31th Annual LSU School of Medicine Department of Obstetrics & Gynecology



Resident and Fellow Research Day Friday, May 17, 2019

Human Development Center 411 S. Prieur St, 1st Floor Auditorium New Orleans, LA

Keynote Speaker:

Haywood L. Brown M.D.

Vice President of Institutional Equity-Diversity, Inclusion and Equal Opportunity at the University of South Florida Associate Dean of Diversity and Professor of Obstetrics and Gynecology-Morsani College of Medicine at the University of South Florida

31th Annual LSU School of Medicine Department of Obstetrics & Gynecology Resident and Fellow Research Day Friday, May 17, 2019



8:00-8:05am Welcome & Introduction of Guest Speaker

Lisa Peacock, MD

Chairman, Department of Obstetrics and Gynecology Louisiana State University Health Sciences Center

8:05-9:00am The Fourth Trimester: Redefining Postpartum Care

Haywood Brown, MD

Immediate Past President, ACOG 2017-2018

Vice President for Institutional Equity

Associate Dean, Morsani College of Medicine University of South Florida, Tampa, Florida

9:00-9:10am Break

9:10-9:35am Three and Four-Dimensional Transabdominal Ultrasounds Can

Accurately Replace Two-Dimensional Transvaginal Ultrasound in the Cervical Measurement of Pregnant Women at High Risk for

Preterm Birth

Barbara Kate Neuhoff, MD, House Officer III, LSU-New Orleans

Advisor: Ann Chau, MD

Discussant: Robert Maupin, MD

9:35-10:00am Efficacy of the Levonorgestrel Intra-Uterine Device (IUD) in the

Treatment of Endometrial Hyperplasia and Adenocarcinoma

Jahan Jadauji, MD, House Officer III, LSU-New Orleans

Advisor: Holly Provost, MD Discussant: Navya Nair, MD

10:00-10:25am What Factors Influenced the Success or Failure of Cerclage

Placement in Pregnant Women at High Risk for Preterm Birth?

Jamaan Kenner, MD, House Officer III, LSU-New Orleans

Advisor: Ann Chau, MD Discussant: Cliff Moore, MD 10:25-10:50am Impact of Resident Led Didactics on OBGYN Clerkship Shelf Scores and Student Satisfaction Valerie Valero, MD, House Officer III, LSU-New Orleans Advisor: La'Nasha Tanner, MD Discussant: May Thomassee, MD 10:50-11:00am **Break** 11:00-11:25am Does the Presence of a Fetal Abdominal Circumference Less Than the 10th Percentile Alone Have a Significant Adverse Effect on **Perinatal Morbidity?** Samantha Prats, MD, House Officer III, LSU-New Orleans Advisor: Ann Chau, MD Discussant: Joseph Miller, MD 11:25-11:50am Effect of Simulation of Shoulder Dystocia and Documentation on **Obstetrics and Gynecology Residents' Delivery Notes** Diana Shustarovich, MD, House Officer II, LSU-New Orleans Advisor: Stacey Scheib, MD Discussant: Nicole Freehill, MD 11:50-12:15pm Survivability of PPROM at Less Than 23 Weeks After Hospital Readmission for Intervention Felicia LeMoine, MD, House Officer III, LSU-Baton Rouge Advisor: Cliff Moore, MD Discussant: Christy Mumphrey, MD 12:15-1:00pm Lunch 1:00-1:10pm **Group Picture Poster Viewings and Presentations** 1:15-1:45pm 1:45-2:00pm **Award Presentations and Final Remarks**



Haywood L. Brown, M.D Immediate Past President, ACOG 2017-2018 Vice President for Institutional Equity Associate Dean, Morsani College of Medicine University of South Florida Tampa, Florida

Dr. Haywood L. Brown is a native of North Carolina. He received his undergraduate degree from North Carolina Agricultural and Technical State University in Greensboro and his Medical Degree from Wake Forest University School of Medicine in Winston-Salem, North Carolina. He completed his residency training in Obstetrics and Gynecology at the University of Tennessee Center for Health Sciences in Knoxville, Tennessee, followed by subspecialty fellowship training in Maternal and Fetal Medicine at Emory University School of Medicine/Grady Memorial Hospital in Atlanta, Georgia.

Dr. Brown has a distinguished career as an academic leader in education, clinical care and research for three decades. In 2002, Dr. Brown was named Professor and Chairman of the Department of Obstetrics and Gynecology at Duke University Medical Center in Durham, North Carolina; a position that he held for nearly 14 years. Most notable during his tenure as Chair, Dr. Brown established a Global Women's Health Program as a component of the Duke Global Health Institute.

Dr. Brown has served in numerous local and national leadership positions including the American College of Obstetricians and Gynecologists. In 2017-2018, Dr. Brown served as the 68th President of the American College of Obstetricians and Gynecologists. In addition, he has served in leadership as Chair of Council on Resident Education in Obstetrics and Gynecology (CREOG), the Board of Directors for the Society for Maternal Fetal Medicine and past President of SMFM. He is past President of the American Gynecological Obstetrical Society (AGOS). He has also served as a Director of the American Board of Obstetrics and Gynecology. Dr. Brown's leadership extends further and includes the NIH DC Initiative on Infant Mortality and the HSRA Perinatal and Patient Safety Collaboration. He is the Past President of the North Carolina Obstetrical and Gynecologic Society.

Dr. Brown is especially committed to the care of women at high risk for adverse pregnancy outcome, particularly those disadvantaged which includes disparity in maternal and infant mortality. His ACOG Presidency focused on disparity and women's health equity as well as redefining postpartum care.

In July 2018, Dr. Brown was named the Vice President for Institutional Equity at the University of South Florida and the Associate Dean in the Morsani College of Medicine at the University of South Florida in Tampa, Florida.

The Fourth Trimester: Redefining Postpartum Care

Learning Objectives:

- 1) Describe the essential elements relevant to postpartum counseling and education
- 2) Perform essential screening including for depression
- 3) Discuss a reproductive life plan and long term health implications for this with pregnancy complications

Three and Four-Dimensional Transabdominal Ultrasounds Can Accurately Replace Two-Dimensional Transvaginal Ultrasound in the Cervical Measurement of Pregnant Women at High Risk for Preterm Birth

B. Kate Neuhoff MD, Heather Barnes MS, Ann Chau MD, Joseph L. Hagan ScD, Joseph Miller MD

Department of Obstetrics and Gynecology Louisiana State University Health Sciences Center – New Orleans

Objective: Preterm delivery is a significant cause of perinatal morbidity and mortality in the United States, with preterm delivery rates at 9.6% in the US and 12.3% in Louisiana. Cervical shortening is associated with an increased risk of preterm birth. Thus, the evaluation and diagnosis of cervical shortening plays a critical role in the prediction and prevention of preterm delivery. Two dimensional (2D) transvaginal ultrasound (TV US) remains the gold standard of cervical measurement. However, 2D TV US is time consuming and uncomfortable for patients, and the procedure is costly due to equipment maintenance and sterilization. There is limited data comparing three dimensional (3D) transabdominal ultrasound (TA US) or four dimensional (4D) TA US to the gold standard. The objective of this project is to compare 2D, 3D, 4D TA US versus the 2D TV US in the cervical measurement of pregnant women at high-risk for preterm births.

Methods: This retrospective cohort study investigated the accuracy of the 2D, 3D, 4D TA US measurements of the distal functional closed cervical lengths (DFCL) in singleton pregnant women at high-risk for preterm birth when compared to the 2D TV US measurement taken at the same visit. Studied women had cervical measurements obtained with empty bladders at each two-week interval between 13-24 weeks of gestational. Each woman had one office visit in each interval, and 3 measurements of each imaging modality at each visit. The 2D TA cervical length was measured using penetration frequency with either Focus Frequency Composite (FFC) and/or Coded Excitation (CE). The 3D TA cervical length was measured using Multiplanar and Volume Contrast Imaging Acquisition (VCIA). The 4D TA cervical length was measured using live VCIA. The data was analyzed using linear regression and Pearson's correlation coefficient.

Results: 520 ultrasound appointments (169 singleton pregnancies) were reviewed from November 1, 2016 to December 30, 2018. Transabdominal 2D, 3D, and 4D ultrasounds within each 2-week timeframe were compared to the gold-standard transvaginal 2D ultrasound within that time frame. Pearson correlation coefficients for each imaging modality were >0.9, which suggests a strong positive correlation. Equations were generated to predict the equivalent 2D TV US measurement within each gestational age interval. R-squared values were between 0.87 and 0.97 for both 3D and 4D measurements within each gestational age interval. Excellent consistency was noted between measurements made within the same exam session. Adding BMI and fetal presentation to the regression model did not significantly alter the efficacy of 2D, 3D, 4D TACL in this prediction of 2D TV US (p>0.05).

Conclusions:

In our study, there was excellent correlation between the cervical length measurements by 3D TA US and 4D TA US when compared to the 2D TV US measurement in women at high risk for preterm birth. This suggests that 3D or 4D abdominal ultrasound may be used as an alternative to 2D transvaginal ultrasound for cervical measurements. Future work in this area is needed.

Efficacy of the Levonorgestrel Intrauterine Device (IUD) in the Treatment of Endometrial Hyperplasia and Adenocarcinoma

Jahan Jadauji MD MSc, Aubrey Schachter, Natasha Rezvani, Nia Thompson MD, Amelia

Jernigan MD, Holly Provost MD

Department of Obstetrics and Gynecology, Louisiana State University Health Sciences Center – New Orleans

Objective: The 52mg levonorgestrel intrauterine device (IUD) has been used for treatment in patients with endometrial hyperplasia and cancer, most routinely in the setting of fertility preservation. For similar reasons, it is often appealing for patients with comorbidities precluding surgical management. However, there is limited data in this setting. This study aims to examine the efficacy of the levonorgestrel IUD for treatment of endometrial hyperplasia, EIN, and malignancy, defined as any improvement in pathology or symptomatology at any follow up visit.

Methods: A descriptive study was conducted using records from University Hospital and Clinics (UHC) in Lafayette, Louisiana. Eligible records dating from 3/1/2014 to 12/1/2018 were included. Women with the histopathological diagnosis of endometrial hyperplasia with or without atypia, EIN, or endometrial malignancy and who were treated with a levonorgestrel IUD met inclusion criteria. We monitored for the evolution of disease through symptomatic monitoring, repeat endometrial sampling with endometrial biopsy (EMB) or dilation and curettage (D&C). Follow up visits for repeat endometrial sampling occurred at 3 month intervals with a goal of 3 follow up visits total in order to document response to treatment.

Results: A total of 34 women met inclusion criteria. 41% of patients were African American and 45% were Caucasian. The mean BMI was 43.4 (39.43-47.33, 95% CI). The average age of patients at diagnosis was 54.05 years old (51.15-56.95, 95% CI). Of the 34 patients followed, 17 (50%) were followed with symptomatology alone, and 9 (26%) had follow up endometrial sampling, while the remainder did not return for follow up at UHC. From the initial 34 patients who had a diagnosis of concern and IUD placement, by the third follow up visit, 22/34 (65%) had improvement in either bleeding or endometrial sampling at any of 3 follow up visits with a mean time to resolution of 6.75 months (2.94-10.96, 95% CI). Of the two patients with endometrial cancer who had endometrial sampling at follow up, one had a benign endometrial sample at follow up. The other patient did not return after the first follow up and eventually underwent radiation treatment. From the patient cohort with EIN/hyperplasia who had endometrial sampling at follow up visits, 1/6 (17%) had progression of disease and the remaining 5/6 (83%) had improvement.

Conclusion: This descriptive study showed a 65% rate of either symptomatic or biopsy proven improvement in EIN or endometrial cancer, with a mean time to resolution of 6.75 months from initial diagnosis. In the future, a prospective trial, using our same inclusion criteria and demographics should include IUD versus oral progesterone with sampling every 6 months.

What Factors Influence the Success or Failure of Cerclage Placement in Pregnant Women at High Risk for Preterm Birth?

Jamaan Kenner MD, Candice Schwartzenburg, Joseph L Hagan ScD, Ann C Chau MD

Department of Obstetrics & Gynecology Louisiana State University Health Sciences Center, New Orleans

Objective: To investigate factors that influenced the success or failure of cerclage placement in pregnant women with a short cervix and a history of prior preterm birth

Methods: In this retrospective cohort study, we investigated singleton pregnancy outcomes of women with previous preterm delivery (<34 weeks) who had a cerclage due to a shortened cervix (<25mm) before 24 weeks of gestation between 2015-19 at East Jefferson General Hospital. All patients received intramuscular (250mg) or vaginal (200mg) progesterone from 16 weeks to 36 weeks of gestational age. Failure of a cerclage was defined as preterm delivery prior to 36 weeks of gestational age. Variables that were studied include: preterm premature rupture of membranes (PPROM) preterm labor, suture type, type of cerclage (McDonald vs Shirodkar), the second rescue cerclage due to inadequate initial surgical placement, BMI, pregestational diabetes, hypertension, gestational age at cerclage placement, polyhydramnios, large for gestational age fetus, distal functional closed cervical length(the length of closed cervix to the external os), length from cerclage to external os, length from cerclage to internal os, and cervical dilation as evidenced by ultrasound. Success of cerclage placement was defined as delivery at ≥36 weeks gestation). Fisher's exact test and logistic regression analysis were used. A p-value of <0.05 was considered statistically significant.

Results: During the time frame studied, eighty women met the inclusion criteria. Of these women, eight had Shirodkar cerclages placed and 72 had McDonald cerclages. Twenty-one of the eighty women (38.24%) had failed cerclages. Women having failed cerclage delivered at 32±4.8 weeks versus 37.8±1.01 weeks in the success group. Women with preterm premature spontaneous rupture of membranes (PPROM) were more likely associated with failed cerclages (10/12=83.33% versus 11/68=16%, p<0.001). Preterm labor (PTL) occurred more frequently in failed cerclages (25/26=96.15% versus 0/42, p<0.001). Suture type, cerclage methods, gestational age at cerclage placement, placement of a second rescue cerclage, prepregnancy BMI, BMI at cerclage placement, pregestational diabetes, hypertension, polyhydramnios, and large for gestational age fetus were not associated with cerclage failure (p>0.05). Also, the DFCL, the length between cerclage and internal os, the length between the cerclage and external os, and the cervical dilation did not significantly affect cerclage outcomes (p>0.05).

Conclusion: Patients who failed cerclage placement were more likely to have had preterm labor or had PPROM. Placental inflammation or placental dysfunction may be the significant factors in the success or failure of cerclage. Further studies will be necessary to find effective treatment for preterm labor and PPROM.

Impact of Resident Led Didactics on OBGYN Clerkship Shelf Scores and Student Satisfaction

Valerie E. Valero MD, La'Nasha Tanner MD

Department of Obstetrics and Gynecology, Louisiana State University Health Sciences Center – New Orleans

Objective: At the start of academic year 2015-2016, the Department of Obstetrics & Gynecology at Louisiana State University School of Medicine-New Orleans implemented a new lecture series for 3rd year medical students. These lectures were geared towards high yield OB/GYN topics. The lecture series was given to the New Orleans based medical students and content was delivered by a chief resident. Our objectives in this study were to compare National Board of Medical Examiners Shelf scores and student satisfaction scores prior to and after implementation of the Wednesday lecture series.

Methods: A retrospective review of Ob/Gyn Clerkship shelf exam scores from 2013-2017 was performed. High, average, and low scores were calculated from each block and compared across the training sites. Comparison groups included Baton Rouge and Lafayette based medical students who did not receive the same resident lecture series during their clerkship. Student satisfaction scores based on results from the Aesculapian Society evaluations were compared. Scores before and after implementation were examined. The Kruskall-Wallis test was used with a p-value of <0.05 considered statistically significant.

Results: All campuses mean and median scores have improved since 2014. Scores in New Orleans were significantly higher in 2016 and 2015 than both 2014 and 2013, before the intervention was rolled out (p-value <0.05). Test scores within the pre and post periods (2013 vs 2014 and 2015 vs 2016) were not significantly different in New Orleans (p-value 0.293). Lafayette scores were significantly higher in 2016 than 2015 (p=.0051). Scores in Baton Rouge were significantly lower in 2013 vs 2014, 2015 and 2016 (p<.001), but no other year comparisons were significant. The post intervention period (2015-2016) for each of the 3 campuses were not statistically different (p-value 0.293). Aesculapian Society scores evaluating medical student satisfaction with both residents and the clerkship also increased over time.

Conclusion: Student experience and satisfaction may vary by location based on clinical exposure and opportunity. Our current data suggests a positive correlation in resident teaching and satisfaction scores as well as a positive correlation in NBME scores and satisfaction scores in the New Orleans site. In the future, we would like to have a more standardized implementation of resident led didactics across all 3 clerkship sites. This would also include implementation of an ACGME recommended 'Resident-as-teachers' program as already established in other institutions.

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Does the Presence of a Fetal Abdominal Circumference Less Than the 10Th Percentile Alone Have a Significant Adverse Effect on Perinatal Morbidity?

Samantha Prats MD, Rachel Kopkin, Linda Auduong, Joseph Hagan ScD, Ann Chau MD

Department of Obstetrics and Gynecology, Louisiana State University Health Sciences Center – New Orleans

Objectives: This study investigated the impact of a fetal abdominal circumference (AC) of less than the 10th percentile versus an estimated fetal weight (EFW) of less than 10% on perinatal outcomes.

Methods: In this retrospective cohort study, we compared perinatal outcomes of singleton fetuses having an isolated fetal AC of less than 10% versus those having an EFW of less than 10% from 35-38 weeks of gestational age (GA) from January 1, 2015 - December 31, 2017. These women were managed prenatally at the Louisiana State University Health Sciences Center Perinatal Clinics and delivered at either Touro Infirmary or East Jefferson General Hospital. The perinatal outcomes collected included GA at delivery, birthweight, Apgar scores, neonatal intensive care unit (NICU) admission, meconium aspiration (MEC), respiratory distress syndrome (RDS), necrotizing enterocolitis (NEC) and intraventricular hemorrhage (IVH). Fetuses at 35-38 weeks were categorized into 3 groups including: A (EFW<10th%, AC<10th%), B (EFW<10th%, AC>10th%), and C (EFW>10th%, AC<10th%). The neonatal morbidity composite score (NMCS) included preterm delivery, small for gestational age (birthweight <10th% for GA), 1 minute Apgar score of <5, 5 minute Apgar score of <5, MEC, RDS, NEC, IVH, NICU admission, and NICU stay of >48 hours. Statistical analyses utilized included Wilcoxon Rank Sum, Fisher Exact Test, Linear Regression, and Logistic Regression. A p-value of <0.05 was considered statistically significant.

Results: At 35-38 weeks, fetuses having an EFW<10th percentile and AC<10th percentile (n=83) were delivered at 37.6 with a birthweight of 2407 grams (10.6th% for GA) versus those having EFW>10th percentile and AC<10th percentile (n=78, 37.3 weeks, 2540 grams, 21.5th% for GA). Only their birthweights were statistically different (p=0.02). No fetuses belonged to group B at 35-38 weeks. Groups A and C had similar Apgar scores (p>0.05) and NICU duration (2.3 days vs 2.2 days, p=0.86). After controlling the days of EFW<10th percentile, every day of an AC<10th percentile was associated with a decrease of 0.014 in the 5 minute Apgar score (p=0.004). The incidence of MEC, RDS, NEC, IVH were not different (p>0.05) among these 2 groups. With use of a logistic regression analysis, neither the number of days of an EFW<10th percentile nor the number of days of an AC <10th percentile were significantly associated with individual perinatal outcomes. The NMCS was not significantly different among these 2 groups. With use of a linear regression analysis, neither the number of days of an EFW<10th percentile nor the number of days of an AC<10th percentile were significantly associated with the NMCS.

Conclusions: The duration of an AC<10th percentile for gestational age significantly decreased the 5 minute Apgar score. Fetuses having an EFW<10th percentile had similar perinatal outcomes to fetuses having only an AC<10th percentile. In summary, further studies with larger study sizes are needed to determine the impact of an AC<10th percentile on perinatal outcomes.

Effect of Simulation of Shoulder Dystocia and Documentation on Obstetrics & Gynecology Residents' Delivery Notes

Diana Shustarovich MD MSc, Andrew Chapple PhD, Stacey Scheib MD

Department of Obstetrics & Gynecology, Louisiana State University Health Sciences Center – New Orleans

Background: Shoulder dystocia is an infrequently encountered (0.2 - 3%) of vaginal deliveries) but significant obstetrical emergency that may have dire consequences, with potential for both poor maternal and neonatal outcomes. This study evaluates the efficacy of standardized simulation training on OBGYN residents' documentation of shoulder dystocia. The aim is to determine whether simulation for documentation of medical emergencies is a beneficial addition to residency training curriculums.

Methods: Twelve LSU OBGYN residents were exposed to a clinical simulation of a delivery complicated by a shoulder dystocia. The residents were then instructed to write the delivery note for the clinical simulation (pre-test). The residents were provided feedback on their delivery notes, given a lecture on shoulder dystocia, and instructed on the checklist of eleven components required for documentation. The same clinical simulation of a delivery complicated by shoulder dystocia was presented. The residents were again instructed to write the delivery note for the clinical simulation (post-test). Residents' pre-test and post-test delivery note narratives were then compared and scores were assessed using a paired Wilcoxon signed-rank test from pre-test to post-test. A p-value of <0.05 was considered statistically significant.

Results: 12 residents participated, 7 residents in their first or second year (PGY 1 & 2) and 5 residents in their third or fourth year (PGY 3 & 4). The total score across all residency years was 5 points higher post-test, with a range of 3-7 (p=0.002). When analyzed by year, the PGY 1 & 2's showed improvement between the pretest and post-test (p=0.02), For the PGY 3 & 4 levels, improvement neared statistical significance (p=0.053). Overall, residents across all PGY years saw significant improvements in accuracy for time/date, list of providers involved, which shoulder was anterior, infant birth weight, cord gases, APGAR scores, and estimated blood loss.

Conclusion: Simulation of obstetrical emergencies, such as shoulder dystocia, has been demonstrated in several prior studies to improve performance and outcomes. However, most simulations only focus on the procedure or maneuvers performed. The improvement of residents' documentation from pre-test to post-test for all resident levels was statistically significant with a greater significance in the PGY 1 and 2 residents. This study demonstrates that simulation of documentation following this emergency may contribute significantly to overall better outcomes for both patients and providers. Simulation of documentation, as well as development of a standardized shoulder dystocia checklist, can help promote better quality care.

Survivability of PPROM at Less than 23 weeks After Hospital Re-admission for Intervention

Felicia LeMoine MD, Stephen Padgett MD, Ferney A. Moore MD, Robert Clifton Moore MD

Department of Obstetrics and Gynecology Louisiana State University Health Sciences Center – Baton Rouge

Objective: Preterm premature rupture of membranes (PPROM) prior to 23 weeks gestational age (GA) is considered a predictor of poor neonatal outcome. However, as the gestational age of neonatal survivability continues to decrease, conservative management with hospital readmission at a point of viability (usually 23-24 weeks) is becoming more common. Current published literature does not provide robust data as how to counsel patients regarding neonatal survival once readmitted for intervention. Our objective is to describe our hospital's recent experience following expectant management of previable PPROM once re-admission for neonatal intervention has occurred.

Methods: We performed a retrospective hospital database review of patients admitted to our facility for PPROM over the last 5 years (2011-17). Inclusion criteria for the study were singleton pregnancies with PPROM prior to 23 0/7 weeks GA. Exclusion criteria were multiple gestations, fetal anomalies, pregnancies with recent intervention (i.e. amniocentesis) and patients who did not desire neonatal resuscitation. Primary outcome was neonatal survival to discharge. Secondary outcomes included survivability with PPROM prior to 22 weeks, prior to 20 weeks and average gestational age of delivery for survivors. Kruskall-Wallis test was used to compare mean gestational age at the time of delivery as well as the mean latency periods among the aforementioned rupture groups. Latency was further analyzed, using the Kruskall-Wallis test, after further subdivision of those rupture groups by survival versus non-survival. Finally, logistic regression was performed to determine survival was a function of antibiotic administration, gestational age of rupture, latency period, maternal age or maternal African American race.

Results: Between 2011 and 2017, we identified 338 patients admitted for management of PPROM. Sixty-two patients were singleton pregnancies with PPROM prior to 23 weeks. Of these, 15 neonates (15/62; 24%) survived to discharge (average delivery GA 25 3/7 weeks). For the subset of PPROM prior to 22 weeks, 4 out of 42 survived (9%; average GA of 28 5/7) and for PPROM prior to 20 weeks, 2 out of 22 survived (9%; average GA of 30 4/7). A Kruskall-Wallis test was performed to compare the mean gestational age at delivery among the three rupture groups, noting a significant difference among the three groups (χ 2= 13.5, p=0.001). From these findings, it can be concluded that a later gestational age at delivery is necessary to achieve survivability following earlier, previable PPROM. A Kruskall-Wallis test comparing latency periods produced a test statistic of 16.928 and a p-value of .004639, leading us to conclude there is a significant difference in latency periods among those that survived to NICU discharge versus those that did not survive to NICU discharge with the mentioned gestational age groups. Logistic regression analyses indicate that only gestational age at rupture and length of latency period had a significant effect of rate of survivability to NICU discharge.

Conclusion: Neonatal survivors of earlier PPROM did require a significantly more advanced gestational age to achieve survivability. Hopefully this data can be used for antenatal counseling of future patients.

Poster Presentations

Jaimee Castillo-Quek MD, House Officer III, LSUHSC Baton Rouge

Utilization of a GDM Clinic Navigation Model to Increase Compliance with DM Screening in the Postpartum Period

Jaimee Castillo-Quek MD, Taylor Cook DO, Karli M. Boggs MD

Patrick Daigle MD, House Officer II, LSUHSC New Orleans

Is There a Relationship Between the Cell Free DNA Fraction and Placental Location?

Patrick Daigle MD, Ann Chau MD

Dina Epstein MD, House Officer IV, LSUHSC Baton Rouge

Postpartum Care in a Resident Clinic Setting
Dina Epstein MD, Sarah Buzhardt MD, Andrew Chapple PhD, Jessica Cole

Bobby Garcia MD, Fellow, LSUHSC Baton Rouge

Cosmetic Gynecology: A Systematic Review & Call for Standardization
Bobby Garcia MD, Stacey Scheib MD, Julie Schiavo, Barry Hallner MD, Lisa Peacock MD

Kaitlin McGrail MD, House Officer II, LSUHSC Baton Rouge

Single Dose versus 5 Day Dosing of an Aromatase inhibitor for Ovulation Induction
Kaitlin McGrail MD, Neil Chappell MD, MSCI, John Storment MD, Susan Conway MD, Amelia
Sarah Buzhardt MD

Pallavi Nair MD, House Officer II, LSUHSC New Orleans

Examining Patterns of Genetic Evaluation As Well as the Prevalence of Tumor Mismatch Repair Deficiency or Microsatellite Instability and Lynch Syndrome in Women with Endometrial Cancer in New Orleans

Pallavi Nair MD, MS, Morgan McDougal BS, Tova Weiss BA, Paula Gregory PhD, Amelia Jernigan MD

Crystal Nhieu MD, House Officer III, LSUHSC Baton Rouge

Health Disparities in Louisiana Women: A Population Based Study Analyzing Incidence of Invasive Vulvar Cancer

Crystal Nhieu MD, Tammy Dupuy MD, F.A. Moore MD, Xiao-Cheng Wu MD

Ralitza Peneva MD, House Officer II, LSUHSC New Orleans

Rates of Regression, Persistence, & Progression of Cervical Dysplasia Based on HPV Subtype at a Safety Net Hospital in the Southeastern US

Ralitza Peneva MD, Andrew Chapple PhD, Jason Mussel PhD, Amelia Jernigan MD

Markeiya Polite MD, House Officer II, LSUHSC New Orleans

Complication Rates of Laparoscopic Direct Left Mid-Abdominal Trocar Entries: A Retrospective Observational Study

Markeiya Polite MD, MPH, Tracy Dodd PhD, May Thomassee MD

Nia Thompson MD, MPH, Fellow, LSUHSC New Orleans

Comparing Outcomes after Tension Free Vaginal Tape Placement with General Anesthesia versus Local Anesthesia

Nia Thompson MD, MPH, Markeiya Polite MD, Bobby Garcia MD, Barry Hallner MD

Selam Whitfield MD, House Officer II, LSUHSC New Orleans

Examining Factors That Influence Route of Hysterectomy at an Academic Institution in the Southeastern US

Selam Whitfield MD, Nia Thompson MD, MPH, Melanie Hotz BS, Lisa Peacock MD



Does Implementation of a GDM Clinic Navigation Model Decrease Adverse Maternal and Neonatal Outcomes in Lower Socioeconomic Status Patients?

Jaimee Castillo-Quek MD, Taylor Cook DO, Karli M. Boggs MD
Department of Obstetrics and Gynecology
Louisiana State University Health Sciences Center — New Orleans, Louisiana

Background

In patients with gestational diabetes (GDM), there is a 7-fold increased risk of T2DM compared to non-GDM patients. Current ACOG recommendations are to screen GDM patients at 6-12 weeks postpartum with a 2-hour glucose tolerance test (2-hr OGTT) to evaluate for T2DM. Patients who screen positive are then referred to a primary care provider for early intervention and appropriate management of T2DM.

Furthermore, GDM can lead to adverse complications in both the mother and the fetus. Maternal complications can include delivery by Cesarean and pre-eclampsia while fetal complications can include shoulder dystocia, macrosomia, intrauterine fetal death, etc. Patients of lower socioeconomic status (SES) are at an even greater risk of developing these complications due to financial and social constraints that contribute to their poor access to healthcare. Thus, a nurse-driven clinic navigation system was developed to combat these issues in GDM patients.

Objective/Hypothesis

To decrease the rates of adverse maternal and neonatal outcomes in GDM patients of lower SES using our GDM clinic navigation system

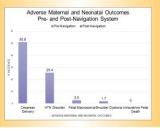
- Hypothesis
 We hypothesize that in the long-term, our navigation system will lead to: An increase in diabetic screening in the
- postpartum period, and
- * A decrease in maternal and neonatal morbidity - specifically, rates of Cesarean delivery, hypertensive disorder in pregnancy, fetal macrosomia, shoulder dystocia, and intrauterine fetal death.

Material and Methods

- A retrospective chart review will be performed of GDM patients who delivered prior to and after the implementation of the navigation system in August 2018.
- ♦ Pre-navigation: Jan 2017 Aug 2018
 ♦ Post-navigation: Aug 2018 Feb 2019
 ♦ Maternal complications to be investigated will include:
 - * Type 2 Diabetes
 - Delivery by Cesarean, and
 - Hypertensive disorder in pregnancy (GHTN, Pre-eclampsia with and without severe features, Eclampsia)
- Neonatal complications to be investigated
 - Fetal macrosomia
 - Shoulder dystocia, and
- * Intrauterine fetal death
- Complication rates pre- and post-navigation system will be calculated and compared

Preliminary Data

- In the pre-navigation group:
 - * A total of 59 GDM patients identified Only 55 out of 59 patients delivered with
 - LSUHSC at Woman's Hospital
 - There were no patients identified to have T2DM in the postpartum period



Conclusion

- · Preliminary data indicate a high rate of both cesarean section and hypertensive disorders of pregnancy in patients with GDM.
- This study aims to prove that individualized patient navigation and education can decrease both maternal and fetal morbidity and mortality.
- More time is needed to appropriately assess the effects of the navigation system on adverse maternal and neonatal outcomes when compared over a similar time frame.

Relevance

- ❖ Implementation of a GDM clinic navigation system in the clinic can:
 - Improve diabetic screening in the postpartum period
 - Allow for earlier identification and PCP referral for management of T2DM
 - ❖ Decrease adverse maternal and neonatal outcomes in the long-term

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Is there a Relationship Between the Cell Free DNA Fraction and Placental Location?

Patrick Daigle MD, Ann Chau MD
Department of Obstetrics and Gynecology
Louisiana State University Health Sciences Center - New Orleans, Louisiana

Background/Objective

Cell-free fetal DNA (cff-DNA) is a newly detected biomarker that might be associated with various obstetric outcomes. The major source of cff-DNA is the cells of syncytiotrophoblastic origin.¹ During apoptosis, their RNA and DNA are released into the maternal circulation in the form of syncytial knots.² Accidental breakage or necrosis may be one of the causes of the release of cell-free nucleic acids in addition to the normal cellular aging process.³ In the last few years, cff-DNA has been used to screen for trisomy 21, trisomy 13, trisomy 18, and sex chromosome aneuploidy (Noninvasive prenatal testing or cfDNA test).⁴

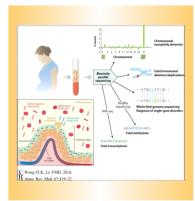
Our objective is to determine if there is a relationship between the cff-DNA fraction and placental location.

Material and Methods

Study population: pregnant women having cff-DNA test done for clinical indications between 1/1/2010 and 12/31/2018 at East Jefferson General Hospital and Touro Infirmary.

Placental location (fundal location, partial or complete previa with or without hemorrhage, placental abruption) and cell-free fraction (%) in the maternal circulation between 10 weeks 3 days and 24 weeks of gestational age will be recorded.

The investigated perinatal outcomes are birthweight, gestational age at delivery, Apgar Scores, neonatal intensive care unit admission, respiratory distress syndrome, necrotizing enterocolitis, meconium aspiration, and the incidence of prenatal hemorrhage due to the abnormal placentation.



References

Hypothesis

We hypothesize that placental location will affect the cell-free fetal fraction (%) in the maternal circulation between 10 weeks 3 days and 24 weeks of gestational age. We also hypothesize that the cell-free fraction (%) in the maternal circulation is predictive of the pregnancy outcomes related to abnormal placentae.

Expected Results

We expect to find that partial or complete placenta previas will have a statistically significant higher cell-free fetal fraction (%) in the maternal circulation between 10 weeks 3 days and 24 weeks of gestational age in comparison to fundal placentas.

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Postpartum Care in a Resident Clinic Setting

Sarah Buzhardt, MD, Dina Epstein, MD, Jessica Cole, Andrew Chapple, PhD Department of Obstetrics and Gynecology **Louisiana State University Health Sciences Center**

Background/Objective

Postpartum follow up has traditionally taken place 6 weeks after delivery. In order to optimize a woman's health and well-being, ACOG is now recommending some form of postpartum contact during the first 1-3 weeks after delivery followed by a comprehensive visit within the first 12 weeks. At that visit the following should be addressed: mood and emotional well-being; infant care and feeding; sexuality, contraception, and birth spacing; sleep and fatigue; physical recovery from birth; chronic disease management; and health maintenance. It is estimated that up to 40% of patients are not receiving this critical postpartum care. In a state with some of the highest rates of preterm birth, obesity, hypertension, and diabetes, it is imperative that these issues be addressed in order to prevent adverse maternal and neonatal outcomes.

- · To determine baseline postpartum follow up rates in our low
- income inner city population.

 To identify patient characteristics that increase or decrease the probability of having a postpartum visit

Results

- · 62.4 % of patients had at least 1 postpartum visit.
- Caucasians were less likely, while Hispanics were more likely to have a postpartum visit than African Americans (p 0.016 and p 0.014, respectively).
- Increased gravidity and term pregnancies were associated with decreased probability of a postpartum visit (p 0.035 and p 0.007, respectively)
- Older age was associated with increased probability of a postpartum visit (p 0.001).
- Patients with vaginal deliveries had a decreased probability of a postpartum visit (p4.28e-09).
- Patients with adequate prenatal care (vs no/limited) had an increased probability (p 1.64e-12) of a postpartum visit, which was the largest effect among the covariates considered
- Having a postpartum visit had the largest effect on using contraception, but did not affect the probability of breast

Conclusions/Discussion

- . The postpartum follow up rate in our clinic is consistent with the national average with only 62.4% of our patients receiving postpartum care.
- All covariates except number of living children and gestational age significantly affected the probability of a postpartum visit with adequate prenatal care associated with the highest increase in probability.

The purpose of this study was to establish the postpartum follow up rate of our patients. We plan to use this rate as a baseline for comparison as we implement changes aimed at increasing postpartum follow up. Additionally, we have identified characteristics of our patients that increase and decrease the probability of them having a postpartum visit and can use that information to develop more targeted interventions.

Material and Methods

A retrospective chart review of deliveries done by the LSUSOM Ob/Gyn residency program in Baton Rouge from July 2015-June 2016 was performed using the residency delivery log for patient identification and then review of the patients' hospital and clinic electronic medical records.

1126 deliveries occurred during this time frame, 45 were excluded due to insufficient data or the presence of duplicate log entries for twins. Data collected included postpartum visit(s) within 8 weeks of delivery, patient demographics, breastfeeding contraception, depression screening, gestational diabetes follow up screen, subsequent pregnancy. There was no link from the data to the individual. Data was stored on a password protected computer in a locked office and locked spreadsheet.

A logistic regression model was used to examine what covariates (gestational age, race, gravidity, age, vaginal delivery, adequate prenatal care, and number of term pregnancies and living children) affected the probability of having any postpartum visits, breast feeding, and contraception usage among 1081 patients who delivered at Woman's Hospital from July 2015-June 2016.

Tables/Graphs



Blam Blam Blam at home and Dec Age

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Cosmetic Gynecology: A Systematic Review & Call for Standardization

Bobby Garcia MD, Stacey Scheib MD, Julie Schiavo, Barry Hallner MD, Lisa Peacock MD **Department of Obstetrics and Gynecology** Louisiana State University Health Sciences Center - New Orleans , Louisiana

Background/Objective

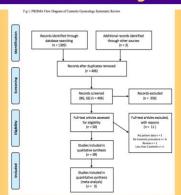
Cosmetic Gynecology, also referred to as Female Genital Plastic and Cosmetic Surgery, and other monikers, has synergistically gained both popularity and notoriety in recently years. A gynecology totabook from 1975 characterized enlarged labla minora as "Saniel car mynhac", with the list care report of surgical intervention via a "valvoglasty" described in 1978.² White technical descriptions of these procedures have envised demandation in the intervention via a "valvoglasty" described in 1978.² White technical descriptions of these procedures have envised demandation in the intervention of receded, a concentre deflort towards a widely accepted classification system has not. To further compound matters, the adverted the women asking for committee surgery. The interferois combination has left to the development of colloqual or by terminology that has gained widespread acceptance. For example, a committee surgery. The interferois combination has left to the development of colloqual or by terminology that has gained widespread acceptance. For example, a commonly uped term such as "aginal religionation" may have substantially different implications amongst providers and patients ranging from a procedure on the labla minora, vagina, or use of an energy based therapy (EST). In direct response to this ambiguity the American College of Obstetricians and Gynecologists (AcOC) released a Committee Opinion in 2007 in which they stated that commetic procedures were not medically indicated and the safety and effectiveness has a comment of the comment o

ast five years).—
The aim of this systematic review is to evaluate the techniques, outcomes, and adverse events in women undergoing cosmetic gynecology procedures.

Material and Methods

A systematic literature search was performed using the following databases: Ovid MEDLINE, Embase, Scopus, Web of Science, CINAHL, clinicaltrials.gov, ProQuest Dissertation and Thesis, LILACS, and the Cochrane Central Register of Controlled Trials (CENTRAL). The search was based on the Controlled Trials (CENTRAL). The search was based on the Medical Subject Headings of the National Library of Medicine keywords such as: "labiaplasty", "clitoral hood reduction", "clitoral platy", "clitoral hood reduction", "laser vaginal rejuvenation", "laser vaginal rejuvenation", "labia majoraplasty", "labia majora lipografting", "vaginal bleaching", "Mommy Makeover", "hymenoplasty", "vaginal lasty", vaginal lasty, "vaginal lasty", vaginal lasty, "vaginal lasty", vaginal lasty, "vaginal lasty", vaginal supremieration, "O-shot", In total 45 unique MeSH descriptors amplification", "O-shot", In total 45 unique MeSH descriptors and keywords were used. No date restrictions were used, and the results were limited to articles in English and Spanish. All prospective and retrospective observational and interventional studies with at least three patients that describe a cosmetic gynecology procedure were included. Two authors reviewed all titles and abstracts from the search results to determine eligibility. Any discrepancies in selection were resolved by a third author. The references of selected articles and any prior reviews were also evaluated to identify additional articles protocol has been submitted for registration at PROSPERO.

PRISMA Flow Diagram



Keyword Search

- abia Majora Procedures (2):
- Mons Pubis Procedures (5):

viagnal Caiber Procedures (18): — Beigner Laser vagineplanty Vagneplanty Coloporative State Coloporative State Coloporative State Vagnel Explanting Vagnel Explanting Vagnel Explanting Vagnel Explanting Vagnel Recalibration Vagnel Recalibra

- Pelvic Floor Coloration (1):
- Vaginal Bleaching
 Non-Descriptive Colloquial Terms (3)

Expected Results/Prelim Data

A total of 453 articles were identified from the search strategy. After removing duplicates 36 articles met eligibility criteria and 3 additional articles were added from reference review for a total of 39 articles to be included for analysis. There was 1 randomized controlled trial, 1 cross sectional study, 34 cohort studies, and 3 case series. Procedures described included: labiaplasty 30, clitoral hood 9, labia majora augmentation 7, hymenoplasty 4, vaginoplasty 4, mons pubis 1. There were 5 articles that discussed multiple cosmetic gynecology procedures. Publication by specialty: Plastic Surgery 27/39 (69.2%), Urogynecology/Gynecology 10/39 (25.6%), Multi-Specialty 2/39 (5.1%). Seventeen countries were represented in these regions: North America 14/39 (35.8%), Europe 12/39 (30.7%), South America 7/39 (17.9%), Asia/Australia 6/39 (15.3%). Most patients were very satisfied or satisfied with the cosmetic or functional outcome of their procedure. Complication rates were labiaplasty (1.7-25%), labia majora (0-12.5%), hymenoplasty (0-33%), vaginoplasty (0-22.2%).

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Single Dose versus Five Day Dosing of an Aromatase Inhibitor for Ovulation Induction

Kaitlin McGrail MD, Susan Conway MD, John Storment MD, Sarah Buzhardt MD,
Neil Chappell MD, MSCI
Department of Obstetrics and Gynecology
Louisiana State University Health Sciences Center - New Orleans, Louisiana

Background

The aromatase inhibitor, letrozole, is a common drug used for ovulation induction (OI) in subfertile couples, especially in certain populations¹. Letrozole inhibits the conversion of testosterone and androstenedione to estradiol and estrone, decreasing peripheral levels of estrogen and thus negative feedback on the pituitary and increasing FSH secretion to improve follicular recruitment and growth, Figure 1. The standard dose of letrozole is 2.5-7.5mg daily given for 5 days during the early follicular phase of the menstrual cycle and is often combined with intrauterine insemination (IUI).

A previous non-randomized clinical study² compared a single high dose of letrozole with the standard 5 day regimen for ovulation induction. This study concluded that the pregnancy rates were equivalent among these two groups; however the study failed to report the sample size, and thus the power of the study cannot be determined. Therefore, further investigation is warranted into whether these different regimens are truly comparable.

Figure 1. $\begin{array}{ccc} & & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$

Objective

To compare the efficacy of single dose letrozole with standard five day course for ovulation induction.

Material and Methods

A retrospective cohort study of all patients undergoing Ol/IUI cycles with letrozole from January 2015 to December 2017 in a single fertility clinic will be collected. Patients either received a one time dose of 25 mg letrozole on cycle day 3 or daily dose of 5 mg letrozole for 5 days on cycle days 3-7. Patients will be excluded from the study if they received gonadotropins in addition to the letrozole. The primary outcome examined will be pregnancy rate (PR), defined as a positive HCG titer. Secondary outcomes examined will be live birth rates (LBR), multiple gestation rate (MGR), and miscarriage rate (SAB). LBR will be defined as birth after 24 weeks gestation. SAB will be defined as a loss at less than 20 weeks gestation. We will also review the demographic data including age, tobacco use, body mass index, gravity, and sperm count.

Preliminary Data

Table 1	# of Patients	PR	LBR	MGR	SAB
1 day	346	12.43%	8.67%	16.28%	20.93%
5 day	328	13.41%	7.32%	11.36%	34.09%

Expected Results

We expect to find that a single dose protocol with letrozole in an OI/IUI cycle to be as efficacious as standard five day dosing. This could potentially lead to improved patient compliance with similar reproductive outcomes using this single dose regimen.

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Examining patterns of genetic evaluation as well as the prevalence of tumor Mismatch

Repair Deficiency or Microsatellite Instability and Lynch Syndrome in Women with

Endometrial Cancer in New Orleans
Pallavi Nair-Fairless, MD, MS; Morgan McDougal, BS; Tova Weiss, BA; Paula
Gregory, PhD, Amelia Jernigan, MD
Department of Obstetrics and Gynecology

Louisiana State University Health Sciences Center - New Orleans , Louisiana

Background/Objective

- Endometrial cancer (EC) is the most common gynecologic cancer.
 3-5% of ECs are due to germline mutations resulting in genetic syndromes such as Lynch syndrome (LS)
- When women are <50 years of age at diagnosis, 5-13% of EC
- are due to germline genetic syndromes

 Detection of germline mutations can guide treatment.
- Detection of germline mutations can guide treatment, screening for other related malignancies and identification of affected family members
 LS is a familial cancer susceptibility syndrome caused by germline inherited defective mismatch repair (MMR) function which leads to Microsatellite Instability (MS) (Figure 1): his leads to an elevated risk of many cancers including colorectal, endometrial and ovarian.
- Even in the absence of a germline mutation, 20-30% of EC tumors will be functionally deficient in MMR proteins, largely due t epigenetic silencing of MLH1 via hypermethylation of the MLH1
- epigenetic stiencing or Mutit the hypermetry of promotor region.

 The National Comprehensive Cancer Network (NCCN) recommends universal testing of EC tumors in one of two ways in Immunohistochemistry (IHC) for MMR proteins with reflex testing for MLH1 promotor hypermethylation if tumors are found to be MLH1 deficient

 MC1 reaction by nollymerase chain reaction based assays
- The NCCN then recommends further genetic counseling and
- testing for individuals with abnormal tumor testing as above, as well as for a number of other individuals based on personal and
- family history. (Figure 2)

 Rates of some LS related cancers, such as colon cancer are his
- in South Louisiana, but rates of tumor testing and genetics
- Little is known about the rates of tumor testing and genetic evaluation or prevalence EC tumor MMR deficiency or germline LS in the South Louisiana population.
- To describe practice patterns with regards to genetic testing
 To describe practical concerning South Louisiana



Hypothesis

- We hypothesized that the
 rates of adherence to NCCN guideline recommended
- tumor testing and genetics evaluation would be low South
- the prevalence of tumor MMR deficiency/MSI and germline
 LS would be similar to the prevalence reported in other
 populations with EC roughly 20-30% and 2.3% respectively.

Material and Methods

- Using ICD9 and 10 codes for endometrial cancer, patients were entified at UMCNO between 1/1/2013 and 12/21/2017
- A retrospective chart review was performed and the following
- data was compiled into a REDCap Database:

 Demographic and health information
- Family and personal history
 Charlson Comorbidity Index (CCI)
- Details regarding EC diagnosis and treatment
- Details regarding tumor testing, germline testing and genetic counseling
- A high risk patient population was defined as any patient diagnosed <50 years of age or with a personal or family history of a Lynch associated cancer (LAC).

Results

- and tumor information are described in Table 1.
- A personal history of another LS cancer was noted in 3 (2.0%) and a family history of a LS cancer was noted in 18 (12.2%).
- 31 (21.1%) had tumor genetic testing.
 Of those, 6 (19.4%) were abnormal: 3 MLH1/PMS2 deficient, 1 PMS2 deficient, 1 MSI-high, and 1 that was both MSI-high and MLH1/PMS2 deficient
- MLH1 promoter hypermethylation was detected in all of the MLH1 deficient tumors
- 4 patients had germline testing and none revealed germline
- mutations suggestive of Lynch Syndrome.

 23 women were categorized as high risk based on age and/or
- personal or family history. Of these • 7 (30.4%) of these had tumor testing.
- 3 (13.0%) had germline testing.
- 6 (26.1%) were referred for genetic counseling.

Variable	N.(%)	Median (95% CI)	Variable	N.CE)	Median (95% CI)
Race Black White Hispanic Other	64 (43.5%) 75 (51.0%) 5 (3.4%) 3 (2.0%)		Stage II III IV Unk	84 (57.1% 14 (9.5%) 19 (12.9%) 15 (10.2%) 15 (10.2%)	
Insurance Status Private Medicare/Public Medicaid None	20 (13.6%) 40 (27.2%) 52 (35.4%) 35 (23.8%)		Histology Endometrioid Serous Clear cell Mixed Other	104 (70.8%) 15 10.2% 6 (4.1%) 8 (5.4%) 14 (9.5%)	
BMI Underweight Normal Overweight Class I Obese Class II Obese Class III Obese	2 (1.4%) 11 (7.5%) 27 (18.4%) 28 (19.0%) 20 (13.6%) 59 (40.1%)	36.33 (23.5-55.0)	CCI 1-3 4-6 >-6	54 (36.7%) 69 (46.9%) 24 (16.3%)	4 (2.0-9.0)

Conclusions

- Rates of NCCN guideline adherence with regards to somatic and germline genetic testing and genetic counseling are low in our patient population.
 Only 1/5 women had tumor testing despite national guidelines
- for universal testing of ECs.
- Even in our high risk group, only 30.4% had documented tumor testing, 12.0% had germline testing and 26.1% were referred to a genetic counselor.
- 19.4% of tested tumors were notable for MMR deficiency or MSI.

 The prevalence of LS was 0%, but our ability to describe this was limited by the low number of patients tested. Both of these prevalence rates are consistent with published rates in other
- populations.
 This is the first study to describe practice patterns and adherence to these guidelines or prevalence of tumor and germline mismatch repair deficiency in South Louisiana. This is an important step in understanding the cancer genetics of and cancer care delivery practices in South Louisiana as it relates to a diverse and
- practices in South Louisiana as it relates to a diverse and underserved patient population.

 Limitations of this study include selection bias and time bias. Furthermore, constraints inherent to retrospective chart review may have skewed the results, such as genetic testing performed elsewhere or inaccuracies in documentation. We are also unable to comment on motivations or reasons for which patients were or were not tested (resources, payer status, distance from testing/ counseling site, lack of provider education or awareness,
- Quality improvement efforts to ensure genetics evaluation meet national standards are warranted, as is further investigation into the genetic characteristics of this unique and unstudied

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Health Disparities in Louisiana Women: A population based study analyzing incidence of invasive vulvar cancer.

Crystal Nhieu, MD., Tammy Dupuy, MD., Ferney Moore, MD., Xiao-Cheng Wu, MD.
Department of Obstetrics and Gynecology

Louisiana State University Health Sciences Center - Baton Rouge, Louisiana

Background

In the United States, vulvar cancer accounts for nearly 6% of cancers of the female reproductive organs and 0.7% of all cancers in women. The aim of this project was to describe and compare the incidence, age and stage of diagnosis, relative survival and mortality of invasive vulvar cancer in Louisiana as it compares to the national US population.

Methods

Descriptive study analyzing the incidence, mortality and relative survival rates of invasive vulvar cancer in Louisiana from 2000-2014. Data analyzed was from Louisiana Tumor Registry, SEER program and CDC Cancer Registries.

Figures/Tables



Tables

Invasive Vulvar Cancer Incidence Rates* in U.S., Louisiana and by LTR Region, 2000-2014

	All R	aces	White Fe	males	Black Females		
	Rate Count		Rate Count		Rate	Count	
U.S. (SEER)	2.4	16,354	2.6	14,228	1.8	1,317	
Louisiana	2.8†	988	3.0↑	775	2.0	202	
New Orleans	2.5	182	2.7	124	2.2	56	
Baton Rouge	2.7	180	2.9	137	2.0	39	
Southeast	2.6	123	2.6	101	2.4	21	
Acadiana	2.7	129	2.9	105	1.9	23	
Southwest	3.4	76	3.5	62	2.8	^	
Central	3.6#	86	4.1#	75	2.0	^	
Northwest	3.0	135	3.7	108	1.7	26	
Northeast	2.6	77	3.0	63	1.7		

^{*} Rates per 100, 000, age adjusted to U.S. 2000 US Population standard.

, w

Invasive Vulvar Cancer Incidence Rates* in U.S., and Louisiana by Age, 2000-2014

		U.S.	Louisiana				
	Rate	Count	%	Rate	Count	%	
20-29 years	0.2	139	0.9	٨	٨	,	
30-39 years	0.7	648	4.0	1.6†	66	6.8	
40-49 years	2.0	1843	11.3	3.31	159	16.3	
50-59 years	3.5	2889	17.7	4.51	196	20.1	
60-69 years	5.7	3088	18.9	6.5	192	19.7	
70-79 years	9.7	3454	21.2	8.4	167	17.2	
80+ years	16.1	4268	26.1	14.6	193	19.8	

*Rates per 100, 000, age adjusted to U.S. 2000 US Population standard †The Louisiana rate is significantly higher (P<0.05) than the U.S. rate.

Invasive Vulvar Cancer 5 year Relative Survival by Stage¹ in U.S., and Louisiana, 2000-2014

	All Races			White				Black				
	U.S.		LA		U.S.		LA		U.S.		LA	
	Count	Relative	Count	Relative	Count	Relative	Count	Relative	Count	Relative	Count	Relative
Localized	6,974	87.5%	476	82.1%	6,029	87.6%	381	82.4%	571	83.9%	87	78.69
Regional	3,486	54.7%	237	56.8%	3,021	54.1%	179	54.7%	321	61.3%	56	63.09
Distant	630	18.5%	36	15.7%	536	17.6%	21	12.6%	67	22.9%		
Unstaged	620	57.0%	29	57.9%	513	55.0%	21	68.1%	45	52.0%		

Actuarial method. Ederer II method used for currulative expected.

Age standardized to the International Cancer Survival Standard 1 - Ages 15+

- Statistic displayed due to less than 16 cases.

Results

The U.S incidence of vulvar cancer was 2.4 and Louisiana incidence was significantly higher at 2.8 per 100,000 person years (P<0.05). In Central Louisiana, incidence rates for all races was significantly higher than general Louisiana rates (3.6 vs 2.8, P<0.05). In Louisiana mortality rates were significantly lower than national mortality rates (0.4 vs 0.5, p<0.05). White females' mortality rates were also significantly lower than national mortality rates (0.4 vs 0.5; p<0.05). For females aged <60, Louisiana incidence rates were significantly higher than their national counterparts (30-39 years, 1.6 vs 0.7; 40-49 years, 3.3 vs 2.0; and 50-59 years, 4.5 vs 3.5; p<0.05). 61.6% of the new cases in Louisiana were diagnosed in the localized stage, and 30.1% in the regional stage. The incidence of cases diagnosed with localized (1.7 vs 1.4) and regional cancer (0.8 vs 0.7) are significantly higher than national incidence rates (p<0.05).

Conclusions

Louisiana has higher incidence rates of vulvar cancer as compared to U.S national counterparts. More specifically, Central Louisiana has the highest incidence rate in the state. Although unclear and additional research is needed, it is thought that this increase incidence is secondary to environmental toxins and lack of access to tertiary medical facility.

A Statistic not displayed due to fewer than 16 cases.

^{*}The regional rate is significantly lower (P<0.05) than the Louisiana rate.

[#]The regional rate is significantly higher (P<0.05) than the Louisiana rate.

† or I The Louisiana rate is significantly higher or lower (P<0.05) than the U.S. rate.



Rates of Regression, Persistence, & Progression of Cervical Dysplasia Based on HPV subtype at a Safety Net Hospital in the Southeastern US

Ralitza Peneva MD1, Andrew Chapple PhD2, Jason Mussel, PhD3, Amelia Jernigan, MD1

¹Department of Obstetrics and Gynecology ²School of Public Health ³Department of Cell Biology and Anatomy Louisiana State University Health - New Orleans, Louisiana

Introduction



- Despite the widespread use of cervical cancer screening, up to 13,000 invasive cervical cancer cases and >40,000 cases of carcinoma in situ are diagnosed in the United States angually.

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 The diagnosed is the United States and States an
- are diagnosed in the United States annually.

 This burden of disease is disproportionately
- heavy in the Southeast.

 Louisiana has the 8th highest incidence and 5th highest mortality rate in the country.
- It is widely accepted that high-risk strains of the human papillomavirus (hrHPV) are implicated in cervical pathology.
- Studies suggest the existence of disparities in the high risk strains affecting different ethnic populations.
- This study will aim to determine the baseline prevalence of HPV 16, 18, or "other high risk" strains in women with abnormal cytology or HPV tests in our population. We will then describe rates of and time to regression, progression and persistence of pap smear cytology based on these subtypes.

Hypothesis

A difference in rates of regression, progression, and persistence at 2 years exists based on HR-HPV subtype at baseline.

Materials and Methods

- A longitudinal retrospective chart review will be performed under IRB expedited review.
- Inclusion criteria: female patients ages 21-65 receiving gynecologic care at University Medical Center in New Orleans who had cervical cytology and reflexive HPV testing or routine cotesting demonstrating abnormal cytology or a +hrHPV test with baseline subtyping and at least 24 months of follow up.
- Patients with atypical glandular cells (AGC) at any time, insufficient follow up or with no hrHPV subtyping information will be excluded.
- Demographics and cofactors to be collected at baseline include age, parity, race ethnicity, zip code, referral clinic, HPV vaccination status, smoking, contraceptive method, HIV, BMI, spechiatric comorbidities, and insurance type. Number of 'no show' visits in 24 months after baseline abnormality and surgical treatments will also be recorded.
- Rates of progression, persistence and regression will be described at 2 years based on cytology/hrHPV testing performed 18-30 months from baseline abnormality



With complete follow up, ultimate rates of progression, persistence and regression will be described, as will time to progression, persistence and regression

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Preliminary Results & Planned Analysis

- Previous studies have shown that progression rates for LSIL, HSIL and ASCUS pap smears are roughly 5%. Other studies have estimated that the proportion of patients in each of the HPV subtype groups were 50% for subtype 18 and 25% each for HPV subtype 16 and other.
- Prior UMCNO colposcopy clinic lists were reviewed and were consistent with cited incidence of subtype and progression.
- To determine how many patient records to include in the study, we performed a power analysis to determine if we could detect an increase in progression probability of at least 10% within any of the three groups.
- Our power analysis suggests that we will need to pull data from over 400 patients to obtain an 80% power to detect a difference of 10% in progression rate in any of the 3 groups.
- First we will perform a chi square test of independence to determine if progression, regression and persistence probability at 2 years differs for each group.
- Next we will adjust for important patient covariates in a multinomial regression model to predict progression and regression vs persistence as a function of HPV subtype, age, parity, race, smoking status, HIV status, BMI and OCP use.
- Other possible effects on progression such as ZIP code, adherence to follow up requests, insurance type, and referral clinic will also be included.
- Rates of ultimate progression, persistence and regression will also be described with median times to these outcomes.
- This full multinomial regression model will tell us to what extent HPV subtype, among other predictors, affects the risk of progression or regression after at least two years of follow up.



Complication Rates of Laparoscopic Direct Left Mid-Abdominal Trocar Entries: A Retrospective Observational Study

Markeiya T. Polite MD, MPH, Tracy Y. Dodd PhD, May S. Thomassee MD
Department of Obstetrics and Gynecology
Louisiana State University Health Sciences Center - New Orleans, Louisiana

Background

- Laparoscopic surgery has become widely accepted by surgeons and patients as an effective technique to treat gynecologic pathologies.
- Common locations of initial trocar entry sites for gynecologic surgery have been described at the umbilicus, the left upper abdominal quadrant (Palmer's point), and in the 9th intercostal rib space.
- The overall complication rates of laparoscopic surgery range from 0.46% to 3% and up to 50% of these injuries occur upon insertion of the primary cannula when accessing the peritoneal space.
- The method of entry into the abdominal cavity has been debated since 1910 and there has been minimal literature to provide a gold standard for an ideal entry approach.

Methods

- University Hospitals & Clinic, a 116-bed acute care, academic-teaching hospital in a rural, underserved community was the identified setting of the study.
- Three hundred twenty-nine electronic medical records of patients undergoing gynecologic laparoscopies at UHC from 07/01/2015 to 07/31/2018 were reviewed.
- Variables obtained from charts included patient characteristics (age, ethnicity, BMI, surgical history, date of surgery, number of post-operative visits), surgical procedure, mode and anatomical site of entry, length of hospital stay, and intra- and post-operative complications within two weeks of surgical procedure.

Tables



Objective

- The objective of this descriptive, retrospective study is to establish that direct visual trocar entry into the left mid abdominal region is a safe, initial trocar entry technique.
- We hope to prove this by analyzing the frequency of complication rates with this insertion technique and anatomic location by reviewing data from patients who underwent laparoscopic gynecologic surgeries at the University Hospital & Clinics (UHC).
- Feasibility and safety will be established by identifying associated risk factors for visceral, vascular, or other types of injury.

Preliminary Data

- Preliminarily, 60 out of 329 patient charts have been analyzed.
- Average age of study population is 39.0 years old and 68% are African-American. Average BMI is 34.9.
- Twenty-seven percent of the study population had no surgical history and of those with a surgical history, the most common pelvic surgeries were history of cesarean section (42%) and bilateral tubal ligation (27%).
- Majority of procedures performed in the study population were laparoscopic sterilization procedures (28%) and total laparoscopic hysterectomies (33%).
- Left mid entry point was utilized in 68% of the procedures reviewed.
- No complications encountered were directly related to this entry method or site; however, three surgical complications were noted in the charts reviewed to date.

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Comparing outcomes after Tension Free Vaginal Tape placement with General Anesthesia Versus Local Anesthesia

Nia Thompson, MD, MPH; Markeiya Polite, MD; Bobby Garcia, MD; Barry Hallner, MD

Department of Obstetrics and Gynecology Female Pelvic Medicine & Reconstructive Surgery Louisiana State University Health Sciences Center - New Orleans, Louisiana

Background & Objective

- Tension free vaginal tape is commonly used for mid urethral support and treatment of stress urinary incontinence.
- In general the procedure is safe and has less comorbidities and complications then procedures in the past.
- · Initially the TVT was introduced for use in ambulatory setting with local anesthesia. Over the years, there have been multiple modifications to the sling and insertion device with intentions to favor local anesthesia in an outpatient or ambulatory setting.
- One of the well-established but uncommon complications of TVT placement is postoperative voiding dysfunction.
- · Previous studies examining any type of vaginal surgery have reported fewer complications and higher satisfaction with local anesthesia when compared to general

Hypothesis

• We hypothesize that there are no significant differences in postoperative outcomes including urinary retention, urinary tract infection, presence of incontinence or complications when comparing general anesthesia to local anesthesia

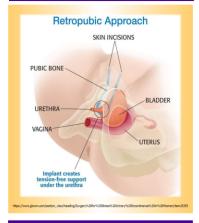
Materials & Methods

- Retrospective chart review of all the Tension Free Vaginal Tapes placed from 01/01/2010-12/31/2016 at University Medical Center, East Jefferson Hospital, and Touro Infirmary in New Orleans, and University Hospital and Clinic in Lafayette.
- · Each chart will be reviewed for demographics including age, ethnicity, smoking status, prolapse, and parity. Intraoperative reports will be reviewed for time in the OR, and immediate operative reports will assess postoperative pain.
- · 6 week follow up visits will be examined for post-operative urinary retention, UTI, and presence or recurrence of incontinence

Expected Results

- We expect to examine ~200-250 cases. Most of the cases will be completed under general anesthesia. We also anticipate that there will be a low rate of post-operative complications and voiding dysfunction
- · Additionally, this study will examine postoperative complications, pain scores immediately after surgery, time in the operating room, and whether or not additional surgeries or procedures were needed.

Graphs



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Examining factors that influence route of hysterectomy at an academic institution in the Southeastern US

Selam Whitfield MD, Nia Thompson MD, MPH, Melanie Hotz BS, Lisa Peacock MD
Department of Obstetrics and Gynecology
Louisiana State University Health Sciences Center - New Orleans, Louisiana

Background

- · Hysterectomy is the most common nonobstetric surgical procedure in the US.
- There are several surgical approaches to hysterectomy including abdominal, laparoscopic, vaginal, or robotic. Historically, the abdominal approach to hysterectomy was most common.
- A national inpatient sample database in 2005 reported on approach for 518,828 hysterectomies performed for benign conditions, of which 65% were abdominal, 22% vaginal, and 14% lanaroscopic.
- · Laparoscopic approach became the most common approach between 2010 and 2013 with an increase from 26.1% to 43.4%.
- Both clinical and nonclinical factors influence the surgical approach to hysterectomy
- Studies have highlighted decreased utilization of laparoscopy in patients who do not private insurance, identify as an ethnic minority, and/or have low income.
- · Jacoby et al. reported that African-American, Latina, and Asian women had 40-50% lower odds of laparoscopic compared with abdominal hysterectomy.

Hypothesis

 There are innate and acquired characteristics in our patient population that influence the mode of hysterectomy choice ultimately limiting utilization of laparoscopic and robotic approaches.

Objective

- Given the underutilization of minimally invasive techniques certain populations, this study intends to assess the hysterectomy approach and characteristics of patients undergoing hysterectomies at our teaching hospitals.
- Results of this study may provide information that can influence clinical decision making in regard to the surgical approach to hysterectomy. This may help provide access to minimally invasive techniques, ultimately improving patient outcomes.

Factors of Interest

- Mode of hysterectomy
- Indication
- Age
- Ethnicity
- BMI
- Parity
- Tobacco use Insurance status
- Previous abdominal surgery
- · History of cesarean delivery
- Concomitant adnexal surgery
- · Presence of stress incontinence
- Presence of uterine prolapse
- Uterine size
- · Length of stay
- · Comorbid conditions: HTN, DM, CAD, OSA, and CVA
- Complications

Materials and Methods

- Retrospective chart review of all the hysterectomies from 09/01/2013-09/01/2018 performed at Interim LSU Public Hospital, University Medical Center in New Orleans, Louisiana, and at University Hospitals and Clinics in Lafayette, Louisiana.
- All modes of hysterectomy including abdominal, laparoscopic, vaginal and robotic assisted are included.
- Concomitant vault repair, prolapse repair, or sling placement will be included.
- Surgeries for an oncologic or cancer indication will be excluded.
- Fach chart will be reviewed for all of the listed factors, operative time, and length of

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LSU OB/GYN Residents and Faculty Quality Improvement and Patient Safety 2018 – 2019

Oral Presentations:

Polite M, Rodrigue E, Thompson N, Bohrer E, Holman S. A multi-disciplinary quality improvement approach decreases rates of insufficient pap smears. ASCCP Annual Scientific Meeting, April 2019 (Poster) and LSUHSC Annual Quality Improvement & Patient Safety Forum, 2019 (Oral Presentation).

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 (Poster)
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LSU OB/GYN Resident Research Day Presentations

2018

Elise Boos, MD, House Officer IV

Advisor: Stacey Holman, MD

Health Literacy and Contraception Experiences in Postpartum Patients

Erin Dougher, DO, FPMRS Fellow

Advisor: Lisa Peacock, MD

Effect of Lidocaine Gel on Pain Perception During Diagnostic Flexible Cystoscopy in Women: A

Randomized Control Trial

Cynthia Grady, MD, House Officer II

Advisor: Florencia Polite, MD Impact of Electronic Health Records on Resident Physicians' Off-Duty Time

***Lauren Knapp, MD, House Officer III

Advisor: Joseph Miller, MD Postpartum Hypertension: Understanding Risk Factors

***Anna Kuan-Celarier, MD, House Officer II

Advisor: Amelia Jernigan, MD

Disparities in Performance of Lymph Node Dissection for Women with Early Stage Cervical

Cancer in Louisiana

Ophelia Langhorne, MD, House Officer III

Advisor: Valerie Williams, MD

Impact of Immediate Postpartum Long Acting Reversible Contraceptive Access on Short
Interval Pregnancy Rates: A Retrospective Cohort Study

Jessica Rosselot, MD, House Officer III

Advisor: Asha Heard, MD
Self-Reported Antenatal Substance Abuse and Neonatal Outcomes

***Nia Thompson, MD, MPH, House Officer IV

Advisor: Stacey Holman, MD

Decreasing the Rate of Insufficient Pap Smears Amongst OBGYN Residents in an Academic

Training Environment

***2018 Research Award Recipients