerated leiomyoma. Magnetic resonance imaging confirmed central cystic degeneration of a leiomyoma leading to mass effect and compression of the inferior vena cava and proximal iliac veins without thrombosis. Multiple cysts were visualized in the kidneys and the liver consistent with the patient’s diagnosis of ADPKD. The patient’s hemoglobin was 4.6 g/dL, and blood transfusions were required to treat symptomatic anemia. Heavy vaginal bleeding persisted and the patient underwent bilateral uterine artery embolization, which significantly improved the vaginal bleeding. In an effort to alleviate the patient’s abdominal distention, Computerized Tomography guided aspiration of 2.5 liters fluid from the cyst was performed, which significantly decreased uterine size and symptoms. The aspirated fluid was serous, negative for malignancy on cytology, and showed no evidence of infection. The patient was discharged in stable condition and underwent an uncomplicated total laparoscopic hysterectomy with bilateral salpingectomy as an outpatient with an uneventful recovery. Surgical pathology revealed a benign 1478-gram uterus with cystically dilated leiomyoma.

Conclusions-Implications: In this case, uterine artery embolization helped stabilize active vaginal bleeding. Though not a treatment for the active disease process, percutaneous cyst aspiration decreased the patient’s abdominal bulk symptoms by shrinking uterine size and alleviated the pressure onto her great vessels. This stepwise approach permitted outpatient surgery in a minimally invasive fashion as opposed to emergency surgery at time of admission in the face of heavy bleeding with multiple transfusions and requiring laparotomy. Although a rare entity, this case report raises awareness of uterine cysts being a possible extrarenal manifestation in ADPKD patients.

**O26.**

Exclusive breastfeeding in mothers who delivered vaginally versus cesarean section: A retrospective exploratory comparative study

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Introduction and Objective: The rate of breastfeeding remains fairly low in the United States whereas the rate of cesarean deliveries is increasing. Literature reveals an apparent direct negative effect on breastfeeding initiation for mothers who undergo cesarean delivery compared to those who delivered vaginally. Healthy People 2020 has identified targets to increase the proportion of infants who are breastfed. Additionally, as of January 2016, The Joint Commission expanded the threshold for exclusive breast milk feeding in the core measure set for perinatal care, which will impact more than 80% of accredited hospitals with birthing units. Therefore the purpose of this study was to explore, describe, and assess for relationships between maternal factors, neonatal factors, and breastfeeding status at delivery and post delivery follow-up.

Methods: Retrospective data was collected from medical charts of women who delivered vaginally versus cesarean (n=187) between October 1, 2011 and September 30, 2014. Random chart selection was conducted. Subgroups were differentiated, and breastfeeding intention at delivery and status at post-partum follow up were documented. Comparisons were analyzed with chi-square calculations.

Results: There was no significant association between parity and delivery method (n=197, p=0.11). The primiparous-vaginal subgroup expressed the highest intent to exclusively breastfeeding (53.3%), whereas, multiparous vaginal subgroup expressed the highest intent for exclusive formula feeding (71.8%) (p=0.001). Primiparous-cesarean mothers maintained exclusive breastfeeding at the lowest proportion (29.0%) at post delivery follow up. At follow up, the multiparous-cesarean mothers, who on the whole had the highest professed intention for breast and formula, yielded an increased rate of exclusive breastfeeding (45%), and the lowest proportion of formula feeding (3.5%) (p=0.030). Furthermore, primiparous-cesarean mothers had the lowest success rate in breastfeeding exclusively at follow-up with only 50% of those who intended to breastfeed only were doing so at the first follow-up visit. The highest conversion from intention to use both breastfeeding and formula to formula only (33.3%) was seen in the primiparous mothers with vaginal delivery. The highest conversion from intention to use both breastfeeding and formula to breastfeeding only (35.9%) was seen in the multiparous-cesarean mothers. The other groups showing a conversion rate of less than 29%.

Conclusion-Implications: Cesarean section has a negative impact on breastfeeding initiation in mothers who delivered by cesarean compared to those who delivered vaginally. Healthy People 2020 has identified targets to increase the proportion of infants who are breastfed. Additionally, as of January 2016, The Joint Commission expanded the threshold for exclusive breast milk feeding in the core measure set for perinatal care, which will impact more than 80% of accredited hospitals with birthing units. Therefore the purpose of this study was to explore, describe, and assess for relationships between maternal factors, neonatal factors, and breastfeeding status at delivery and post delivery follow-up. 

**O27.**

A Multivariate Approach to Treat a Large Aortic Free Floating Thrombus

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Introduction and objective: Free floating thrombus (FFT) of the aorta is a rare source of embolism. Treatment options include anticoagulation in high risk surgical patients, conventional surgical treatment or minimally invasive endovascular intervention. We present a rare case of a renal infarction secondary to a 6 cm FFT treated successfully with combined minimally invasive endovascular intervention with stent grafting and anticoagulation.

Case presentation: A 48 year old female smoker with a history of asthma, presented to the ER complaining of right flank pain, nausea and vomiting. Her medical history was remarkable for right costovertebral tenderness. Laboratory showed a leukocytosis of 18.5 x 10^3/mCL with a left shift, CRP 7.15 mg/dL, and LDH 576 U/L. CT abdomen/pelvis with contrast showed two areas of geographically delineated hypo perfusion in the upper and lower pole of the kidney extending to the cortical surface. Chest and abdomen CTA showed intraluminal cylindrical filling defect in the descending thoracic aorta of 6 cm, diameter of 8 mm representing a thrombus. TEE showed a freely moving mass, pedunculated and attached to the descending thoracic aorta, distal to the left subclavian artery with moderate plaque formation. Patient was started on full anticoagulation and CT scan at 1 week showed no reduction in thrombus size. Eventually, the patient was taken to the OR for an endovascular stent graft. CT scan post-procedure showed no evidence of the thrombus and the patient was discharged on warfarin with a target INR of 2-3.

Conclusion-Implications: There are currently no guidelines for the management of FFT. Options include anticoagulation alone, open surgery, endovascular intervention or a combination of these modalities. Choosing one modality over the other should be individualized based on the patient’s co-morbidities, age, recurrence, local malignancy, thrombus size and morphology, current symptoms and risk for catastrophic thromboembolism. There have been reported cases where mortality with anticoagulation alone has reached 50%. Stent Grafting has been recently suggested as an alternative to open surgery for the management of FFT with high rates of success and low rate of complications. Recurrence rates of 10% to 25% have been reported therefore lifelong anticoagulation is recommended following open surgery. The incidence of thromboembolism after endovascular management has not been fully reported. It would be beneficial to obtain more data regarding the incidence of new thromboembolic events after an endovascular approach. In our case we combined endovascular stent grafting and anticoagulation and no new embolic events were found.
Adaptive control of lung volume for respiratory pacing in the rodent model
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Introduction and Objective: High-cervical spinal cord injury can lead to respiratory deficiency due to paralysis of inspiratory muscles. Functional electrical stimulation (FES) has been applied to restore ventilatory function in individuals with respiratory deficiency as an alternative to mechanical ventilation. Control paradigms for FES are often based on open-loop controllers that depend on careful calibration and setup by a clinician and technician but are unable to adapt to a patient’s respiratory demand and changes in electrode properties. Our goal is to develop a neuromorphic controller that can adapt to the respiratory needs of the user based on physiological feedback values.

Methods: A software-based adaptive controller was implemented to modulate the amplitude of stimulation pulses delivered to the diaphragm based on lung volume feedback in an uninjured, anesthetized rat model. Stimulation pulse width (200 µs) and frequency (75 Hz) were held constant. Lung volume was derived through real-time integration of the flow signal from a pneumotachometer incorporated into the breathing circuit. Native breath volume was used to determine a baseline breath volume target. To assess the ability of the system to adjust ventilation in a controlled manner, the targeted lung volume trajectory was scaled to 120% of the baseline breath volume to mimic the response to controlled hyperventilation. To adapt to a patient’s respiratory demand and changes in electrode properties, the controller was able to account for muscle fatigue by steadily increasing charge delivered at each cycle.

Results: The controller achieved an adequate and steady breathing pattern within 25 - 30 cycles after initiating stimulation at baseline target. After increasing the target volume to 120% of baseline, the controller adapted to the change in 10 cycles. After reducing the desired volume back to baseline, the controller achieved adaptation in 15 cycles.

Conclusions-Implications: These results demonstrate the ability of the adaptive controller to achieve the desired target by adapting to a change in the desired ventilatory pattern. The controller was also able to account for muscle fatigue by steadily increasing charge delivered at each cycle.

Humanized relaxin receptor mouse model for testing small molecule modulators.
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Introduction and Objective: Relaxin peptide hormone (RLN) was initially discovered through its effects on parturition. Later, new functions of RLN were recognized including vasodilatory, angiogenic, and antifibrotic tissue remodeling properties. The therapeutic potentials of RLN were tested in various animal models of organ fibrosis, cardiovascular deficiency, and reproductive abnormalities. Recent data from clinical trials of relaxin treatment in acute heart failure indicated a significant decrease in patient lethality. However, the short half-life in vivo, possible immune response, and a high cost of recombinant peptide production complicate the chronic use of RLN. Our laboratory has identified highly selective small molecule agonists of human relaxin receptor, RXFP1. High stability, comparable activity, and low toxicity make the RXFP1 agonist a promising pharmacologic agent. This agonist failed to activate rodent RXFP1 receptors due to the divergence of the amino acid sequence in the aforesaid binding site. This hampers the testing of RXFP1 agonists in vivo. To overcome this problem we have produced humanized RXFP1 mice.

Methods and Results: Using gene targeting of ES cells, we inserted cDNA of the human gene (hRXFP1) with the internal ribosomal entry site into one of the mouse RXFP1 (mRXFP1) introns. The resulting knock-in allele of hRXFP1 is driven by the endogenous mouse promoter whereas the mouse gene expression is disrupted. Chimeric males containing recombinant ES clones were used to establish germ-line transmission of the mutant allele. Expected ratio of mutant progeny was shown in various crosses. Using quantitative RT-PCR and primers specific for hRXFP1 and mRXFP1 we have shown a similar pattern of expression of both alleles in different organs of hRXFP1/mRXFP1 animals. To generate the mouse line homozygous for hRXFP1, we first produced diheterozygous mice with hRXFP1 and the deleted allele of this gene and intercrossed them to produce hRXFP1/hRXFP1 homozygotes. Both diheterozygotes and fully humanized females showed normal fertility. The pubic ligament of pregnant females was measured at day 18.5 of pregnancy and was fully dilated. Analysis of mammary niple differentiation and the reproductive tract suggested full complementation of the disrupted mouse gene by the human homologue.

Conclusions-Implications: Taken together, these data indicate that our humanized mice express the fully functional human relaxin receptor gene thus allowing testing of small molecule agonists of RXFP1 in vivo.

Association between Type-2 Diabetes and In-Hospital Mortality in Puerto Rican Patients Hospitalized with Decompensated Heart Failure
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Introduction and Objective: Heart failure is the number one cause of death in the United States. Type-2 diabetes mellitus has been...
POSTER ABSTRACTS

Puerto Rican patients with HFPEF.

Introduction and Objective:

POSTER ABSTRACTS

Puerto Rican patients with HFPEF.

Methods:

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Puerto Rican patients with HFPEF.

Methods: This is a secondary data analysis of the Puerto Rican Heart Failure Study, which has a non-concurrent prospective design. We included patients from studies years 2007, 2009 and 2011 with heart failure and preserved ejection fraction (≥ 45%). We assessed the association between gender and mortality. Chi-squared analysis was used to assess mortality between gender and in-hospital mortality among patients with decompensated heart failure. The dependent variable was in-hospital mortality. Independent associations were tested using multivariable logistic regression using SPSS software. Results: We identified a total of 1,115 patients with heart failure and excluded patients with missing ejection fraction data (n = 663, 36.9%). A total of 1,115 patients recorded both gender and mortality in our sample of patients with heart failure, women were more likely to be older and arrive to the hospital in an ambulance, white chronic renal failure was more prevalent among men. From our analysis, gender did not have a statistically significant association with mortality (OR 0.6, 95% CI 0.3 - 1.4). When the model was adjusted for confounding variables, including age, mode of transportation to the hospital, hypertension, and chronic renal failure, women with HFPEF had similar odds of dying from any cause compared with men with HFPEF (OR = 0.7, 95% CI 0.3 - 1.8).

Conclusions-Implications: In this sample of Puerto Rican patients with HFPEF, no significant association was found between gender and in-hospital mortality. Future steps include standardization of data collection to allow for more robust modeling of potential risk factors.

P5: Serum Calcium Levels on Admission and In-Hospital Mortality After Incidental Acute Myocardial Infarction

Ayes A-Bahab, Harms Frimpom, and Omar Shabah

Introduction and Objective: Calcium plays an important role in human physiology as it is involved in cardiac contraction, enzymatic activity, and electrophysiological characteristics of the heart. Previous studies have reported that high serum calcium levels are an independent predictor for the incidence of coronary artery disease including acute myocardial infarction (AMI). It is also tightly linked to various cardiovascular risk factors such as hypertension, hyperlipidemia, and hyperglycemia. There is a controversy regarding admission serum calcium levels and in-hospital mortality in patients with AMI who have not been well studied. The objective of our study is to examine the association between serum calcium levels and in-hospital mortality in Hispanic patients suffering from incidental AMI.

Methods: We conducted a secondary analysis of the Puerto Rico Cardiovascular Disease Surveillance Study (PRCVDS) which has a non-concurrent cohort design. The database included data of Hispanic men and women residing in Puerto Rico who were hospitalized for AMI in 21 medical centers with acute care facilities in 2007, 2009, and 2011. Our initial population was a sample of 2965 patients who had an AMI. Our inclusion criteria included patients older than 18 years with recorded serum calcium levels on admission. Calcium levels were categorized using a cutoff value of >10.2 mg/dL as “High” versus ≤10.2 mg/dL as “Normal.” We conducted a multivariable analysis to determine the association between serum calcium levels on admission and in-hospital mortality after adjusting for 8 potential confounders: gender, age, hyperlipidemia, hypertension, diabetes, smoking history, renal disease, and age-adjusted body mass index. Results: A total of 2031 patients comprised our study population. The patients were 55% men and 81% were older than 55 years. No potential confounding variables were identified based on the analysis of 8 patient characteristics. According to multivariable logistic regression analysis, higher serum calcium levels were not associated with in-hospital mortality (OR 0.7, 95% CI 0.2-2.2, p = 0.5). Incidentally, the results from our analysis also show that of the patients that died, 8.6% were women while only 5.6% were men (p = 0.006).

Conclusions-Implications: High serum calcium was not significantly associated with in-hospital mortality in Puerto Rican patients admitted with incidental AMI. Our study was conducted in Puerto Rico, and therefore the generalizability of these findings may not apply to other Hispanic populations. Additionally, our study examined serum calcium levels as a categorical variable. Future research will be aimed at stratifying various levels of high calcium into more specific ranges to determine if a graded response exists.

P6: Differences in Symptomatology between Puerto Rican Men and Women Presenting with Acute Myocardial Infarction

Rafael Paaz, Abraham Alfonso Remigio, Robin Joseph, Juan C. Zevallos MD, M.D. and Juan Gabriel Ruiz Pelaez MD, Florida International University- Herbert Wertheim College of Medicine

Introduction and Objective: Heart disease, including Acute Myocardial Infarction, is the leading cause of death in both men and women in the United States. One in four deaths in the United States every year can be attributed to heart disease; every year, 720,000 Americans have an AMI. The prognosis for an individual presenting with an AMI is dependent on timely diagnosis and prompt treatment. There is a growing body of evidence that suggests that men and women vary in their clinical presentations of an acute myocardial infarction. Our objective is to determine if Puerto Rican men and women differ in symptomatology when presenting with an AMI.

Methods: This is a secondary analysis of a non-concurrent prospective study of 2892 Puerto Rican patients hospitalized with an AMI during 2007, 2009, and 2011. The Puerto Rico Heart Attack Surveillance System (PRHASS) is an ongoing dataset that consists of patients treated for AMI and includes 700-900 variables. The dataset was narrowed to 2962 patients who fit the 410-414 codes of the International Classification of Disease (ICD) 9th version consistent with the possible presence of AMI; the information contained in the medical records was reviewed and validated by trained nurses and physicians. Patients’ reported symptoms were analyzed via SPSS 20 to examine differences between genders. We conducted a univariate, bi-variable, adjusted and unadjusted analysis.

Results: Compared to men, women were significantly more likely to present with jaw pain [OR 1.86 (95% CI 1.12-2.09), nausea [OR 1.45 (95% CI 1.10-1.74)], vomiting [OR 0.73 (95% CI 1.66-1.70), and fatigue [OR 1.38 (95% CI 1.12-1.70). On the other hand, men were significantly more likely to report left arm pain [OR 0.67 (95% CI 0.53-0.83)], right arm pain [OR 0.58 (95% CI 0.36-0.83)], left shoulder pain [OR 0.68 (95% CI 0.48-0.97), chest pain [OR 0.67 (95% CI 0.55-0.81)], and numbness in arm/hand [OR 0.43 (95% CI 0.20-0.92).

Conclusions-Implications: Findings from this study suggest that Puerto Rican men and women experience different symptoms when presenting with an AMI. Puerto Rican women are more likely to experience nonspecific symptoms such as nausea, vomiting, and fatigue while men are more likely to experience left/right arm pain, chest pain, and left shoulder pain. It is critical to recognize such differences as prompt diagnosis and treatment are essential to ensure a more favorable prognosis.

P7: The effect of beta-blockers on in-hospital mortality in patients with acute myocardial infarction

Cecily Kopuphasa, Ryan Shaw, Joseph Violais, Juan Lozano MD, & Juan Zevallos MD, Florida International University Herbert Wertheim College of Medicine

Introduction and Objective: Most of the studies on the efficacy of beta-blocker therapy in the post-acute myocardial infarction (AMI) setting were performed before PCI techniques were improved and the use of secondary prevention medications. Compared to other populations, minimal research has been done to examine the efficacy of beta-blockers among Hispanics. The study objective is to determine whether there is an association between beta-blocker use and in-hospital mortality in Puerto Rican patients hospitalized with an AMI.

Methods: We conducted a secondary analysis of the Puerto Rico Cardiovascular Surveillance Study (PRCVS), which has a non-concurrent prospective study design. The PRCVS database is comprised of more than 65,000 cases who were hospitalized for a possible AMI at any one of the twenty one academic or non-teaching medical centers on the Island during the years of 2007, 2009, and 2011. Our research focused on the administration of beta-blockers within the first 24 hours post-AMI as the main independent variable. The outcome measured was in-hospital mortality. Data analysis was performed using chi square testing, bivariate and logistic multivariate modeling using SPSS v20.

Results: The study findings suggest Puerto Rican patients who received beta-blockers within the first 24 hours of an AMI are less likely to die in the hospital when compared to AMI patients who did not receive beta-blocker therapy. The odds ratio was calculated at 0.4. These findings were significant (p<0.05). Our findings support the need for further research to examine the efficacy of beta-blockers among Hispanic patients with AMI.
Rico with diastolic congestive heart failure we found no evidence of:
Among patients hospitalized in Puerto hospital mortality (OR=0.3, 95% CI=0.1-0.8, p=0.016).

hypertension at adjustments for demographic and clinical confounders we found lower odds to experience in-hospital mortality as compared to females). In the unadjusted (crude) analysis, females had 30% lower odds to experience in-hospital mortality as compared to individuals with 95% confidence intervals of 0.20-0.50 and 0.20-0.60 before and after adjusting for confounders, respectively, with p-values of <0.001.

Conclusions-Implications: The findings suggest that after controlling for additional medical therapies, including medications and secondary prevention practices (i.e. use of invasive coronary procedures) beta-blockers in the post-AMI setting are associated with a decreased in-hospital mortality in the Puerto Rican population. Thus, beta-blockers are part of the standard of care in patients with AMI. Although it has been postulated that the efficacy of beta-blockers has been diluted in an age where PCI techniques and cardiac medications have improved, the study findings indicate that beta-blocker therapy is an indispensable treatment in patients who recently suffered an AMI.


Introduction-Objectives: Forty to seventy percent of patients with heart failure have diastolic heart failure. Information is scarce regarding gender-specific in-hospital mortality for diastolic heart failure, especially in the Puerto Rican population.

Study aim: To assess whether there are gender differences in in-hospital mortality among Hispanic patients with decompensated heart failure with preserved ejection fraction.

Methods: We performed a secondary data analysis from the 2007, 2009, and 2011 Puerto Rican Cardiovascular Disease Surveillance electronic database, an observational, non-concurrent, prospective study. The data came specifically from 21 medical centers located in Puerto Rico. There are three separate datasets containing 700-900 variables on patients with myocardial infarction, congestive heart failure or stroke, and data is included on demographics, diagnoses, clinical management, and outcomes. A total of 2191 Puerto Rican patient records were included in this study, 41.5% of which used EMS services to access hospital care. Patients were separated into 2 groups: those who arrived by ambulance/helicopter versus. alternative transport in Puerto Rican patients hospitalized with an initial AMI.

Methods: We performed a secondary data analysis from the 2007, 2009, and 2011 Puerto Rican Cardiovascular Disease Surveillance electronic database, an observational, non-concurrent, prospective study. The data came specifically from 21 medical centers located in Puerto Rico. There are three separate datasets containing 700-900 variables on patients with myocardial infarction, congestive heart failure or stroke, and data is included on demographics, diagnoses, clinical management, and outcomes. A total of 2191 Puerto Rican patient records were included in this study, 41.5% of which used EMS services to access hospital care. Patients were separated into 2 groups: those who arrived by ambulance/helicopter versus. alternative transport in Puerto Rican patients hospitalized with an initial AMI.

Results: Out of 1818 HF patients, 492 fulfilled our study criteria. Overall 28.7% died before discharge (6.9% of males, 4.7% of females). In the unadjusted (crude) analysis, females had 30% lower odds to experience in-hospital mortality as compared to males but the findings were not significant (95% CI=0.3-1.4). After adjustments for demographic and clinical confounders we found no difference in in-hospital mortality between genders (OR for females=0.5, 95% CI=0.2-1.3, p-value=0.19). Hypertension at admission was independently associated with lower odds of in-hospital mortality (OR=0.3, 95% CI=0.1-0.8, p=0.018).

Conclusions-Implications: Among patients hospitalized in Puerto Rico with diastolic congestive heart failure we found no evidence of an association between gender and in-hospital mortality.

P9. Impact of mode of transportation on in-hospital mortality in Puerto Rican patients hospitalized with an acute myocardial infarction

Hannah Gordon M.P.H., Shana Sandford, Juan Carlos Zelavlos M.D., Marisa Velaza M.D., Ph.D., M.H.S. Gregorio Castro, M.P.H., Pura Rodriguez, M.P.H., Melissa Ward-Peterson, M.P.H.
Florida International University Herbert Wertheim College of Medicine

Introduction and Objective: Although studies exist describing the correlation between treatment time and AMI patient outcomes, there has been little information collected on the impact of arrival to hospitals via ambulance and its association with mortality in AMI patients. This is especially true for Hispanic patients hospitalized with an AMI. As a result, the purpose of this study is to investigate if there is a difference on in-hospital mortality of patients who arrived by ambulance/helicopter vs. alternative transport in Puerto Rican patients hospitalized with an initial AMI.

Methods: We performed a secondary data analysis from the 2007, 2009, and 2011 Puerto Rican Cardiovascular Disease Surveillance electronic dataset, an observational, non-concurrent, prospective study. The data came specifically from 21 medical centers located in Puerto Rico. There are three separate datasets containing 700-900 variables on patients with myocardial infarction, congestive heart failure or stroke, and data is included on demographics, diagnoses, clinical management, and outcomes. A total of 2191 Puerto Rican patient records were included in this study, 41.5% of which used EMS services to access hospital care. Patients were separated into 2 groups: those who arrived by ambulance/helicopter versus. alternative transport in Puerto Rican patients hospitalized with an initial AMI.

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Results: Out of 1818 HF patients, 492 fulfilled our study criteria. Overall 28.7% died before discharge (6.9% of males, 4.7% of females). In the unadjusted (crude) analysis, females had 30% lower odds to experience in-hospital mortality as compared to males but the findings were not significant (95% CI=0.3-1.4). After adjustments for demographic and clinical confounders we found no difference in in-hospital mortality between genders (OR for females=0.5, 95% CI=0.2-1.3, p-value=0.19). Hypertension at admission was independently associated with lower odds of in-hospital mortality (OR=0.3, 95% CI=0.1-0.8, p=0.018).

Conclusions-Implications: Among patients hospitalized in Puerto Rico with diastolic congestive heart failure we found no evidence of an association between gender and in-hospital mortality.

P10. In-hospital mortality difference between academic and non-academic hospitals in Hispanics with acute myocardial infarction

daly-lindo terence, levens benjamin, O’laughlin Michael, lozano Juan Manuel, Zelavlos Juan Carlos, Herbert Wertheim College of Medicine, Florida International University

Introduction and Objective: In-hospital mortality data in patients hospitalized with acute myocardial infarction (AMI) in academic vs. non-academic medical centers is despair. There is extremely limited information in minority populations, especially Hispanics, describing the clinical epidemiology of acute coronary disease. The purpose of this study is to assess the difference on AMI in-hospital mortality between academic and non-academic hospitals in a mostly Hispanic population.

Methods: We conducted a secondary analysis of the Puerto Rico Surveillance Study, which has a non-concurrent cohort design. Trained study personnel reviewed the medical records of patients hospitalized with possible AMI in 2007, 2009, and 2011 in twenty medical centers of Puerto Rico, and independently validated each case according to the World Health Organization criteria. Hospitals holding academic affiliations with any of the four medical schools located in Puerto Rico were defined as academic. Age, gender, presence of risk factors, and delay time from onset of symptoms to admission (<60 minutes; 60–240 minutes; and >240 minutes) were included in a multivariable analysis as explanatory variables impacting in-hospital mortality.

Results: Among the 3,189 (56% men, mean age 67 years) patients hospitalized with AMI, the overall in-hospital mortality rate was 5.4%, and no statistically significant difference was found on in-hospital mortality likelihood between patients hospitalized in academic vs. non-academic medical centers (OR = 0.9, 95% CI 0.7–1.2), after controlling for potential confounders. In addition, the adjusted model suggests that, as compared to patients with delay time of <60 minutes, patients admitted >240 minutes were 4 times more likely to die (OR=4.0, 95%CI= 1.9–8.3), and those patients admitted between 60 and 240 minutes were 3.8 times more likely to die (OR=3.8, 95%CI = 1.8–8.2).

Conclusions-Implications: In-hospital mortality rates of Puerto Rican patients hospitalized with validated AMI do not show a statistically significant difference between academic or non-academic hospitals. Increased delay time upsurge in-hospital mortality.

P11. Diffuse Dermal Angiomatosis: A Case Report and Review of the Literature

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Introduction and Objective: Diffuse dermal angiomatosis (DDA) is a rare acquired cutaneous, reactive, vascular disorder, DDA is benign and is classified in the group of cutaneous reactive angiomas (CRA). CRA disorders are benign vascular disorders marked by intravascular and extravascular hyperplasia of endothelial cells that may or may not include pericytes. DDA was originally described as a variant of cutaneous reactive angiomatosis (CRAHE), which is characterized by hyperplasia of endothelial dermal cells and intravascular proliferation. Unlike CRAE, DDA primarily affects the reticular dermis with minimal intravascular involvement. DDA has more recently been identified as a distinct disorder on the spectrum of CRA rather than as a variant of CRAE. Vascular proliferation in DDA is hypothesized to stem from ischemia or inflammation. Peripheral vascular abnormalities have been associated with DDA.

The epidemiology of DDA is not well known due to the rarity of the disease, with only 30 cases reported on PubMed. However, of those 30 cases, only adults were affected. The majority of reported cases were middle-aged females. This article will focus on DDA and review the literature of previous case reports.

Case Presentation: A 43-year-old Haitian male presented to the clinic for a lesion on his left buttock. The lesion developed over a 6 year period. Initially he had presented to another dermatology clinic and a biopsy was performed which revealed a diagnosis of hemangiomata. The patient now presented to our clinic as the lesion had been enlarging over the last several months. Upon examination, the patient had a large indurated hyperpigmented plaque covering his left buttock. Upon review of systems, the patient would describe occasional burning in the area throughout the year.

Conclusions-Implications: DDA is associated with medical conditions predisposing an individual to ischemia. Although rare, DDA can present as painful and visibly disturbing lesions that can affect the daily lives of afflicted patients. For all DDA patients, strict control of comorbidities essential. Smoking cessation should be incorporated into the treatment plan. When DDA affects the breast, it appears that isoretinoin provides the best relief. Otherwise, treatment of the underlying cause, revascularization, or steroids seem to be the best treatment options at this time.

DESCRIPTION POSTER ABSTRACTS
All twenty nails are not always affected, the term trachyonychia...
in the US, especially among Haitian immigrants who have some of the lowest cancer screening rates in the country. However, there is little research on whether having a particular source of continuous care affects the utilization of cancer screenings. This study aims to address this gap, focusing on the Haitian population, in North Miami-Dade County.

Methods: The study was a secondary data analysis of a 2009 survey of Miami-Dade County’s Haitian population. We investigated the insurance status of Haitians who sought cervical cancer, mammograms for breast cancer, and colonoscopy, sigmoidoscopy and fecal occult blood test for colon cancer per USPSTF guidelines. A univariate and multivariate analysis was conducted with SPSS.

Results: For colon cancer screening, there were 305 eligible households. Those who were uninsured or had insurance but without continuous care were less likely to be compliant (OR=0.3, p=0.004; OR=0.4, p=0.001). However, upon adjusting neither was found to be significant. Regarding mammograms, there were 237 households. Those who reported not having insurance, or insurance without continuous care were less likely to be compliant (OR=0.3, p=0.002; OR=0.2, p=0.01). Both remained significant (OR=0.3, p=0.01; OR=0.4, p=0.039) respectively after adjusting. In the PAP smear arm, there were 348 households. Having continuous care and insurance were again associated with compliance (OR=0.9, p=0.002; OR=0.8, p=0.031). Upon adjustment, only having insurance was found to be statistically significant (OR=0.3, p=0.01)

Conclusions-Implications: Across each screening method there seems to be a significant association between compliance and a lack of continuous care and a lack of insurance. Additionally, there is a significant association between continuous care and mammogram compliance. Because this was a secondary data analysis, there were limitations in limited power and possible recall bias. This prompts the need for further exploration of the role of these factors, along with income level and provider satisfaction, in contributing to cancer screening utilization among the Haitian Population.

P17. The Effect of Insurance Status and Ethnicity on Delays in Seeking Medical Care in North Miami
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Introduction and Objective: Health care for the uninsured has been a topic of much deliberation. The uninsured have greater difficulty accessing medical care and tend to have worse health outcomes than their insured counterparts. Despite these disparities are even more penetrating among racial and ethnic minorities, which comprise a large portion of the population of Miami-Dade. For this purpose, we analyzed the association between insurance status and delays in seeking medical treatment among minority populations in Northeast Miami.

Methods: This cross-sectional study utilized information gained from the Little Haiti Community Benchmark Survey administered during October 2009 and April 2010, which included 948 households selected at random to represent the northeast area of Miami-Dade County. Those households which did not seek any form of medical care within 12 months of the survey were excluded from the analysis due to the lack of the variable of interest. Odds ratios were determined through bivariate and multivariate analysis to determine the likelihood that the lack of insurance among different ethnic groups in Northeast Miami-Dade was associated with the delay in seeking medical care among household members.

Results: 823 households were included in this study. The minority population of North Miami-Dade represented in our study was comprised of 27% African Americans, 21% Hispanics and respondents who self-identified as Haitian or Other (44%), with only a small percentage identifying as non-Hispanic White. Of the participants, more than half primarily spoke a language other than English and 15% had achieved an education level of less than high school. A substantial percentage of respondents were unemployed at the time of the survey (22%) and 53% were below the federal poverty limit with a reported income of less than $10,000 per year. Although a direct association between ethnicity and delay of care was not found in this study, lack of insurance was independently associated with delaying medical care, with the uninsured found to be 2.8 (95% CI 1.7-4.5) times more likely to delay care than insured individuals.

Conclusions-Implications: Disparities in access to health care resulting in delays which may result in poor health outcomes are evident in our study of the households of North Miami-Dade. Our study shows a direct and independent relationship between insurance status and delays in seeking medical care.

P18. Association between prior training in LGBTQ patient care and medical students’ comfort addressing health concerns in LGBTQ patients
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Introduction and Objective: LGBTQ individuals represent a unique population, with particular health concerns such as higher rates of tobacco, alcohol and drug use, STIs, obesity, and depression and suicide. There is growing interest among medical colleges in teaching LGBTQ health competencies to medical students. However, limited data exists to adequately assess the educational needs of students regarding LGBTQ health, and few curricular interventions have been introduced into pre-clinical or clinical coursework. Our research aimed to investigate if there is an association between formal clinical experience with LGBTQ health competencies and comfort with LGBTQ patients and health concerns among medical students at the Herbert Wertheim College of Medicine.

Methods: We analyzed data collected through a cross-sectional, internet-based survey from 222 HWCOM medical students, collected in fall 2014. After recoding the survey responses to the independent variables from a Likert Scale to binary response, we performed a logistic regression analysis to determine the relationship between the independent and dependent variables. To adjust for possible confounders, we used logistic regression.

Results: Exposure to formal training was not found to significantly impact comfort level managing LGBTQ patients (adjusted OR 0.9, 95% CI 0.5-1.9, p value 0.328). For the second aim, multivariate analysis was conducted with SPSS. Both remained significant (OR=0.3, p=0.002; OR=0.4, p=0.039, p<.001). Hispanic students had significantly higher odds of feeling comfortable compared to non-Hispanic students (adjusted OR 2.4, 95% CI 1.1-5.3, p value 0.026).

Conclusions-Implications: We were unable to reject our null hypothesis, finding previous LGBTQ training experiences not to be significantly associated with higher levels of comfort addressing these patients. Higher frequency of exposure and Hispanic ethnicity were associated with greater comfort levels. Greater efforts need to be identify the reasons for lack of comfort and steps taken to formalize and improve the training for medical students in managing this patient population.

P19. Evaluating the Need for Implementation of a Peer Mentoring Network at Florida International University Herbert Wertheim College of Medicine and its Success after 4.5 Years
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Introduction and Objective: In medical school, high work demands, loss of time for leisure activities, tensions in personal relationships, and precarious confrontation of death contribute to burnout, depression, substance abuse, suicide, and professional misconduct. Mentoring programs and identification of peer role models improve mental well-being and combat adverse consequences. In new medical schools there are fewer peers and resources to provide support and guidance to new students. The Peer Mentoring Network (PMN) was implemented at COM-FIU in August 2013. The objective of our study is to evaluate the student’s perceptions on the need for the PMN and evaluate its success at the end of one year follow-up.

Methods: We performed a concurrent cohort study with 120 2nd year (M2) and 120 1st year (M1) students. Outcomes for first aim were students’ perception of the need for an upperclassman as a “peer mentor” and the identification of peer role models. For the second aim, the PMN information was collected using the PMN Assessment anonymous survey at baseline. For the second aim, 80 students (M1 and M2) that participated in the PMN program took a follow up survey at the end of the PMN first year. The outcomes were whether the upperclassman was considered a valuable resource and whether the student considered that the program fulfilled positive outcomes.

Results: The response rate was 50%. At baseline, over 90% of students wanted a structured program to facilitate relationships with older students and believed a PMN would encourage a close-knit community. About 67% agreed that an M2 as a “peer mentor” would help relieve stress, 69% agreed that M2 students help M1s find a good study method, and 89% that M2 helps adjust to medical school life. For the second aim, 68 participants were included (21 M1s, 48 M2s). 87% said their mentor was accessible, 91% was approachable, 86% was supportive and encouraging, 75% believed M2s’ marked academic success, 84% would like the PMN to continue, and 63% thought the PMN fulfilled the need of interacting with upperclassmen. Only 5% of participants did not think the PMN was beneficial.

Conclusions-Implications: M1s and M2s believed the PMN would be a beneficial addition to HWCOM. The PMN was perceived to positively impact their transition into medical school. The follow up survey demonstrated that the program was perceived favorably by most participants, who agreed that the program was beneficial.

P20. The role of pre-clinical and clinical training in LGBT and gender health education on medical students’ comfort with gender and sexuality health concerns
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Introduction and Objective: Lesbian, gay, bisexual, and transgender (LGBT) individuals represent a unique population in the clinical environment, whose health needs require adequately trained and competent health professionals. The training of competent physicians relies heavily on comprehensive medical education, in both pre-clinical and the clerkship years, and there is growing interest among medical colleges in teaching LGBT health competencies to medical students. However, limited data exists to assess the educational needs of students regarding LGBT health, and few curricular interventions have been introduced into pre-clinical or clinical coursework. The objective of our study aims to identify if formal pre-clinical or clinical training in gender and sexuality, and specifically LGBT health competencies, impacts the comfort level of medical students at the Herbert Wertheim College of Medicine with regards to LGBT patients and broader gender and sexuality health concerns.

Methods: 222 (52% response rate) responses from FIU HWCOM medical students originally collected through a cross-sectional internet-based survey were analyzed. The survey was administered using bivariate (eg: Chi-square), multivariate (eg: logistic regression), non-parametric (eg: Wilcoxon rank-sum test) and exploratory factor analysis techniques. Results will be analyzed to determine what, if
any, impact pre-clinical, clinical, and/or social exposure to gender and sexual health concerns or LGBT-specific health concerns have on students’ comfort with interacting with LGBT patients and providing gender and sexual health-specific and appropriate care.

Conclusions-Implications: Based on the data analysis, we hope our curriculum will be modified to meet and address the needs of the students with regards to their knowledge and ability to work with and provide care for the LGBT population.

P21.

Behind the White Coat Lecture Series
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Introduction and Objective: “Behind the White Coat” is designed as a longitudinal lecture series featuring our own FIU HCOM deans, faculty and staff. The premise of the series is simple – provide a medium for our deans, faculty and staff to speak candidly about the struggles and successes surrounding their journey in medicine. This program not only motivates and benefits our student body, but also provides our faculty with an opportunity to share their journey in a safe and welcoming environment.

Methods: Study participants were individuals voluntarily attending one of the installations of the lecture series. Pre/post lecture surveys were administered to quantify levels of motivation pre/post lecture, likelihood of repeated attendance, and emotions experienced during the session, and assessment of important physician qualities. Emotions included: inspired, motivated, content, energized, empowered. Physician qualities included: reflection, mindfulness, humility, resilience, inner strength. T test analysis of the aforementioned variables was conducted with pre/post test results.

Results: Statistically significant increases in levels of motivation were found in attendees per pre/post lecture survey results. Moreover, statistically significant increases in positive emotional experiences and marked gains were found in attendees per pre/post lecture survey results.

Conclusion-implications: This motivational program provides medical students with an opportunity to see their professors and role models as human beings who endured the same kinds of opportunities and challenges that they themselves face. This medium also offers students an opportunity to connect with faculty in a personal way. It serves to provide the students with an opportunity to reflect and step back from the day to day pressures and deadlines of medical school. Most importantly, it reminds us all of the importance of trusting the process, staying motivated, and continuing to search for our calling. Data supports that this provides a medium for our deans, faculty and staff to speak candidly about the struggles and successes surrounding their journey in medicine. This program not only motivates and benefits our student body, but also provides our faculty with an opportunity to share their journey in a safe and welcoming environment.

P22.

Determining Associations between Adverse Childhood Experiences and Bullying Perpetration in U.S. Pediatric Population: A cross-sectional study
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Introduction and Objectives: Bullying has become a national concern. Adverse childhood experiences can weaken a child’s emotional health and overall well being and could be associated with that child being a bully. The objective of this study was to determine if there is an association between adverse childhood events and being a bully. We hypothesize that there will be an association between adverse experiences can be emotionally stressful, resulting in children externalizing their behavior in the form of bullying.

Methods: Our research design is a cross-sectional study using data from the National Survey of Children’s Health (NSCH) survey conducted between February 2011 and June 2012. Our sample was restricted to children ages 6–17 years. Study participants were further excluded if they refused to answer the questions regarding the variables being investigated, if they did not know the answer, if their answers were missing in error, or if they did not complete the interview. The outcome of bullying perpetration was measured by the survey respondent’s assessment of how often their child bullied. The independent variables include whether the child lived with anyone who had a problem with alcohol or drugs, with a parent or guardian who died, or with a parent or guardian who served time in jail or prison after their child was born. The associations were measured using odds ratios. A logistic regression model was used to aid in controlling for bias and confounding variables.

Results: The final sample size after exclusion was 65850 children of this group, 11% were reported to bully. According to our findings, children living with a parent or guardian who served time in jail had an increased likelihood of being a bully (OR 2.3; 95% CI 2.0-2.7). No significant association was found between living with a parent or guardian who has died (OR 1.2; 95% CI 1.0-1.5) or the child living with anyone with an alcohol or substance abuse problem (OR 1.7; 95% CI 1.5-2.0) and the child being a bully.

Conclusion-Implications: A statistically significant association was found between a child who had a parent or guardian go to jail after they were born and with being a bully. While the focus of our study was on risk factors of bully perpetration, subsequent works can elucidate the protective factors associated with having an incarcerated parent to aid future interventions.

P23.

Polyunsaturated Fatty Acids Associations with Serotonin Transporter Binding in Major Depressive Disorder Assessed with [123I]DASPET
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Introduction and Objective: Low serotonin transporter (5-HTT) binding and imbalances in polyunsaturated fatty acids (PUFAs) have been implicated in major depressive disorder (MDD). Using positron emission tomography (PET) with [123I]DASPET, we studied relationships between 5-HTT binding and plasma PUFAs levels in MDD patients and healthy volunteers (HV). Since lower n-3 (omega-3) PUFAs relative to n-6 PUFAs are seen in MDD, we hypothesized that docosahexaenoic acid (DHA, 22:6n-3) would correlate positively and arachidonic acid (AA, 20:4n-6) would correlate negatively with 5-HTT binding, with a more pronounced effect in MDD. Eicosapentaenoic acid (EPA, 20:5n-3) is a control as it occurs in low levels in the brain.

Methods: MDD patients (n=23) and HV (n=8) had fasting blood drawn on the day of [123I]DASPET PET. Plasma samples were quantified using direct trans esterification and gas chromatography. In the MDD group, the binding potential (BPND) of [123I]DASPET was calculated for 12 brain regions of interest (ROIs) as BPND = V T – V ND /V ND (V T = volume of distribution, V ND = non-specific binding in the ROI).

Convergent BPND correlations between PUFAs levels and BPND were observed, but must be replicated, given the small size of the HV sample. The most significant results were negative correlations between plasma AA and 5-HTT binding. These AA findings are consistent with a cascade previously observed in 5-HT-deficient mice.

Conclusions-Implications: Our hypothesis of differential directionality of n-3 vs. n-6 PUFAs correlations with 5-HTT binding was not supported: group effects on correlations between AA and BPND were not observed, replicating the small size of the HV sample. The most significant results were negative correlations between plasma AA and 5-HTT binding. These AA findings are consistent with a cascade previously observed in 5-HT-deficient mice.

P24.

Gender Disparities in the Administration of Thrombolytic Therapy in Hispanics with Acute Ischemic Stroke
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Introduction and Objective: Treatment of acute ischemic stroke with tissue plasminogen activator (t-PA) has shown to greatly improve outcomes. However, findings in the published literature have shown that women receive t-PA at a lower rate than men. This study aims to determine if there is a difference in the administration of t-PA in a scarcely studied Hispanic population between Puerto Rican men and women diagnosed with acute ischemic stroke. Methods: We conducted a secondary analysis of the Puerto Rican Cardiovascular Surveys. A prospective non-concurrent study that collected information from medical records of acute ischemic stroke cases in each of the 21 hospitals located across Puerto Rico in 2007, 2009, 2011. Participants diagnosed with hemorrhagic stroke, transit ischemic attacks, and below the age of 18 were excluded. The main independent variable was gender, and the dependent variable was t-PA administration. Other variables included in the analysis were age, body mass index (BMI), marital status, hypertension, hyperlipidemia, diabetes mellitus, smoking status, alcoholism, and atrial fibrillation. We used SPSS software (version 18) for data analysis. We performed bivariate analysis, using Pearson chi-squared testing to compare categorical variables. Next, we used multivariate analysis for t-PA administration as the dependent variable and controlling confounding variables.

Results: Our study analyzed 2118 (51.6%) women and 1982 man diagnosed with acute ischemic stroke. A greater proportion of men received t-PA, when compared to women; 6.6% versus 4.1%. Women had 40% lower odds of receiving t-PA when compared to men (OR=0.6, 95% CI 0.4-0.8). When adjusted for variables including age, BMI, hypertension, smoking status, and alcohol, women continued to have 40% reduced odds of receiving t-PA. (OR=0.6, 95% CI 0.4-0.9). When comparing men and women in this population, women were older and more likely to have hypertension, while men were more overweight/obese, and more likely to smoke and have alcoholism. Over 70% of the population was insured. Over half of the study participants were diabetic, while relatively fewer patients had existing diagnoses of hyperlipidemia and atrial fibrillation.
fibrillation, which are major risk factors for acute ischemic stroke. Conclusions-Implications: Results from this study suggest that Hispanic women hospitalized in Puerto Rico with acute ischemic stroke during the study years have 40% less odds of receiving t-PA, even when adjusted for variables such as age, BMI, hypertension, diabetes, atrial fibrillation, smoking status and alcoholism. This difference, although not yet fully understood, underscores for further investigation of this topic and possibly a revision of current stroke protocols to improve outcomes in Hispanic women.

P26. Mechanical fatigue testing of an implantable intrafascicular electrode system
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Introduction and Objective: We developed an implantable device that uses longitudinal intrafascicular electrodes (LIFEs) to stimulate/record from small groups of fibers in peripheral nerve fascicles in upper-limb amputees. Since the electrodes and leads must maintain functionality when exposed to stresses during routine activities like walking or lifting, mechanical fatigue testing is necessary to assess the long-term reliability before clinical deployment.

Methods: Our device consists of a stimulator/recorder unit with a 15-wire lead assembly. A primary sheathed bundle (15 coiled wires) leads to a trifurcation into 3 sub bundles (5 coiled wires each bundle), each of which further separates into individual wires (LIFEs). Each LIFE is a 23μm insulated Pt/Ir wire with a 1mm active length. Using a needle, each LIFE is sewn longitudinally into the fascicle and sutured to the nerve at the entry and exit points. When implanted, high stresses may occur on the primary bundle near the trifurcation, at the point where the individual wires exit the sheath, or at the nerve suture points. Mechanical fatigue at these points could trigger device failure such as breakage of electrode wires or cracks in the sheath or implant. Equipment and procedures were developed to expose the implantable device to stress conditions that mimic the anticipated stress profiles in the upper arm. One setup imposes longitudinal strain on a compliant structure that models the nerves: LIFEs were sewn into the model nerve and anchored using sutures to mimic surgical installation. The second setup imposes angular stresses on the implant by repeatedly bending it about its long axis. For each test, two and each section was examined using a high power microscope. Two test paradigms were used: a low repetition/high amplitude paradigm to mimic strenuous activities such as lifting (1.2 million cycles; based on OSHA guidelines) and a high repetition/low amplitude paradigm to mimic activities such as walking (7.3 million cycles based on a 2-year design life at 10,000 steps/day). Linear strain amplitudes of 5% (low) and 15% (high) and angular strain amplitudes of ±15º (low) and ±45º (high) were chosen for the respective fatigue tests.

Results: All electrode wires tested retained electrical continuity and passed visual inspection after the linear strain test was completed. Similar results were obtained for all trifurcation junction specimens.

Conclusions-Implications: These results suggest that the set of leads and the wires as well as the trifurcation junction in our implant may maintain functionality after implantation in the upper arm.

P27. The association between t-PA administration and in-hospital mortality following acute ischemic stroke in Puerto Rican patients
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Introduction and Objective: Despite doing the standard of care, thrombolytic therapy with tissue-plasminogen activator (t-PA) is currently administered only to 5% of acute ischemic stroke (AIS) patients in the United States. Published scientific information is scarce regarding both the use of t-PA for AIS in Hispanic patients, and its impact on short-term mortality. This study aims to investigate the rate of t-PA administration, to compare the risk of in-hospital mortality and its correlates among AIS patients in Puerto Rico according to treatment with t-PA.

Methods: We performed secondary analysis of data from patients with AIS admitted to acute care facilities throughout Puerto Rico while participating in the Puerto Rico Cardiovascular Disease Surveillance System in study years 2007, 2009, and 2011. Multivariable logistic regression was used to determine the independent association between treatment with t-PA within 4.5 hours of symptom onset and in-hospital mortality.

Results: Of the 1950 study patients hospitalized with AIS, 5% received t-PA treatment. After adjustments for demographic and clinical confounders, patients receiving t-PA had similar odds for in-hospital mortality (OR=0.94, 95% CI=0.59-1.52, p=0.79) but a significantly shorter time to treatment (t-PA OR=0.49, 95% CI=0.81-1.76). Patients receiving concomitant anticoagulation were independently associated with lower in-hospital mortality (OR=0.42, 95% CI=0.20-0.88). Patients aged >85 years (OR=2.03, 95% CI=1.33-3.08), those who measured obese (OR=1.88, 95% CI=1.01-3.49), and those who arrived by ambulance (OR=3.61, 95% CI=1.95-6.68) were independently associated with higher in-hospital mortality.

Conclusions-Implications: The findings suggest that t-PA is cytoprotective and lack of this pathway exacerbates TAT-induced pathology, with the interactive effects of morphine potentially converging at this pathway.

P28. Mode of transportation to hospital and in-hospital mortality in patients presenting with acute stroke in Puerto Rico
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Introduction and Objective: Stroke has been recognized as the fourth most common cause of death in the United States and a major cause of death worldwide. Research efforts have recognized the benefits of shortening the time to intervention and have addressed hospital protocols for acute stroke patients. However, few studies have looked at outcomes secondary to mode of transportation to the hospital. The objective of our study is to determine if there is an association between mode of transportation and mortality in acute stroke patients in Puerto Rico.

Methods: We performed a secondary analysis of data collected as a retrospective cohort as part of the Puerto Rican Cardiovascular POSTER ABSTRACTS

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Disease Surveillance System. The study population consisted of adult Hispanic of all ages residing in Puerto Rico, consecutively hospitalized for suspected acute stroke at all medical centers with acute care services during the period 2009 and 2011. We excluded patients with TIA, subarachnoid hemorrhage, and intracranial hematoma, as well as patients transferred from other hospitals. The independent variable is the mode of transportation to a treatment facility (private or ambulance). The dependent variable was all-cause in-hospital mortality. Logistic regression models were used to test the independent associations between mode of transport and in-hospital mortality. SPSS was used for analysis. P-value<0.05 for a two-tailed test was considered significant.

Results: A total of 3,427 acute stroke patients were included in this analysis, of which only 37.8% (N=1296) were transported to the hospital via EMS. Then unadjusted odds of in-hospital mortality for patients who arrived by EMS compared to private transport was 2.9; 95% Confidence Interval (CI) : 2.3 - 3.7; P<0.001. After adjustment for demographic characteristics, smoking and alcohol use, co-morbidities, and use of 1-PA, the odds ratio (OR) for arriving by EMS was 2.7; 95% CI : 2.0 - 3.6; P<0.001. Analysis of a subset of 367 patients with data on NIHSS scale (to assess stroke severity at admission) suggested that higher stroke severity was associated with EMS transportation. Inclusion of stroke severity in the adjustments yielded non-significant associations between EMS transport and in-hospital mortality (OR=1.4, 95% CI=0.2 - 7.8).

Conclusions-Implications: We found evidence for higher in-hospital mortality in patients arriving by EMS for health care, but results are likely due to variations in stroke severity.

P30.
A comparative analysis of stroke in Haitian and non-Haitian populations of South Florida
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Introduction and objective: The USA contains the second largest Haitian population outside the country of Haiti; however, there is only one publication within PubMed concerning the management of Haitian stroke patients, and the comorbidities surrounding their cerebrovascular accidents. Our objective was to compare the demographics, comorbidities, management and outcomes in the Haitian and non-Haitian patients with stroke treated at Baptist Hospital in Miami.

Methods: We conducted a non-concurrent cohort study utilizing the Baptist Hospital "Get with the Guidelines Stroke Database." Inclusion criteria were defined as Haitian and non-Haitian patients with a diagnosis of stroke, treated between the years 2008-2014. Two-way contingency table analysis was performed on patient age, BMI, cholesterol, triglycerides, HDL, LDL, Hgb A1c levels, systolic and diastolic blood pressures, and time between symptom onset and hospital arrival. Two-way contingency table analysis was used to compare rates of comorbidities (atrial fibrillation, hypertension, coronary artery disease, diabetes mellitus, previous transient ischemic attacks, and smoking status), insurance status (Medicare or private insurance versus Medicaid or self-pay), management (rates of tissue plasminogen activator), and patients' ability to ambulate on discharge.

Results: We identified 56 Haitian and 112 non-Haitian patients. Haitian patients had higher diastolic blood pressure compared to control patients (99.5 vs 88.0 mmHg; p = 0.03). The prevalence of atrial fibrillation was lower in Haitian patients, versus controls (3.6% vs 17.9%; p = 0.019). Rates of Medicare or private insurance were lower in Haitian versus control patients (57% vs 88%; p=0.00001).

Conclusions-Implications: We found a statistically significant difference in terms of Medicare or private insurance carriers between the two populations. The other significant differences we found were that Haitian patients had higher diastolic blood pressure and a lower incidence of atrial fibrillation. However, the preliminary results still represent a fraction of our actual estimated Haitian patients. We expect to find more statistically significant differences between the two patient populations as we accumulate more patients from our database. We project the database will include an estimated 150 Haitian patients and 300 controls upon completion, which will further increase the statistical power of this study.

POSTER ABSTRACTS

P31.
Withaferin A suppresses Beta amyloid in APP expressing cells: Studies for Alzheimer’s disease
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Introduction and Objective: Alzheimer’s disease (AD) is a highly prevalent neurodegenerative disease affecting ~36 million people globally. It is characterized by memory loss and various progressive neurocognitive dysfunctions. Histopathological trademark of AD are extracellular aggregates of beta amyloid (Aβ) plaques and intracellular neurofibrillary tangles, made of hyperphosphorylated tau protein in cortical and limbic areas of human brain. The anomalous processing of Amyloid precursor protein (APP) by β-secretase and γ-secretase into Aβ40 and Aβ42, leads to aggregation into plaque formation. In search of efficacious therapy against AD, traditional and natural products have come into the picture. Ashwagandha (ASH) is one among them, whose activity is attributed to Withanolides. Withaferin A (WA), one of the Withanolides that is extracted from ASH which has higher activity and is the active moiety of ASH. Our objective is to study the neutralizing effect of purified WA against Aβ which may be of high therapeutic importance.

Methods: The SH-APP cells expressing Aβ plaques in APP expressing cells: Studies for Alzheimer’s disease activity is attributed to WA and Aβ levels were analyzed by ELISA and APP precursor protein quantified by Western Blot with antibodies against APP. The dose response studies of WA in SH-APP cells were confirmed by doing MTT assay and percent cell viability.

Results: WA can induce cytotoxic effects in SH-APP cells (human neuroblastoma cell line stably over-expressing human APP751) compared to parent cells. WA suppresses Aβ in SH-APP cells in a dose-dependent manner by inducing toxicity or lowering the cell viability of the treated cells.

Conclusions-Implications: Targeting Aβ plaques with natural products and their purified products may have significant therapeutic values. Further studies using the nanofiltration of WA for their potential in BBB transmigration are currently in progress. Characterizing the nanofiltration and employing it in animal model for doing behavioral studies are our future perspectives.

P32.
“4746 FLT Positron Emission Tomography/Computed Tomography Imaging in Pancreatic Cancer: Determination of Tumor Proliferative Activity and Comparison with Glycolytic Activity as Measured by 18F-FDG Positron Emission Tomography/Computed Tomography Imaging
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Introduction and objective: This phase-I imaging study examined the imaging characteristics of 3'-deoxy-3'-( 18 F)-fluorothymidine ( 18 F-FLT) PET/CT imaging in Pancreatic Cancer: Determination of Tumor Proliferative Activity and Comparison with Glycolytic Activity as Measured by 18F-FDG Positron Emission Tomography/Computed Tomography Imaging.

Methods: Six patients with newly diagnosed pancreatic cancer underwent a combined 18F-FLT and 18F-FDG computed tomography (CT) PET/CT imaging protocol. The FLIT PET/CT scan was performed within 1 week of 18F-FDG PET/CT imaging. Tumor uptake of a tracer was determined and compared using various techniques; statistical thresholding (z score=2.5), and fixed standardized uptake value (SUV) thresholds of 1.4 and 2.5, and applying a threshold of 40% of maximum standardized uptake value (SUV) (<0.8 mean).

Results: The correlation of functional tumor volumes (FTV) between 18F-FDG and 18F-FLT was assessed using linear regression analysis.

Conclusions-Implications: Different tumor segmentation techniques yielded varying results in estimation of FTV in FLT and FDG PET images. FLT imaging may have a different meaning in determining tumor biology and prognosis.

P33.
Keeping the Family Healthy: Unintended Pregnancy as a Risk Factor for Post-Partum Depression in the United States
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Introduction and Objective: Post-partum depression (PPD) is a form of major depressive disorder (MDD) affecting approximately 13% of women worldwide. According to the Centers for Disease Control and Prevention, 11-18% of women report frequent symptoms that include feeling disconnected to the infant, having scary or negative thoughts about the infant, feelings of guilt, low energy, difficulty concentrating, and suicidal thoughts. Post-partum depression is associated with higher maternal morbidity and mortality, and ultimately affects the cognitive, behavioral, and emotional development of the child. While many physiological and psychological causes have been studied, the etiology of PPD continues to remain unclear. Unintended pregnancies (UP), reaching close to 50% of the pregnancies in the US, have become a major health concern. UP are associated with poorer health outcomes for both mother and child. The objective of this study is that we aim to investigate the association between pregnancy intendedness and post-partum depression.

Methods: We analyzed surveillance data from the Centers for Disease Control and Prevention’s Pregnancy Risk Assessment Monitoring System (PRAMS) from 2009 to 2011. The PRAMS population-based random sample includes women who have had recent live births. The Chi square test was used to determine bivariate associations. Binarity logistic regression was utilized to study potential confounding factors. Co-linear diagnostics were run to identify any co-linear variables. Data analysis was completed using STATA 13.

Results: We found a significant association between pregnancy intendedness and symptoms of postpartum depression. Of the 110,231 women sampled nationwide only 32.3% reported desiring the pregnancy at the time of conception (67.7% UP). The women who were found to have mistimed pregnancies experienced higher rates of symptoms of depression. In the adjusted model women who...
desired the pregnancy sooner were 20% more likely to experience symptoms of depression than those who desired pregnancy at the time of conception (OR= 1.2 [95% CI 1.1-1.3]). Women who desired the pregnancy later have been heavily investigated. Early detection of PPD is important; however, there is limited conclusive evidence on the specific risk factors that aid in detection. Among these is pregnancy intendedness, the focus of our study, due to the high prevalence of unintended pregnancies in the U.S. Our study found a significant association between pregnancy intendedness and PPD. These results can be used to improve upon the diagnosis of PPD by highlighting women who meet this criterion. The conclusion of this study that pregnancy intendedness was found to be a significant risk factor for symptoms of depression during the post-partum period. This finding encourages physician evaluation of pregnancy intendedness during the patient's pre-natal and post- partum office visits. It pertains to both the obstetrician and the child's pediatrician frequently in the weeks following birth. In addition, our study supports the current recommendation of the Bright Futures and American Academy of Pediatrics Mental Health Task Force to integrate screening into the well-child care schedule and prenatal visits, aiding in the early detection of depression and post- partum office visits. It pertains to both the obstetrician and insurance/WIC use) and showed similar results for insufficient weight gain (OR=1.7, 95% CI=1.4-2.2) and excessive weight gain (OR=0.6, 95% CI=0.5-0.8),

Independent of GWG, a maternal age of 19 years or younger showed an increased risk of preterm labor compared to all other age groups (OR=1.9, 95% CI=1.5-2.4). However, when maternal age was analyzed as an effect modifier for GWG in the outcome of preterm labor, the association was found to be non-significant (OR=1.0, 95% CI=0.9-1.1, p value=0.63).

Conclusions-Implications: Our study found evidence that insufficient weight gain is associated with a higher risk of preterm delivery, while excessive weight gain was found to have a protective effect against the outcome. Furthermore, the association between GWG and preterm labor does not appear to be modified by maternal age.

P35. Combining Abdominoplasty and Gynecologic Procedures - Assessment of Operative Complications

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Introduction and objectives: Combined surgical procedures are highly sought out by patients and can offer the benefit of cost and time efficiency. Among patients, there is increasing interest in combining cosmetic procedures, such as an abdominoplasty, with medically necessary procedures, such as a hysterectomy. From a surgical standpoint, the perceived benefits of combining procedures include reduced healing time, decreased hospital stay, and reduced risks from anesthesia – from two anesthesia events to one. In addition to patient health, economical savings from one procedure include reduced costs and increased productivity. However, combining procedures increases operative time, which is often associated as a risk factor for post-operative complications. Our objective is to characterize our patients who underwent combined abdominoplasty and gynecologic surgery, describe the post-operative complications encountered, and to discover whether this combination is technically and logistically feasible.

Methods: Charts of the 68 patients who underwent the combined procedure of abdominoplasty and hysterectomy were retrospectively reviewed between June 1989 and December 2015. Patient demographics were evaluated including age, weight, BMI, co-morbidities, and smoking history. Method of surgery was documented and whether additional procedures were performed. We evaluated surgical time, estimated blood loss, transfusion received, operative time, intraoperative complications, wound infections, long term complication, revisions, and post-op weight loss.

Results: The mean age of patients was 46 years (± 8.3), the average weight was 184 lb (± 58), and the average BMI was 31.9 (± 9.9) for the case series. Additionally, the average time of surgery was 209 min (± 69.3), and the average length of hospital stay was 3.8 days (± 1.8). Overall complication rate was 32.7% including: intraoperative transfusion (4.5%), Fever (9.1%), UTI (5.1%), atelectasis (9.1%), and wound complications (13.8%). There were no deep venous thrombosis or pulmonary embolisms reported which are rare but serious complications.

Conclusions-Implications: Much controversy revolves around combining two different surgical procedures from two different surgical regions of the body. The benefits of combining these aforementioned procedures include a decreased number of anesthesia inductions and recoveries, and similarly reduced cost and time. The greatest fear of combining these two procedures is the possible increased rate of complication due to increased surgical time. Future studies aimed at identifying potential mechanisms in which marriage confers survival advantages and to test potential interventions for improving survival in single patients are needed.

P36. Association between marital status and survival post-melanoma in Florida patients

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Introduction and Objective: The highest incidence of melanoma in the United States. Previous research suggests the presence of a spouse may considerably affect melanoma detection rates through more frequent examinations, better access to healthcare, and good social support. Whether marital status affects survival in Florida’s melanoma patients is yet unknown. The objective of our study is to determine whether there is an association between marital status and survival following melanoma diagnosis in Florida patients.

Methods: Setting: The study was performed using data from participants of the Florida Cancer Data System (FCDS), the Florida Health Department surveillance program for selected cancers.

Participants: All melanoma patients reported to the FCDS were included for analysis.

Design: We used a retrospective cohort design including melanoma patients diagnosed between 2001 and 2009 and with follow-up information available until 2015.

Independent variable: Marital status categorized as single, married, divorced, or widowed.

Main Outcome: Time from melanoma diagnosis to death, assessed according to the time interval from the date of diagnosis to the time of death or last contact. Patients alive at last contact were censored.

Analysis: Cox proportional hazards models were used to assess the independent association between marital status and survival. Results: Overall, about 94% of patients were Non-Hispanic White, 59% were males, and the sample had an average age of 62.5 (SD 16.2) years at diagnosis. About 26% of patients had died at the time of last contact. Married patients were significantly more likely to survive than single patients (Hazard ratio (HR)=0.65; 95% Confidence Interval (CI): 0.57-0.74; P=0.01) after adjusting for age, sex, race, ethnicity, geographic location, insurance status, tobacco use, primary site, stage, and histology. Survival for divorced and divorced patients compared to singles were not statistically significant after adjustment for confounders (HR=0.87, 99% CI=0.74-1.01 and HR=0.89, 99% CI=0.74-1.08, respectively).

Conclusions-Implications: Single patients are at a higher risk of death after melanoma diagnosis compared to married patients. Future studies aiming to identify potential mechanisms in which marriage confers survival advantages and to test potential interventions for improving survival in single patients are needed.

P37. The impact of insurance status on stage of colorectal cancer at diagnosis

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Introduction and Objective: In the United states colorectal cancer (CRC) is a common disease with many genetic and environmental risk factors. Recent years advanced surveillance techniques have been developed to increase early stage diagnosis. Factors such as insurance status have been shown to be associated with utilization of preventative resources and could influence timing of diagnosis. Identifying risk factors for late stage diagnosis in Florida residents will provide valuable information so that interventions may be developed to address discrepancies. This study aims to determine if there is an association between insurance status and colorectal cancer (CRC) stage at diagnosis.

Methods: This is a retrospective population-based cross sectional study using data obtained from the Florida Cancer Data System (FCDS) from 2010-2014. Our population was composed of 33,726
subjects. A bivariate analysis was used to examine the association of insurance status and each confounding variable with stage at diagnosis. Multivariate logistic regression models were used to calculate the odds ratios and 95% confidence intervals (CI) to examine the association between insurance status and stage at diagnosis of CRC while controlling for all confounding variables.

Results: The unadjusted data shows that uninsured and Medicaid patients are 2.2 (95% CI 1.3-3.7), p<0.001 and 1.6 (95% CI 1.5-1.8, p<0.001) times more likely to have distant disease, respectively, compared to privately insured individuals. These associations remained significant in the adjusted analyses, with uninsured patients being 1.4 (95% CI 1.1-1.8) times more likely to have distant disease (95% CI 1.3-1.6, p<0.001). In addition, the association remained in the adjusted data for Medicaid (OR 1.6, 95% CI 1.4-1.7, p<0.001).

There were no significant associations between Medicare or other government patients with distant disease at diagnosis.

Conclusions-Implications: Our data show a relationship between insurance status and distant disease. Both uninsured and Medicaid patients are more likely to present with distant disease compared to privately insured patients. Medicaid and uninsured patients had an equal increase in odds of distant disease, suggesting that this difference cannot be fully attributed to differences in access. Further studies should focus on the differences between uninsured and Medicaid populations and investigate variables that affect utilization in Medicaid patients.

P38.
Adjuvant Chemotherapy in the Treatment of Pediatric Cerebellar Cancer

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Introduction and Objective: Cerebellar cancers make up 16% of central nervous system (CNS) tumors, the largest percentage of any region of the brain. The current standard of care for treating children between the age of 3 and 18 diagnosed with cerebellar cancer is surgery with post-surgical chemotherapy and radiation in various chemotherapeutic combinations. Adjuvant chemotherapy is often used in children under the age of three to delay radiation treatments that commonly lead to development sequelae, its benefit in older children is still unclear. This study explores whether adjuvant chemotherapy along with surgery and radiation improves overall survival in children between the ages of 3 and 18 with cerebellar cancer when compared to surgery and radiation without chemotherapy.

Methods: This retrospective cohort study analyzed data collected from 1981 to 2013 by the Florida Cancer Data System (FCDS). All patients with a primary cerebellar tumor between the age of 3 and 18 were included. The independent variable was treatment with surgery, radiation, and adjuvant chemotherapy whereas the control group was treated with surgery and radiation only. The dependent variable was overall survival, defined as the percent of patients still living during a 10-year timespan, assessed based on the interval from primary surgery to death due to any cause. Independent associations between adjuvant chemotherapy and survival were assessed through Cox proportional hazard models. Potential confounders assessed included age, sex, race, insurance status, decade of diagnosis, histological subtype, stage, and extent of surgical resection. Only the latter four were statistically significant and included in the adjusted hazard ratio.

Results: The sample included 231 patients (64% male) with a mean age of 3.3 years and a median survival of 8.8 years. The unadjusted hazard ratio demonstrated that patients receiving chemotherapy were more likely to die compared to patients not receiving chemotherapy (HR=1.37, 95% CI=0.55, 3.38, p=0.49). The adjusted hazard ratio also demonstrated that patients receiving chemotherapy were more likely to die compared to patients not receiving chemotherapy (HR=1.52, 95% CI=0.45, 5.17, p=0.50), however this was not statistically significant.

Conclusions-Implications: The findings suggest that adjuvant chemotherapy with conventional surgery and radiation had no statistically significant improvement on overall survival when compared to treatment with surgery and radiation alone. Repeating this analysis using a national database and limiting it to patients diagnosed with medulloblastoma, the most common cerebellar cancer, would improve the sample size and clinical application of this study.

P39.
Racial and Ethnic Disparities in Pancreatic Adenocarcinoma

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Introduction and Objective: Adenocarcinoma is the most common primary intraocular malignant tumor and the most common intraocular cause of mortality in adults. The majority of ocular melanoma metastasizes from the uvea (approximately 83%) followed by conjunctival melanomas. Our objective was to assess if there was a difference in mortality between uveal melanoma (UM) and conjunctival melanoma (CM) in patients diagnosed in Florida between 1981 and 2015.

Methods: Retrospective cohort study based on secondary data of patients diagnosed in Florida between 1981 and 2015.

Results: 2381 patients with primary UM and 210 cases of primary CM between 1981 and 2015 in Florida were included in the study. After adjusting the aforementioned variables there was no statistically significant difference in survival in CM compared to UM, with a hazard ratio (HR) of 0.9 (95% CI 0.7-1.3). Median survival time was found to be 8 years in UM and 7.3 years in CM. There was an increase in hazard of mortality with increasing age of diagnosis. In addition, current smokers had a 50% increased hazard of death as compared to patients who had never smoked (HR 1.5, 95% CI 1.2-1.8), while former smokers have a similar risk as those who never smoked. Patients with regional or distant extension of disease at the time of diagnosis had a 3.3 (95% CI 1.5-6.9) and a 4.1 (95% CI 1.9-8.9) times increase in hazard of mortality, as compared to those with local disease (HR 2.0 [95% CI 1.4-2.8] and HR 11.0 [95% CI 7.4-16.6], respectively). Female sex provided a statistically significant survival benefit (HR 0.8, 95% CI 0.7-0.9).

Conclusions-Implications: After adjustment, there was no statistically significant difference in survival in CM compared to UM. Patients who have a longer median survival than previously reported (8 years versus 4 years). This may due the improvements in diagnosis and recent therapy compared to earlier decades. Furthermore, our results indicate that cessation of tobacco use can improve mortality in both CM and UM.

P40.
Mortality difference between uveal and conjunctival melanoma in Florida between 1981 and 2015

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Introduction and Objective: Ocular melanoma is the most common primary intraocular malignant tumor and the most common intraocular cause of mortality in adults. The majority of ocular melanoma metastasizes from the uvea (approximately 83%) followed by conjunctival melanomas. Our objective was to assess if there was a difference in mortality between uveal melanoma (UM) and conjunctival melanoma (CM) in patients diagnosed in Florida between 1981 and 2015.

Methods: Retrospective cohort study based on secondary data of patients diagnosed in Florida between 1981 and 2015.

Results: 2381 patients with primary UM and 210 cases of primary CM between 1981 and 2015 in Florida were included in the study. After adjusting the aforementioned variables there was no statistically significant difference in survival in CM compared to UM, with a hazard ratio (HR) of 0.9 (95% CI 0.7-1.3). Median survival time was found to be 8 years in UM and 7.3 years in CM. There was an increase in hazard of mortality with increasing age of diagnosis. In addition, current smokers had a 50% increased hazard of death as compared to patients who had never smoked (HR 1.5, 95% CI 1.2-1.8), while former smokers have a similar risk as those who never smoked. Patients with regional or distant extension of disease at the time of diagnosis had a 3.3 (95% CI 1.5-6.9) and a 4.1 (95% CI 1.9-8.9) times increase in hazard of mortality, as compared to those with local disease (HR 2.0 [95% CI 1.4-2.8] and HR 11.0 [95% CI 7.4-16.6], respectively). Female sex provided a statistically significant survival benefit (HR 0.8, 95% CI 0.7-0.9).

Conclusions-Implications: After adjustment, there was no statistically significant difference in survival in CM compared to UM. Patients who have a longer median survival than previously reported (8 years versus 4 years). This may due the improvements in diagnosis and recent therapy compared to earlier decades. Furthermore, our results indicate that cessation of tobacco use can improve mortality in both CM and UM.
application of a small magnetic field (100 Oe) and reliable payload release with the application of an a.c. magnetic field (~50 Oe, 10 Hz). In vivo studies demonstrated that the MENs-PTK formulation in combination with an externally applied magnetic field reduces tumor growth rate when injected subcutaneously, and fully cures the cancer when delivered via IV injection. The MENs formulation was more successful in treating the tumor than both MN and PLGA formulations, EDS confirmed the presence of MENs in tumor tissues.

Conclusions-Implications: MENs provide a novel mechanism by which cancer cells are targeted (using the inherent difference in metabolic activity for each of the cell lines. The measures were represented in every tendon pair. Tendons were then be analyzed with one-tailed paired t-test, using SPSS.

Results: The data from our study indicate that the anatomic preparation method of Achilles tendons is significantly stronger than the central one-third method. This challenges the continued use of the central one-third method in ACL reconstruction. Taken together, these findings suggest that an ACL repair using a favorable ex vivo results do not necessarily translate to improved clinical outcomes in vivo.

P45. Neurological symptoms in children with intussusception and their outcomes at a large community hospital.

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Introduction and Objective: Intussusception most commonly presents with a triad of classical abdominal symptoms—pain, vomiting, and bloody stools. However, intussusception can also present with neurological manifestations or with the classical symptoms. This atypical presentation makes the identification of intussusception more difficult and may delay its diagnosis, potentially leading to complications. The objective of this study was to describe children presenting with neurological symptoms with or without classical symptoms have a higher frequency of complications than children who display only classical symptoms.

Methods: Historical cohort study based on chart reviewing of all children under 3 years of age with one or multiple episodes of intussusceptions seen at Baptist Health South Florida (a multi-center community hospital system) from January 2009 to December 2013. The main outcome was the frequency of failed enema and surgery to treat the intussusception. Rates of other complications such as death, admission to the intensive care unit (ICU), and recurrence of intussusception were secondary endpoints.

Results: A total of 153 episodes of intussusception were included. Most episodes were observed in infants below two years of age (71% vs. 29% for children ≥ 3 years; P<0.001). Complications were observed in 23 episodes, and according to the unadjusted analysis complications were more frequent in those presenting with neurological symptoms compared to those with classical symptoms (OR 4.1; 95% CI 1.24-13.61; p= 0.021). These findings were confirmed in the adjusted analysis where age, and duration of symptoms were controlled (OR 4.12; 95% CI 1.18 - 14.37; p= 0.026).

Conclusions-Implications: Pediatric patients presenting with neurological symptoms typically undergo various testing do determine the cause of their presentation. It is important to
Does obesity affect outcomes in children admitted from trauma centers? 

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Introduction and Objective: Pediatric obesity has reached epidemic proportions in the United States. In the critical care setting, obesity has yet to be fully studied. We sought to evaluate the effects of obesity in children who are admitted to a hospital from trauma centers using Kid’s Inpatient Database (KID). We identified statistically significant differences. We performed bivariate analyses of potential confounding variables with epilepsy. This information was analyzed using chi-square testing with an alpha level of 0.05. We used multivariate logistic regression to calculate the adjusted association between prematurity and epilepsy. Finally, we identified cerebral palsy as an effect modifier and stratified the data into a group of cerebral palsy only and a group excluding cerebral palsy.

Results: The overall prevalence of obesity (those coded as having obesity as co-morbidity) was 1.6% with significantly higher prevalence among Blacks (1.8%), Hispanics (2.3%), and Native Americans (4.1%, p<0.001). Obesity was more prevalent among females (2.4% vs 1.2%, p<0.001). Overall mortality in the cohort was 4.8%. Obesity was significantly lower among children who died during hospitalization (0.5% vs 1.6%, p=0.002). However, obese children had significantly longer LOS, greater number of diagnoses, more procedures and greater than expected loss of function due to SOI when compared with non-obese cohort (p<0.001). Delayed recovery, diabetics, hypertension, liver disease, and fluid and electrolyte disorders are all strongly associated with the presence of obesity (p<.005). The rate of intubation is similar between obese and non-obese cohorts.

Conclusions-Implications: Our study using KID national database found that obese children who are admitted from trauma centers have higher morbidity and LOS but lower mortality. Racial and gender inequalities of obesity prevalence is consistent with previous reports.

Access to prescription medications as an indicator of school day absenteeism for children with special health care needs

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Introduction and Objective: Education has been extensively studied as a leading indicator of health outcomes. The National Poverty Center (NPC) states that better educated individuals have lower morbidity rates from the most common chronic and acute illnesses regardless of many other factors including income, access to insurance, and family background indicators. Although life expectancy is increasing in the United States, the difference in life expectancy between those with and without a college education has a higher rate of mortality. This difference could even be as early as elementary school, where children from less educated families who fail to enroll into higher educational levels are more likely to drop out of school. While it has been widely known that the majority of school absences are due to health problems of the student or family members, there is little evidence present on the specific factors that prevent children from attending school. This study serves to identify if access to prescription medications is an underlying factor in the number of school absences reported by children with special health care needs (CSHCN).

Methods: The data examined in this study is de-identified data from a cross-sectional study performed as a part of the Centers for Disease Control and Prevention (CDC) 2009-2010 National Survey of Children with Special Health Care Needs (NS-CSHCN). After consideration of the exclusion and inclusion criteria, 29,881 children ages 5-17 were included in the study. Stata 14 was used for data analysis which included the use of the Chi-square statistic, bivariate analysis and subsequent binary logistic regression, and assessment of collinearity.

Results: The adjusted model revealed that CSHCN without access to prescribed medications had approximately 3.3 times higher odds of missing more than 5 days of school due to illness or injury in the previous year compared to those who had access to their medication, independent of socioeconomic, demographic, and access to health care characteristics.

Conclusions-implications: This work has important implications for realistic and sustainable implementations to increase access to prescription medications as a strategy to decrease numbers of school day absences. Compared to many of the other barriers to school attendance, for example poverty level, family structure, or other demographic variables that are inherent to a household, increasing access to medications is relatively feasible. Further investigation will involve eliciting the modifiable barriers that inhibited students from obtaining their prescription medications.
P50. Investigating the Physiological Effects of Endotracheal Suction in the Pediatric Intensive Care Unit

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Introduction and Objective: Endotracheal (ET) suction is a routine and necessary procedure for children receiving mechanical ventilation to remove accumulated secretions from the airway. The physiologic effects of ET suction with or without saline instillation during the procedure are not well studied in children. The use of saline during ET suction might help to increase sputum yield and improve airway clearance. However, saline instillation may worsen physiologic instability that can potentially occur during ET suction. This study evaluates the effect of saline on various physiologic parameters after ET suction in ventilated children.

Methods: For pediatrics of mean age 6.5 ± 3.3, n = 26 patients’ Heart Rate, Blood Pressures (Systolic and Diastolic), Respiratory Rates, and Oxygen Saturation were monitored continuously before and after suction; each patient had suction by routine or as-needed and saline was prescribed at the discretion of the clinician for a total of n = 332 suction events.

Results: The results reported are derived from the mean values of a 5-minute window before and after suction. Heart Rate was found to increase by 3.63 bpm on average due to suction with saline (P < 0.01), while all other parameters had no significant changes. However, when suction was performed without saline, Heart Rate, Systolic Blood Pressure, and Diastolic Blood Pressure increased by 3.14 bpm, 1.83 mmHg, and 1.34 mmHg, respectively (P < 0.01). Oxygen Saturation decreased by 0.28% (P < 0.01), while Respiratory Rate had no significant change.

Conclusions-Implications: The results of this study strongly suggest that the changes due to suction and saline are very small and can only be seen with large samples. This study shows that instillation of saline during ET suction does not worsen physiologic instability. Provided there are no other complications from the use of saline it can be safely used during ET suction.

P51. Venous thromboembolism incidence, risk factors, and prophylaxis in 332 patients who underwent robotic hysterectomy with staging for uterine cancer

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Introduction & Objective: Uterine cancer (UC) is the most common gynecologic malignancy in the United States. The standard of care is total hysterectomy plus pelvic staging. The Caprini Risk Assessment Score predicts that many UC patients undergoing hysterectomy will be at high risk for venous thromboembolism (VTE), including deep vein thrombosis (DVT) and pulmonary embolism (PE). VTE is the major cause of morbidity and mortality in post-operative hysterectomy patients. It is not yet clear whether minimally invasive surgery (MIS) carries a different risk of perioperative VTE compared with open surgery. The objective of this study is to determine the incidence and risk factors for VTE after MIS in patients with UC.

Methods: This was a retrospective cohort study of all patients with uterine cancer treated with MIS by 2 gynecologic oncologists from 2010-2011 converted to laparotomy were excluded. The primary outcome measure was clinically diagnosed VTE within 120 days of operation.

Results: Of the 332 patients included in this study, 97.6% underwent robotic hysterectomy and 2.4% underwent a robotic radical hysterectomy for uterine carcinoma. VTE prophylaxis included 100% on sequential compression devices and 32.1% on chemoprophylaxis with unfractionated or low molecular weight heparin: doses given on post-op day 0 (3.81%), post-op day 1 (29.8%), and post-op day 2 (6.0%). 100% of our patients had a Caprini score greater than 5, predicting that 40-80% would develop a VTE. During a 120-day follow up, the VTE prevalence was 1.5% (%332). Only 4 (1.2%) DVTs occurred in the 30 day postoperative period. 2 of the 5 patients had a previous DVT at 1 year and 30 days prior to surgery, respectively. Of the 3 patients with new onset DVT, 2 received chemoprophylaxis. The mortality rate was 0.3% (%332), representing a patient diagnosed with a preoperative DVT and PE 1 month prior to surgery and on continuous chemoprophylaxis. Only 0.4% of 228 patients not receiving chemoprophylaxis developed a DVT.

Conclusions-Implications: The Caprini score predicted a 40-60% risk of DVT/PE among UC patients, yet our rate of new onset DVT/PE was only 0.9% among this high risk group. The very low VTE rate of 0.4% among UC patients not receiving chemoprophylaxis calls into question whether chemoprophylaxis is warranted in this patient population.

P52. Biochemical characterization of ArsI: a novel C-As lyase for degradation of environmental organoarsonic compounds

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Introduction & Objective: Arsenic is a toxic environmental agent, present in polluted aquifers and soils, that degrade to methylarsonous acid (MAs(III)) by some bacterial species, and to methylarsonic acid (MAs(V)) and other biophysical techniques.

Methods: To investigate the role of specific residues in catalysis, amino acid residues lining the Fe(I)-binding site, and the substrate binding site have been altered by site-directed mutagenesis. I evaluated the biochemical properties the altered enzymes using a combination of fluorescence, isothermal titration calorimetry (ITC) and other biophysical techniques.

Results: My results employing protein fluorescence of wild type ArsI show that the enzyme has the highest affinity for the trivalent form of the growth promoter Rox(V), in order of affinity is Rox(III)>PhAs(V)>MAs(VI). The affinity (Kp for PhAs(V) and Fe(I)) determined by ITC is 0.62 nM and 4.2 μM, respectively. These data are in agreement with the results from ligand-dependent quenching of intrinsic protein fluorescence. Rox(III) has a unique absorption spectrum in ArsI produced a blue shift in the absorption spectrum of the trivalent roxarsone, allowing for real-time measurement of catalysis.

Conclusions-Implications: These data will elucidate the mechanism of ArsI catalysis, augmenting our understanding how microbes remodel the environment through biotransformation of organoarsonic compounds, and complement our understanding of the ars(III) biogeochemical cycle.

P53. A Brain Attack protocol achieving better door to needle time in stroke

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Introduction and Objective: Rapid administration of intravenous thrombolysis in patients with acute ischemic stroke requires a well-coordinated process. The American Heart Association reduced the goal of door to needle time to 60 to 45 minutes (2015 guidelines) to achieve better clinical outcomes. The objective of this study is to evaluate the impact of a change in the Brain Attack (BrA) protocol in our institution as a quality improvement project to reduce the door to needle time.

Methods: This is a single center retrospective chart review of our brain attack database before and after the implementation of a new brain attack protocol on April 2014 in the Cleveland Clinic.

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P54. Obstructive Shock in a Patient Presenting with Rectal Bleeding and Syncope

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Introduction and Objective: Aortic aneurysms (AA) can often present with sudden rapid decompensation. We present the case of a gentleman who presented with rectal bleeding and syncpe. He was found to have a large thoracic AA which led to acute decompensation and ultimately, death. We present this case in order to highlight an unusual cause of rectal bleeding and the potential lethality of decline in these patients.

Clinical Course: An 85 year old male with a past medical history of hypertension presented to the emergency department (ED) with syncpe and rectal bleeding. He had noticed bright red blood per rectum one day prior to presentation. The following morning, he experienced exertional chest pain, lightheadedness and syncpe. He was alert on arrival. His vital s in the ED were: BP 89/62 mmHg, Pulse 56 and respiratory rate of 15. Initial workup revealed a hemoglobin of 12.5, BUN of 28 and creatinine of 1.10 (unknown baseline). INR and aPTT were normal. EKG showed RRIBB. Stool was brown in color but positive for occult blood. Chest x-ray showed a mildly tortuous ectatic aorta. CT abdomen revealed diverticulitis. A CT-angiogram (CTA) was ordered to rule out abdominal aortic aneurysm. CTA revealed an aortic aneurysmal dilatation of the ascending thoracic aorta measuring 5.6 x 5 cm, with a large intramural hematoma measuring 1.5 cm in maximum thickness and hemopericardium.
62 patients (34 in the EMSg and 28 in the ED-Wg) were treated by computed tomography of the head (DTCT-time), and door to needle (DTN-time), door to door (OTD-time), door to neurologist (DTN-time), door to computed tomography (DTCT-time), and door to discharge (DTD-time). Most patients brought by EMS will have an NIHSS of 6 or more. The EMS is a determining variable to achieve better management in stroke patients.

P56.


Introduction and Objective: Autoimmune diseases are often known to occur simultaneously. There are many confirmed cases of Graves’ disease with autoimmune hepatitis (AIH) as well as AIH with immune thrombocytopenia (ITP). We present a unique case of a patient with three different autoimmune diseases – Graves’ disease, AIH and ITP occurring together and presenting significant challenges in management and treatment.

Case presentation: A 35-year-old female with no significant past medical history presented with symptoms of jaundice, dyspea and lower extremity edema (LE) for 1 month. She reported worsening dyspea on exertion for 1 week. On physical examination, she had scleral icterus, thyroid enlargement, thyroid bruit, tachycardia, irregularity of irregular heart rhythm, hepatosplenomegaly, ascites and bilateral LE pitting edema. Laboratory findings showed severe anemia, pancytopenia (hemoglobin 7.2 g/dL, white blood cell count 2.2 x 10^9 cells/L, platelet count 57 x 10^9/uL) and liver dysfunction with a cholestatic pattern (total bilirubin 4.7 mg/dL). On further evaluation, she was found to have Graves’ disease with severely decreased thyroid stimulating hormone (0.007 uIU/mL), increased free T4 (15.1 ng/dL), increased total T3 (200 ng/dL), and elevated thyroid-stimulating immunoglobulins (TSH 447 ng/L).

Thyroid ultrasound showed a diffusely enlarged, heterogeneous, and lobulated thyroid without discrete cystic or solid nodules. Computed tomography (CT) and ultrasound (US) of the abdomen showed liver heterogeneity without a definitive mass, suggestive of active inflammation. Electrocardiogram showed atrial fibrillation with rapid ventricular response. She was also found to have positive anti-thyroperoxidase antibodies and evidence of hemolytic anemia. She had elevated INR, elevated IgG, positive anti-smooth muscle antibody and negative hepatitis panel, consistent with AIH. Traditional treatment strategies like use of anti-thyroid drugs, radioactive iodine thyroid ablation or thyroidecmy were contraindicated due to the ongoing process of pancytopenia, liver dysfunction, and because the patient underwent CT scan of the abdomen with intravenous contrast, potentially interfering with radioactive iodine ablation. Liver biopsy was contraindicated due to coagulopathy.

P57.

Acute gastric volvulus: a deadly but commonly forgotten complication of hiatal hernia. Autopsy case report.

Introduction and Objective: Gastric volvulus is a rare condition resulting from rotation of the stomach beyond 180°. Gastric volvulus is a difficult diagnosis, mostly because it is rarely considered. Furthermore, the imaging findings are often subtle resulting in many cases being diagnosed at the time of surgery or, as in our case, at autopsy.

Case Report: We present a case of a 76-year-old man with an extensive medical history, including coronary artery disease with multiple bypass grafts, who became diaphoretic and nauseated while eating. His presumptive diagnosis at arrival to the hospital was an acute coronary event; however, his initial cardiac work up was negative. A chest CT scan revealed a type III sliding hiatal hernia. The following day, after consistent complaints of epigastric pain, dysphagia, nausea and vomiting. Management with furosemide, spironolactone, and propranolol. Her symptoms started improving gradually over one week and she was discharged with close outpatient follow up with endocrinology, gastroenterology and hematology.

Conclusions-Implications: This case is of great significance as it helps increase awareness of diagnostic and therapeutic challenges involved in cases with a convoluted presentation due to multiple autoimmune diseases as seen in our case. Furthermore, we believe that in curtailting autoimmune processes remains vital especially when other treatment modalities cannot be implemented as in our case.

Conclusion: Gastric volvulus is a rare condition with a mortality rate and require emergent surgery. This case highlights the importance of considering the presence of hiatal hernia in patients with similar presentations.

P58.

“Black Esophagus” or Acute Esophageal Necrosis: A Rare Complication of Diabetic Ketoacidosis.

Case Presentation: A 65-year-old male presented to the hospital with altered mental status and agitation. He had blood glucose of 989, positive serum acetones, anion gap of 30, consistent with DKA and was started on insulin drip. On day 1, he developed coffee ground emesis and melena, with hemoglobin drop from 10.5 to 7.9. Emergent esophagogastroduodenoscopy(EGD) showed circumferential black necrotic mucus in the cervical esophagus. Consequently, the scope was withdrawn for fear of perforation, and biopsies were deferred. He was kept nil-per-os(NPO), was placed on nasogastric(NG) suction and intravenous proton pump inhibitors(PPI). His DKA resolved and he was weaned off the insulin drip. Repeat EGD three days later, showed remarkable improvement with only patchy areas of residual necrosis and diffuse ulceration, without any stricture or stenosis. No history of caustic ingestion was documented.

Conclusions-Implications: Our case illustrates AEN in the setting of DKA. A history of diabetes mellitus(24%), malignancy(20%), hypertension(20%), alcohol abuse(10%) and coronary artery disease(8%) places patients at risk of developing AEN. Clinically, AEN can present with upper gastrointestinal bleeding(UGB), epigastric pain, dysphagia, nausea and vomiting. Management of this condition comprises of treating the underlying etiology, maintaining hemodynamic stability, NPO, intravenous ppi, fluoroscopically guided NG tube placement and blood transfusions as necessary. Additionally, emergent esophagogastroduodenoscopy or endoscopic retrograde cholangiopancreatography(ERCP) may be necessary. The mortality of AEN has been quoted to range from 10% to 75%,

Conclusion: Gastric volvulus is a rare entity with variable, non-specific clinical presentations which requires a high level of suspicion for radiologic diagnosis. Acute cases have a high mortality rate and require emergent surgery. This case highlights the value of autopsy in the diagnosis of unsuspected cases of gastric volvulus when death occurs prior to surgical intervention.
P59. Myroides – A New player causing Cellulitis and Septic Shock
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Introduction and Objective: Myroides spp. previously known as Flavobacterium is a gram negative aerobic bacillus found in soil and water. A handful of cases of opportunistic infections in immunocompromised patients have been reported since its classification in 1923. We present a case of a male with alcoholic cirrhosis and bilateral lower extremity cellulitis who developed septic shock due to Myroides spp.

Case Presentation: Patient is a 68 year old male who was transferred to our hospital with a diagnosis of sepsis. His past medical history was relevant for alcoholic cirrhosis, CHF and chronic liver and kidney disease. He was found for the ground on an unknown amount of time covered in his own feces and urine. Upon transfer to our ER he was found to be disheveled and disoriented. He admitted to drinking alcohol but was unable to quantify the amount. Vital signs included BP 93/38 mmHg, HR 132 bpm, RR 21 and a temperature of 37.2° C. His physical exam revealed a distended abdomen and severe cellulitis of bilateral lower extremities with multiple draining ulcers. Patient also had a 1.5cm left gluteal ulcer draining purulent material. Laboratory studies were significant for a WBC count of 11.3k with 84% neutrophils and a creatinine of 2.8. On presentation, the patient met criteria for septic shock and he was started on aggressive fluid resuscitation and empiric antibiotic therapy with Piperacillin/Tazobactam and Vancomycin. He was admitted to the ICU and started on norepinephrine due to continuing hypodynamic instability. His clinical status continued to deteriorate despite a modification in therapy and a high index of suspicion for this physically debilitating disease to aid in prompt diagnosis.

Conclusions-Implications: This case illustrates a systematic work up of rhabdomyolysis in the presence of peripheral eosinophilia. After biopsy demonstrated eosinophilic infiltrates in the muscle. We describe the case of a young patient with severe rhabdomyolysis without other organ involvement. Clinicians should maintain a high index of suspicion for this physically debilitating disease to aid in prompt diagnosis.

P63. Sporadic renal hemangioblastoma:
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Introduction and Objective: Hemangioblastomas are uncommon slowly growing, highly vascularized circumscribed tumors. They occur sporadically or as a component of Von Hippel Lindau disease.

Case Presentation: A 78 year old woman, while undergoing a follow-up abdominal CT scan for a recently resected low risk duodenal Gastrointestinal stromal tumor (GIST), was found to have a 3.2 cm mass in the left kidney, without interval change since a study performed 13 months before. Ultrasound revealed a vascular...
solid mass in the superior pole of the kidney “concerning for malignancy”. The patient underwent a radical nephrectomy. Gross examination revealed a circumscribed, solid, red mass, measuring 3 x 3 x 2.5 cm. Pathology showed a circumscribed encapsulated neoplasm, composed of numerous small blood vessels intermingled with stromal cells with variable amounts of cytoplasm, some showing fine vacuolation. The neoplasm showed alternating areas of hyper- and hypocellularity, as well as hemosiderin deposits and foci of extramedullary hematopoiesis. Mitotic figures were rare. The neoplastic cells showed immunoreactivity for inhibin and S-100, and were negative for AE1/AE3, EMA, HMB-45 and Melan A. CD34 x 3 x 2.5 cm. Pathology showed a circumscribed encapsulated neoplasm, composed of numerous small blood vessels intermingled with stromal cells with variable amounts of cytoplasm, some showing fine vacuolation. The neoplasm showed alternating areas of hyper- and hypocellularity, as well as hemosiderin deposits and foci of extramedullary hematopoiesis. Mitotic figures were rare. The neoplastic cells showed immunoreactivity for inhibin and S-100, and were negative for AE1/AE3, EMA, HMB-45 and Melan A. CD34

Results: There was no reduction in the number of patients mimic patients who received tPA in group 1 and group 2, were seizures/ post ictal 10%, anxiety 8%, conversion/ dissociation 6%, and 7% respectively. There was no statistical difference in the implementation of the new protocol.

Methods: We performed a retrospective chart review of patients who presented to Cleveland Clinic Florida with a brain attack, the year before the change of protocol (May 2013 to April 2014) and one year after the change of protocol (May 2014 to April 2015), group 1 and group 2 respectively. We studied the frequency of stroke mimics and the frequency with which tPA was given to them, before and after implementation of the new protocol.

Conclusions: Alteration of mental status due to possible trazodone overdose diagnosed as SLE cerebritis. Kairavee Dave, MD; Vivek Choksi, MD; Osman Perez, DO; Livakya Concepcion, MD; San Htoo, MD; Thu Thu Aung, MD; Aventura Hospital and Medical Center, Aventura, Florida. Introduction and Objective: Systemic Lupus Erythematosus (SLE) is a chronic autoimmune inflammatory condition with a spectrum of clinical presentations. The differential diagnosis includes various other autoimmune, hematologic, psychiatric and infectious etiologies. We present case of a 59-year-old female previously diagnosed with bipolar and anxiety disorders presenting with altered mental status (AMS) who was finally diagnosed with SLE cerebritis. Case Presentation: A 59-year-old female previously diagnosed with bipolar disorder, anxiety, hypertension and breast cancer (s/p lumpectomy with adjuvant chemotherapy done) was suspected because an empty bottle of trazodone was found beside her. We were unable to obtain appropriate history as the patient had AMS and her husband (only close relative) had dementia. Extensive workup was done and most of the differential diagnoses were ruled out. Patient was found to have elevated gamma-globulin, which initiated a rheumatological workup. The patient had elevated ANA and anti-ds DNA antibodies. During the hospitalization, she was found to meet SLICC criteria for SLE. Lumbar puncture was done and CSF analysis revealed lymphocytic pleocytosis, elevated proteins with aspecific and likely non-infectious process. MRI spectroscopy of brain revealed reversal of normal Hunter’s angle with elevated choline to creatine ratio within the white matter and a lactate peak, which may be present in neuropsychiatric lupus. Patient was diagnosed with suspected lupus cerebritis with neuropsychiatric lupus. Subsequently, a kidney biopsy was done that showed IV diffuse proliferative glomerulonephritis with fibrillary component likely but differential diagnoses of ANM before diagnosing patients with lupus nephritis, which includes treatment for lupus nephritis, which includes treatment for neuropsychiatric lupus with high dose pulse methylprednisolone 1 gram/day for 3 days. It brought down the anti-ds DNA titers from 81 to 15 IU/ml. Clinically, the patient started improving gradually. She was given one dose of cyclophosphamide and discharged on treatment with cyclophosphamide and prednisone with outpatient rheumatology follow-up.

Conclusions-Implications: This case stresses the importance of ruling out differential diagnoses of AMS before diagnosing patients with a psychiatric disorder. On the other hand, all patients with SLE might not meet the criteria for diagnosis when they start having symptoms, hence it is critically important to obtain appropriate history and physical examination to support the diagnosis if possible. It is unclear whether we can relate our patient’s AMS to the trazodone. Patient’s history was unremarkable with the exception of a few days of flu-like symptoms two weeks prior to presentation. He reported to no alcohol or drug use. He also denied any significant family medical history. On admission, patient was afibrile and hemodynamically stable. His initial neurological exam was normal except for a wide-based unsteady gait. An initial CT Brain revealed no acute intracranial abnormalities. Within 12 hours of admission, the patient neurologically worsened with severe dysmetria, dysdakinesia, abnormal heel-shin test and severe truncal ataxia. An emergent MRI Brain revealed abnormal signal intensities within dentate nucleus of cerebellum bilaterally and inferior cerebellar peduncles, extending from the inferior aspect of the mid-brain and into the medulla. CSF analysis was unremarkable with no oligoclonal bands. Nutritional deficiencies, heavy metal toxicities and hematological malignancies were ruled out. However, Mycoplasma pneumoniae infection was determined to be the likely organism. Other neuroinfectious causes were also ruled out. Patient was diagnosed with ADEM in the setting of Mycoplasma infection. Patient was started on pulse dose steroids and azithromycin. A significant reversal of symptoms was observed during his seven days of hospitalization.

Conclusions-Implications: Diagnosis of ADEM was established in the absence of CSF oligoclonal bands, presence of MRI findings consistent with grey and white matter demyelination, and rapid reversal of symptoms with antibiotic and steroid therapy. Unlike viral encephalitis, ADEM does not have CNS invasion by microorganisms; and unlike Multiple Sclerosis, ADEM is a monophasic reversible illness. Mycoplasma pneumoniae in some rare cases has been associated with ADEM. While these cases have been described in children and adolescents, this is a unique case of Mycoplasma pneumoniae-ADEM in an Adult. It is vital for physicians to consider variants of acute demyelinating CNS pathologies, such as ADEM, as a possible etiology that can present with focal or diffuse neurological symptoms.
Case presentation: 43-year-old woman with a previous diagnosis of MS presented to the ED with sudden onset of painless vision loss in her right eye for 3 weeks and blured vision in her left eye for 1 day. The visual symptoms were accompanied by transient abdominal fullness and tinnitus in the right ear. A fluorescein angiogram showed BRAO of the central and intertemporal region of right eye and BRAO in the intertemporal region with focal vascuclar changes on left eye and minimal retinal capillary closure. The patient also reported episodes of confusion like forgetting passwords and getting lost while driving home over the past year. She was diagnosed with MS 3 years ago. MRI at that time revealed abnormal FLAIR intensity in the supratentorial white matter and corpus callosum which led to the diagnosis of MS and initiation of glatiramer acetate. CBF analysis was essentially negative with no oligoclonal bands and a normal IgG index.

On current presentation, neurological exam revealed visual field defects at superior temporal, inferior temporal and superior nasal quadrants of the right eye and inferior temporal quadrant of the left eye. Brain MRI showed focal areas of T2FLAIR hypointensity within frontal subcortical white matter as well as a lesion of non-specific intensity within the corpus callosum. MRA was negative. An extensive workup for vasculitis was negative. Given the clinical scenario of bilateral BRAO with subacute encephalopathy, transient inner ear symptoms and MRI findings in the corpus callosum, the diagnosis of Susa’s syndrome was considered. The patient was started on 1mg tomidol and 0.4mg/kg of IVG for 3 days and maintenance therapy with mycophenolate and methylprednisolone 4mg/kg for 3 months. She reported dramatic improvement in her vision in both eyes 4 days post discharge. Repeat fluorescein angiogram showed resolution of the BRAO in both eyes.

Conclusions-Implications: Susa’s syndrome is an autoimmune endotheliopathy, which can present with varying degrees of the clinical triad of encephalopathy, BRAO and sensorineural hearing loss. The syndrome can mimic MS in clinical presentation and MRI findings and a high index of suspicion is required to make an accurate diagnosis. Prompt recognition and treatment can significantly improve patient outcomes and minimize long term neurological sequelae.

P70.

A Brain Attack protocol reducing length of hospitalization in stroke patients at the Cleveland Clinic Florida.

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Introduction and Objective: Rapid administration of intravenous thrombolysis in patients with acute ischemic stroke leads to great clinical outcome. American Heart Association reduced the goal of door to needle time from 60 minutes to 30 minutes, limited for the length of hospitalization as a clinical outcome marker in stroke patients. The objective of this study is to determine the impact of a new Brain Attack (BrA) protocol on the length of hospitalization and discharge plan.

Methods: Single center retrospective chart review of our BrA database before and after a new BrA protocol implemented on April 2014 in our institution. The major difference in the brain attack protocol was the performance of head computed tomography (CT) scanning before neurological assessment as compared to after. We assessed demographic data, length of hospitalization (LOH) and discharge plan from May 2013 through April 2014 (Pre-BrA-group) as compared to May 2014 through April 2015 (Post-BrA-group).

Results: 52 patients in the Pre-BrA-group and 34 in the Post-BrA-group were included. Both groups were similar in age, sex and risk factors. Mean NIHSS was 7.9 and 7.8 in the Pre-BrA and Post-BrA groups, respectively. Mean LOH for the Pre-BrA-group was 6.9 days with standard deviation (SD) +/- 8.6 and in the Post-BrA-group was 4.8 SD/-3.3 days. Stroke patients walking through emergency experienced a 30% reduction in the mean LOH after the new BRA protocol. The mean LOH in stroke patients who received IV IPIA in the Pre-BrA group was 5.6 compare to 6.9 in the Post-BrA group. Patient not receiving IV IPIA had a 49% reduction after the new BRA protocol. 61% and 52% of the patients were discharge home in the Pre-BrA and Post-BrA groups, respectively.

Conclusions-Implications: This new brain attack protocol demonstrated a reduction in the length of hospitalization of the stroke patients.

P71.

Same day urogynecologic surgery: rates of acute postoperative urinary retention when using spinal versus general anesthesia.

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Introduction and Objective: Rates of urinary retention after pelvic floor surgery are quoted at 24% based on inpatient surgery data. However, there is paucity of data regarding postoperative urinary retention (PUR) for outpatient pelvic organ prolapse (POP) surgery and the effects of spinal anesthesia. We hypothesized that spinal anesthesia was going to be a risk factor for developing PUR. Our objective was to compare postoperative urinary retention (PUR) rates for same day vaginal pelvic floor surgeries when using spinal versus general anesthesia. Our secondary outcome was to identify potential risk factors for PUR.

Methods: This was a retrospective review of outpatient POP surgery vaginal procedures performed in 2014. A standardized voiding trial was performed by backfilling the bladder with 300 ml of saline. A successful trial was if the patient voided two-thirds of the total volume instilled, confirmed by bladder scanner. Our primary outcome was to compare PUR requiring discharge with a Foley catheter between spinal and general anesthesia. Multivariate logistic regression was performed for variables with significance at p<0.1 at the univariate level.

Results: A total of 177 procedures were included, 126 with general and 51 with spinal anesthesia. The overall PUR rate was 49.3%. For the primary outcome, there was a statistically significant higher rate of PUR with spinal anesthesia (62.2%) compared to general anesthesia (43.7%), p=0.0058. However, multivariate logistic regression demonstrated that age <55 years (adjusted odds ratio [OR] 3.73; 95% confidence interval [CI], 1.31–11.7), diabetes (adjusted OR 4.18, 95% CI 1.04–21.67), and having a cystocele ≥ stage two (adjusted OR 4.23, 95%CI 1.89–10) were the only risk factors for developing PUR.

Conclusions-Implications: Acute urinary retention after outpatient vaginal pelvic floor surgery can vary by procedure, but overall is 48.9%. Spinal anesthesia does not contribute to PUR but rates are higher in those women that are younger than 55 years of age, those who have a cystocele ≥ stage two preoperatively, and those with a history of diabetes.
POSTER ABSTRACTS

P73.

Resolution of Rectal Prolapse by Vaginal Reconstruction
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Introduction and Objective: Rectal prolapse is a disorder of the pelvic floor in which the layers of the rectum mucosa protrude outwards through the anus. Surgical repair is the mainstay of treatment. Options include intra-abdominal procedures such as resection, perineal procedures, and Altemier perineal rectosigmoidectomy. Rectal and vaginal prolapse can often co-exist. However to our knowledge, there are no cases of rectal prolapse resolved by the repair of a compressive enterocele abutting the anterior rectal wall through a vaginal approach. We present a novel case of rectal prolapse that resolved by correction of the vaginal defect.

Case Presentation: A 53 year old female with prior history of abdominal hysterectomy, presented to the Urogynecology clinic with complaints of vaginal bulge, urge urinary incontinence and rectal bulge on straining with no fecal incontinence for several years. On physical examination, she was found to have stage 2 anterior, posterior and apical vaginal prolapse and reducible rectal prolapse. Colorectal Surgery (CRS) evaluation was requested, which presented a minimal anterior mucosal prolapse on Valsalva with no full thickness prolapse. MRI defecogram was performed, which demonstrated a large rectocele,enterocele and small bowel prolapsing between the rectum and vagina during the evacuation phase with no rectal prolapse. The decision to proceed with vaginopexy surgery without concomitant rectal prolapse repair was made, as the patient had no fecal incontinence and the degree of rectal prolapse was minimal. On the day of the surgery, 2 months later, she presented with 2 cm full thickness rectal prolapse with no incontinence. CRS was consulted again, but unavailable. The patient wished to proceed with her planned surgery but felt that correcting the anterior rectocele and enterocele, thereby eliminating the descent of the bowel on the anterior aspect of the rectal prolapse, could prevent or delay rectal prolapse. She then underwent a sacrospinous ligament anastomosis and an enterocoele repair. Moschowitz culdoplasty and posterior colporrhaphy. She had an uneventful postoperative course and noted resolution of both vaginal and rectal prolapse. At 54 weeks, she continues without any complaints of rectal prolapse which was confirmed on physical examination.

Conclusions-Implications: Usually, the choice of surgical approach is tailored to each individual based on anatomy, age, co-morbidity and patient factors. Correcting both vaginal and rectal prolapse at the same time with a minimally invasive approach is an advantage to the patient. Restoring the apical, anterior, posterior vaginal wall anatomy and an enterocoele repair through the vaginal route caused resolution of the rectal prolapse. Further research is needed as to whether rectal prolapse caused by anterior rectal compression needs an additional procedure or repair of the vaginal prolapse and enterocoele alone will suffice.

P74.

Dermatofibrosarcoma protuberonis with coexisting fibrosarcomatous and giant cell fibroblastoma-like components in the breast of a woman
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Introduction and Objective: Dermatofibrosarcoma protuberonis (DFSP) is a rare, locally aggressive tumor that constitutes 1% of soft tissue sarcomas. Metastases are rare. Fibrosarcomatous changes have been identified in up to 20% of all cases of DFSP. When these changes make up >5% of the tumor, a diagnosis of fibrosarcomatous DFSP (DFSP-FS) is made. Multiple studies report more aggressive behavior, higher local recurrence rate and increased risk of distant metastases in DFSP-FS. However, there is no full consensus on the clinical behavior of DFSP-FS. In addition, focal areas of GCF-like changes were seen in this case. The relationship between GCF, a tumor seen mostly in children, and DFSP has been suspected since the description of numerous cases of hybrid lesions. In addition, GCF and DFSP have similar clinical behaviors with male predominance, truncal distribution and high local recurrence, and share immunohistochemical and molecular features such as positivity for CD34 and the same t(17;22) translocation.

Case Presentation: A 53 yo female presented with a 10 cm left breast mass. The mass was slowly growing, locally aggressive tumor that was noted 2 months prior. On exam, the mass measured approximately 5 cm and was associated with mild tenderness. The patient had no metastatic malignancies. On further review of the lesion, which qualifies for a diagnosis of DFSP-FS. The patient was referred for additional studies and underwent a biopsy. Histopathological examination revealed a spindle-cell neoplasm with areas of delicate fibroblast-like cells arranged in a storiform pattern, as seen in classic DFSP. These areas were strongly and diffusely positive for CD34. However, distributed throughout the tumor, there were multiple fibrosarcomatous areas showing fascicular architecture, hypercellularity, increased mitotic rate, and near-complete loss of CD34 expression. These fibrosarcomatous areas constituted approximately 70% of the lesion. In addition, a GCF-like component consisting of large, atypical multinucleated cells, was seen. The lesion was focally positive. A re-excision of the area around the mass was performed resulting in negative margins.

Conclusions-Implications: While DFSP-FS usually presents in the trunk and extremities, breast involvement has rarely been reported. In this case, fibrosarcomatous changes were identified in a large percentage of the lesion, which qualifies for a diagnosis of DFSP-FS. Multiple studies report more aggressive behavior, higher local recurrence rate and increased risk of distant metastases in DFSP-FS. However, there is no full consensus on the clinical behavior of DFSP-FS. These areas were strongly and diffusely positive for CD34 and the same t(17;22) translocation. Although previous cases of DFSP-FS with a GCF component have been reported in the literature, this was the first instance of a DFSP-FS with a GCF-like component in the breast of an adult woman. This finding brings attention to the breast as a possible site for DFSP-FS formation and further supports the notion that GCF and DFSP may be variants of the same entity.

P75.

Inflammatory Myofibroblastic Tumor of the Liver: a Mimicker of Malignancy
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Introduction and Objective: Inflammatory Myofibroblastic Tumor (IMT) is a rare mesenchymal neoplasm which is usually diagnosed in the pediatric age group. The etiology of IMTs is unknown but these are thought to arise from activated myofibroblasts. Although most IMTs are benign, up to 20% are malignant and can cause significant morbidity and mortality. The clinical behavior of IMT is variable and depends on its location, size, and histologic features. The most common sites of occurrence are the lung, peritoneum, and soft tissues. IMT of the liver is exceedingly rare and only a few cases have been reported.

Case Presentation: A 66-year old woman presented to the emergency room with a 3-day history of vaginal bleeding. Physical examination revealed a 3 cm distally located vaginal tumor, and a 5 cm left breast tumor. Biopsies from both masses revealed identical characteristics. The patient was referred to the Medical Oncology and Robotic Surgery, Coconut Creek, Florida.

Conclusions-Implications: Vaginal or breast IMT are rare malignancies accounting for 3% of tumors of the female genital tract. These tumors are locally invasive and can rarely metastasize through the hematogenous route. To our knowledge, breast cancer occurring as a metastasis of a primary vaginal cancer has never been reported. Treatment for this type of malignancy is very challenging, as there is no standard of therapy, however our course of treatment generated a favorable outcome for our patient. We present a novel and unique case of vaginal cancer metastasizing to the breast.

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Seeing is Believing: Breast Metastasis from Vaginal Cancer
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Introduction and Objective: Vaginal carcinosarcomas are rare malignancies accounting for 3% of tumors of the female genital tract. These tumors are locally invasive and can rarely metastasize through the hematogenous route. To our knowledge, breast cancer occurring as a metastasis of a primary vaginal cancer has never been reported. Treatment for this type of malignancy is very challenging, as there is no standard of therapy, however our course of treatment generated a favorable outcome for our patient. We present a novel and unique case of vaginal cancer metastasizing to the breast.

Case Presentation: A 66-year old woman presented to the emergency room with a 3-day history of vaginal bleeding. Physical examination revealed a 3 cm distally located vaginal tumor, and a 5 cm left breast tumor. Biopsies from both masses revealed identical characteristics. The patient was referred to the Medical Oncology and Robotic Surgery, Coconut Creek, Florida.
diagnosis of primary vaginal carcinoma stage IVB with metastasis to the breast. She was then treated with 6 cycles of Carboplatin and Paclitaxel based chemotherapy. Carboplatin was favored over Cisplatin in light of the patient's comorbidities. This was followed by 7 weeks of low dose Cis-platinum chemoradiation to the pelvis. Radiation to the breast was not performed, as the vagina was the primary. She was carefully followed every 3 months and has maintained remission.

Conclusions: Immunohistochemistry is an important tool for predicting treatment outcomes. This knowledge was used to judge the benefit of immunohistochemistry to definitively follicular dendritic cell sarcoma.

P78. Bleeding to death: When comfort care requires a rapid response
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Introduction and objective: The aims of palliative care are to focus on symptom control, improve a patient’s quality of life, and be present during treatments aimed at curing cancers to help patients achieve their goals for end of life. End stage head and neck cancers have a propensity to erode into surrounding structures, including major vessels such as the carotid artery. When patients present with impending or actual carotid blow-out bleeding, there is an emergent decision to either proceed to surgery or to control anxiety during terminal exanguination.

Case Presentation: A 63y old male patient presented with shortness of breath, stridor and dysphagia secondary to a 6.5cm x 7.9cm x 5.6cm laryngeal tumor that had eroded through the skin, was compressing the trachea and esophagus, and abutting the external carotid artery on CT angiography of the neck. Following emergency tracheostomy and percutaneous endoscopic gastrostomy tube placement the patient was being stabilized for transfer home. He developed large volume, pulsating blood loss externally from the neck mass, which was initially controlled with pressure application and packing. His hemoglobin fell by 2.4g/dL over six hours requiring an emergent decision to proceed to carotid artery coil embolization of the right external carotid artery. The next day he proceeded to have a massive carotid artery blow-out performed since the morphology of the tumors demonstrated negative margins is challenging. In our patient, surgical removal was performed since the morphology of the tumors demonstrated negative margins, which were free of malignancy. Following surgery, the patient demonstrated an optimal response to a Carboplatin-Paclitaxel based chemotherapy regimen, which has anecdotally been tried for vaginal cancer. Cis-platinum chemoradiation, which has only been validated in a few case series for vaginal cancer, proved effective in this patient. These options are safe, efficacious, and should be considered when treating vaginal cancer. Large randomized control trials evaluating outcomes of different chemotherapy regimens should be undertaken. The role of chemoradiation for vaginal cancer should also be evaluated with larger studies.

P77. Follicular dendritic cell sarcoma presenting as subcutaneous masses in left chest wall
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Introduction and Objective: Follicular dendritic cell sarcoma (FDCS) is a rare neoplasm of follicular dendritic cells (FDC). Since FDCS was first described in 1986, approximately 150 cases have been reported worldwide. The disease usually involves the lymph nodes, especially those of the head and neck, mediastinal and axillary areas. Extramedullar sites are involved in almost one-third of the patients. The purpose of this report is to highlight the importance of using immunohistochemistry in the diagnosis of follicular dendritic cell sarcoma and avoid misdiagnosis, as many entities may have similar histologic features.

Case Presentation: The patient is an 84 year-old man who presented with unintentional weight loss of 10 pounds two years after first noticing a lump on his left chest, which he thought was associated with accidental trauma to the area. PET CT revealed two large mobile masses along the left chest wall as well as left axillary lymphadenopathy. One of the axillary lymph nodes was biopsied at an outside institution for diagnosis. The patient underwent excision of the large chest wall masses and remaining enlarged axillary lymph nodes. A diagnosis of FDCS was made.

Conclusions: Immunohistochemistry is a helpful diagnostic tool for follicular dendritic cell sarcoma. It is important for pathologists to use immunohistochemistry to definitively follicular dendritic cell sarcoma.

P80. Are Autolytic-Type Changes in Surgically Removed Gallbladder Specimens Related to Fixation Delay? A.M. Rywlin, MD1, John Alexis MD1,2,1A.M. Rywlin, MD Department of Pathology, Mount Sinai Medical Center, Miami Beach, FL
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Introduction and Objective: Specimen autolysis, a form of self-degradation with characteristic histological features, can interfere with pathologic evaluation and diagnosis. The importance of adequate specimen fixation has been previously established. In our institution, we routinely use autolytic-type changes in some surgically removed gallbladders. This study was undertaken to determine whether such changes are related to delay in fixation, and therefore represent an in-vitro (vs an in-vivo) process.

Case Presentation: This study is a case control study of 100 gallbladder specimens. Times of removal and fixation were recorded for each specimen, and the total time to fixation was calculated. Specimens were histologically assessed for the presence of autolytic-type changes. The sample was divided into two cohorts, one consisting of specimens with autolytic changes and one of specimens without. The group with autolytic-type changes had 44 specimens and a mean time to fixation of 12 hours, and the group without autolytic-type changes had 56 specimens and a mean time to fixation of 8 hours. A one tailed T-test statistical analysis was run, with the null hypothesis being that there was no difference between the mean time to fixation between the cohorts.

Conclusions: Statistical analysis showed with 93% confidence that there is a statistically significant difference between the mean time to fixation of the two cohorts (p value: 0.067). It is therefore likely there is a correlation between autolytic-type changes and longer time to fixation. This study is limited by sample size and a more powerful study may yield more definitive results.

P81. Are Autolytic-Type Changes in Surgically Removed Gallbladder Specimens Related to Fixation Delay? Gabriel Sanchez MD1, John Alexis MD1,2,1A.M. Rywlin, MD Department of Pathology, Mount Sinai Medical Center, Miami Beach, FL
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P81.  
**Toxoplasmosis: Unusual initial presentation of Acquired Immune Deficiency Syndrome**  
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**Introduction and Objective:** Infections of the Central Nervous System (CNS) in patients with human immunodeficiency virus (HIV) are diagnostically challenging due to non-specific presentations and similar findings in cerebrospinal fluid analysis and imaging. Therefore, the diagnosis must be based on a combination of high levels of clinical suspicion with compatible clinical presentations, radiographic findings, and understanding the role of HIV causing such opportunistic infections. We present the case of a patient, with initial non-specific neurologic symptomatology and radiologic presentations, who was later determined to have CNS Toxoplasmosis complicating a newly diagnosed HIV status.

**Case Presentation:** A 63-year-old Hispanic female patient with a known history of hypertension and hyperlipidemia presented to our emergency department complaining of an hour-long progressive asymmetric left weakness, left-sided hemiplegia and expressive aphasia. Initial neurological evaluation revealed the patient to have involuntary movements of the left upper extremity with bilateral eyelid fluttering and averse gaze to the left along with urinary and fecal incontinence. Computed tomography (CT) identified an area of decreased density comprising the left temporal and parietal lobes, which seemed to be consistent with an evolving non-hemorrhagic infarct. Subsequent CT angiography of the head and neck was performed showing no intracranial aneurysms or arterial occlusions. Tissue plasminogen activator (tPA) was not administered due to the suspected seizure-like presentation as well as the already evident ischemic stroke in plain CT. Magnetic resonance imaging (MRI) with and without contrast was ordered which revealed a 2.2 cm left hemisphere lesion. Radiologists’ initial impression was consistent with glioblastoma multiforme which was believed to be compatible with glioblastoma multiforme.

**Tissue diagnosis:** Four hours since admission; however, the presence of leukopenia and increased protein-albumin gap prompted HIV testing, which was positive. Patient was found to have a complex medical history including diabetes and severe peripheral vascular disease which was admitted to the hospital with a non-healing ulcer of the left foot. Six months prior, the patient had undergone angioplasty and stenting of the left superficial femoral artery. On physical examination, a 3.5 x 3 cm ulcer with an eschar was noted on the plantar aspect of left foot below the first metatarsal head with bluish discoloration of the left first three digits. Left posterior tibial and dorsalis pedis pulses were non-palpable. CT Angio Runoff showed occlusion of the long segment stent involving the entire left superficial femoral artery and supra-articular popliteal artery with distal reconstitution. Patient underwent emergent open exploration of the left femoral artery. He was found to have a completely occluded stent, freely floating with pus and thrombus and inflammatory encasement of the distal common femoral artery extending to the superficial femoral artery. An arterial stump to below knee popliteal artery bypass was performed with removal of the intravascular stent. Surgical cultures from intravascular and perivascular purulence along with the metal stent all grew coagulase negative staphylococcus specified as a pan-sensitive S. lugdunensis. The patient was started on IV Oxacillin to complete a 4-week course. Subsequent blood cultures did not show any growth. Patient’s condition improved and he was sent to rehabilitation for further recovery.

**Conclusions-Implications:** Staphylococcus lugdunensis has been reported as a cause of skin and soft tissue infections, prosthetic valve endocarditis and prosthetic device related infections, however, infections of vascular prosthesis are relatively uncommon. It is known to have the ability to form biofilms, which increases its affinity for prosthetic devices. Only a handful of cases have been reported of endovascular stent infection due to Staphylococcus lugdunensis. The recognition of vascular prosthetic infection can be challenging as the clinical presentation is often asymptomatic but may include a draining wound sinus, peri-graft exudate or a pseudo-aneurysm at the anastomotic site. Fortunately, S. lugdunensis is generally susceptible to most antimicrobial agents. Due to the nature of this pathogen, clinicians must have high suspicion, in order to promptly and adequately initiate treatment to prevent significant sequelae.

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**Epstein-Barr Virus-associated Diffuse Large B-cell Lymphoma in a Patient with Complete DiGeorge Syndrome status-post Umbilical Cord Blood Transplantation**  
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**Introduction and Objective:** Patients with primary immunodeficiencies are at increased risk for malignancies, including hematologic ones; however, there are few reports of malignancies associated with DiGeorge syndrome. We herein present a rare case of EBV-positive, post-transplant lymphoproliferative disorder, diffuse large B cell lymphoma in a patient with complete DiGeorge syndrome.

**Case Presentation:** The patient is a 16-year old boy with a history of complete DiGeorge syndrome who was diagnosed shortly after birth and received an unrelated umbilical cord blood transplant at approximately six weeks of age. Eight years post-transplant, the patient presented with fever, dry cough, loose stools, hypocalcemia, cerebral and axillary lymphadenopathy. Splenomegaly was noted. An excisional biopsy of a left axillary lymph node showed an Epstein-Barr virus (EBV) related lymphoproliferative disorder. Rituximab infusions were started; however, the patient did not respond to treatment. A few months later, the patient returned complaining of fever, fatigue, and decreased appetite. A CT scan showed new retroperitoneal, paracolic, and porta hepatitis lymphadenopathy as well as worsening splenomegaly. A diagnosis of EBV-positive, post-transplant lymphoproliferative disorder, diffuse large B cell lymphoma (DLBCL) was made. Chemotherapy with methotrexate and Ara-C was started and the patient went into remission.

**Conclusions-Implications:** The patient in this case has complete DiGeorge syndrome, seen in only 1% of DiGeorge patients. Patients with complete DiGeorge syndrome are athymic and extremely susceptible to life threatening infections. The syndrome is usually lethal in infancy. The unrelated cord blood transplant was done with the purpose of transferring mature T-cells from the donor to the recipient. However; although initial chimerism was achieved, fewer than 100 T cells/mm3 were present 2 years after transplantation. Furthermore, when patients with complete DiGeorge anomaly receive hematopoietic transplants from EBV-seronegative donors, T-cells with receptors effective against EBV likely are not present in the initial inoculum, making these patients susceptible to EBV infections and EBV-driven lymphomas.
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