

UCI School of Medicine
Department of Obstetrics & Gynecology

Proudly presents the

Forty-Second Annual Residents Paper Day and Thirty-Fifth Annual Philip J. DiSaia Society Symposium

Visiting Professor and Moderator

Victoria Handa, MD, MHS

Division Director and Professor
Co-Director, Johns Hopkins Bayview Women's Center for Pelvic Health and
Reconstructive Surgery
Urogynecology and Reconstructive Surgery
Department of Obstetrics and Gynecology
Johns Hopkins University School of Medicine





Table of Contents

CME Activity Statement	3
Disclosure Statement	4
Welcomes Our Visiting Professor and Moderator	5
Previous Annual Residents Paper Day Visiting Professors and Moderators.....	6
Acknowledgements.....	8
Agenda	9
JUNIOR RESIDENT CASE PRESENTATIONS.....	11
Third Year Resident Case Presentations and Objectives	12
Eloho Akpovi, MD.....	15
Elizabeth Crawford, MD	16
Shebani Dandekar, MD	17
Alyssa Gonzalez, MD	18
Kristen Hardy, MD.....	19
Tien Le, DO	20
Justine Maher, MD.....	21
Visiting Professor Symposium Lecture.....	22
Faculty Symposium Lecture	23
SENIOR RESIDENT RESEARCH PRESENTATIONS.....	24
Fourth Year Resident Research Presentations and Objectives	25
Joris Ramstein, MD	28
Patrick Peñalosa, MD	29
Oluwatoni (Toni) Faithful Okuyemi, MD	30
Ann Nguyen Pham, MD.....	31
Helena Hong, MD.....	32
Danielle Greenberg, MD	33
Melissa Chambers, MD	34
Thank you	35



CME Activity Statement

Purpose: The purpose of this activity is to provide specific health care diagnostic and intervention guidelines in the field of Obstetrics and Gynecology. The guidelines presented by practicing experts and will be based upon the latest research in evidence-based medicine. In addition to a wide-ranging number of medical topics presented, the content of the presentations will address nationally-established competencies as pertaining to the field of Obstetrics and Gynecology. At the end of the activity, participants will have an up-to-date understanding of some of the best clinical approaches for Women's Health Care.

Target Audience: This activity is developed for practicing obstetricians and gynecologists, other physicians, allied health professionals, physicians in training, and other professionals who provide care for women.

Activity Objectives: At the conclusion of this activity, the participants should be able to:

1. Determine demographic and socioeconomic trends in pregnant population at a federally qualified health center.
2. Compare the effect of histology on overall survival in a cohort of patients with surgically treated high-risk early-stage cervical adenocarcinoma versus squamous cell carcinoma.
3. Determine the incidence of concern for retained products of conception in the Emergency Department setting.
4. Compare maternal outcomes in patients with preeclampsia with severe features who received both long- and short-acting antihypertensives to those who received only short-acting agents.
5. Determine the utility of serial fetal growth ultrasounds in cases of isolated two vessel umbilical cords.
6. Examine trends in mortality of cervical cancer among various racial/ethnic groups in the United States
7. Define chronic pelvic pain and identify common causes

Accreditation Statement: The University of California, Irvine School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Designation Statement: The University of California, Irvine School of Medicine designates this live activity for a maximum of 7 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

California Assembly Bill 1195 and 241: This activity is in compliance with California Assembly Bill 1195 and 241, which require CME activities with patient care components to include curriculum in the subjects of cultural and linguistic competency & implicit bias. It is the intent of AB 1195 and AB 241 to encourage physicians and surgeons, CME providers in the State of California, and the Accreditation Council for Continuing Medical Education to meet the cultural and linguistic concerns of a diverse patient population and reduce health disparities through appropriate professional development. Please see the CME website, www.meded.uci.edu/cme, for AB 1195 and AB 241 resources.

Faculty:

Victoria Handa, MD, MHS
Division Director and Professor
Co-Director, Johns Hopkins
Bayview Women's Center for
Pelvic Health and Reconstructive
Surgery
Urogynecology and Reconstructive
Surgery
Department of Obstetrics and
Gynecology
Johns Hopkins University School of
Medicine

Robert E. Bristow, MD, MBA, FACOG, FACS
Professor & Department Chair
The Edward J Quilligan, MD Endowed Chair
in Obstetrics & Gynecology, Department of
Obstetrics & Gynecology, UCI School of
Medicine

**Krishnansu S. Tewari, MD,
FACOG, FACS**
Professor, Director of Continuing Medical
Education, Department of Obstetrics &
Gynecology, UCI School of Medicine

Julia Bregand-White, MD
Assistant Professor and Residency
Program Director of Obstetrics &
Gynecology, UCI School of Medicine

Laura E. Fitzmaurice, MD
Associate Professor and Associate
Residency Program Director of
Obstetrics & Gynecology, UCI School of
Medicine



Disclosure Statement

Friday, May 3, 2024

UCI OCME requires that the content of CME activities and related materials provide balance, independence, objectivity, and scientific rigor. Planning must be free of the influence or control of an ineligible company (those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients), and promote improvements or quality in healthcare. It is the policy of the UCI Office of Continuing Medical Education to insure balance, independence, objectivity, and scientific rigor in all its educational activities. All faculty and planners participating in UCI accredited CME programs are required to disclose to the activity participants any real or apparent conflict(s) of interest. This pertains to relationships with pharmaceutical companies, biomedical device manufacturers, or other corporations that may be considered ineligible companies. The intent of this policy is identifying potential conflicts of interest so participants can form their own judgments with full disclosure of the facts. It remains for the participants to determine whether the speaker's outside interests reflect a possible bias in either the exposition or the conclusions presented.

The following speakers/planners have indicated they have no relevant financial relationships to disclose:

Victoria Handa, MD, MHS Robert E. Bristow, MD, MBA Krishnansu S. Tewari, MD Julia Bregand-White, MD Laura E. Fitzmaurice, MD Rachel Perry, MD, MPH Olivia Chang, MD Lena Nguyen	Eloho Akpovi, MD Elizabeth Crawford, MD Shebani Dandekar, MD Alyssa Gonzalez, MD Kristen Hardy, MD Tien Le, DO Justine Maher, MD	Joris Ramstein, MD Patrick Peñalosa, MD Oluwatoni (Toni) Faithful Okuyemi, MD Ann Nguyen Pham, MD Helena Hong, MD Danielle Greenberg, MD Melissa Chambers, MD
--	--	---

All those in control of content have nothing to disclose, except the following:

Krishnansu S. Tewari, MD, as activity director, has disclosed that he is a member of the speakers' bureau for Merck, Astra Zeneca and Clovis. Dr. Tewari further discloses that he will submit the program's curriculum in advance for peer review, and will defer to Robert E. Bristow, MD, MBA in the planning of any content related to his disclosure information.

Victoria Handa, MD, MHS, has disclosed that she has no financial relationships.

This educational activity may contain discussion of unlabeled and/or investigational uses of agents that are not approved by the FDA. Please consult the prescribing information for each product.

The views and opinions expressed in this activity are those of the faculty and do not necessarily reflect the views of the University of California, Irvine School of Medicine.



Welcomes Our Visiting Professor and Moderator



Victoria Handa, MD, MHS

Division Director and Professor
Co-Director, Johns Hopkins Bayview Women's Center
for Pelvic Health and Reconstructive Surgery
Urogynecology and Reconstructive Surgery
Department of Obstetrics and Gynecology
Johns Hopkins University School of Medicine

Dr. Victoria Handa is the director of the Department of Gynecology and Obstetrics at Johns Hopkins Bayview Medical Center. She is also a professor in the Johns Hopkins Medicine Department of Gynecology and Obstetrics and director of the Women's Center for Pelvic Health and Reconstructive Surgery. She holds a joint appointment in the Department of Epidemiology at the Johns Hopkins Bloomberg School of Public Health. Her areas of clinical expertise include pelvic floor disorders and female incontinence. Dr. Handa offers surgical and nonsurgical treatments for pelvic organ prolapse, incontinence and related conditions.

Dr. Handa earned her undergraduate degree in civil engineering from Princeton University. She earned her M.D. from the University of Pennsylvania School of Medicine and completed her residency in obstetrics and gynecology at the University of California, San Francisco. She completed a fellowship in urogynecology at the University of California, Irvine, and later earned a Master of Health Science in epidemiology from the Johns Hopkins Bloomberg School of Public Health. Dr. Handa joined the Johns Hopkins faculty in 2001.

Prior to joining Johns Hopkins, Dr. Handa was chief of the Division of Gynecology and director of urogynecology at the University of California, Davis.

Dedicated to scientific research, Dr. Handa has published numerous peer-reviewed research articles and several book chapters on pelvic floor disorders and urogynecology. Her research is supported by several National Institutes of Health grants and has led to many scientific findings and a 2011 award from the American College of Obstetricians and Gynecologists.

Dr. Handa is a member of several scientific societies, including the American Urogynecologic Society and the International Urogynecology Association. She currently serves on the editorial board of Female Pelvic Medicine and Reconstructive Surgery. She is a peer reviewer for numerous medical journals, including the American Journal of Obstetrics and Gynecology, Neurourology and Urodynamics, and the Journal of Female Pelvic Medicine and Reconstructive Surgery. Dr. Handa has been listed in Best Doctors in America since 2005.



Previous Annual Residents Paper Day Visiting Professors and Moderators

1983

Jack Pritchard, MD

University of Texas, Dallas

1993

John C. Hobbins, MD

University of Colorado

1984

Edward J. Quilligan, MD

University of Wisconsin

1994

Daniel R. Mishell, Jr., MD

University of Southern California

1985

Leon Speroff, MD

Case Western Reserve, Ohio

1995

Moon Kim, MD

Ohio State University

1986

William T. Creasman, MD

Duke University, North Carolina

1996

Sergio Pecorelli, MD

European Institute of Oncology, Italy

1987

Robert Resnik, MD

University of California, San Diego

1997

Valerie M. Parisi, MD

Stony Brook University, NY

1988

Felix N. Rutledge, MD

University of Texas Cancer Center

1998

Edward J. Quilligan, MD

University of California, Irvine

1989

Jennifer R. Niebyl, MD

University of Iowa

1999

Yuji Murata, MD

Osaka University Medical School, Japan

1990

Byron J. Masterson, MD

University of Florida

2000

Matthew F. Kohler, MD

Medical University of South Carolina

1991

William Droegemuller, MD

University of North Carolina

2001

Steven L. Clark, MD

University of Utah Health Science Center

1992

Norman F. Grant, MD

University of Texas, Dallas

2002

Patricia Braly, MD

Hematology and Oncology Specialist



2003

Charles J. Lockwood, MD

Yale University School of Medicine

2004

R. Jeffrey Chang, MD

University of California San Diego

2005

Linda Brubaker, MD, FACOG, FACS

Loyola University Health Systems

2006

Ray O. Bahado-Singh, MD

Wayne State University

2007

Thomas J. Garite, MD

University of California, Irvine

2008

Larry J. Copeland, MD

The Ohio State University College of Medicine

2009

Philip Darney, MD, MSc

University of California, San Francisco

2010

Robert Bristow, MD, MBA

The Johns Hopkins Hospital, Maryland

2011

David F. Lewis, MD

University of Cincinnati, Ohio

2012

Gautam Chaudhuri, MD, PhD

University of California, Los Angeles

2013

Charles Nager, MD

University of California, San Diego

2014

Pasquale Patrizio, MD

Yale University Medical Center

2015

Eve L. Espey, MD

The University of New Mexico

2016

Brian K. Iriye, MD

University of New Mexico, School of Medicine

2017

Marlene Corton, MD

University of Texas

Southwestern Medical Center

2018

Dennis S. Chi, MD

New York University School of Medicine

2019

Brigid K. McCue, MD

Albert Einstein College of Medicine

2020

Anne R. Davis, MD

Columbia University Vagelos College of Physicians and Surgeons

2021

Richard J. Paulson, MD

University of California Los Angeles

2022

Kimberly Kho, MD, MPH

Baylor College of Medicine

2023

Cynthia Gyamfi-Bannerman, MD, MSC, FACOG

University of Miami School of Medicine



Acknowledgements

Victoria Handa, MD, MHS

Division Director and Professor

Co-Director, Johns Hopkins Bayview Women's Center for Pelvic Health and Reconstructive Surgery

Urogynecology and Reconstructive Surgery

Department of Obstetrics and Gynecology

Johns Hopkins University School of Medicine

For serving as the Distinguished Visiting Professor and Moderator for the 42nd Annual Residents Paper Day.

Dr. Donna Baick, Associate Clinical Professor, and Dr. Jennifer Jolley, Clinical Professor, for serving as judges for the 42nd Annual Residents Paper Day

Dr. Robert Bristow, Professor and Chair of the Department of Obstetrics and Gynecology, for instituting and supporting this program. We thank him for his continued support and encouragement of resident education and research.

Dr. Krishnansu Tewari, Professor, Division and CME Activity Director, and the faculty members who have supported, guided, and encouraged the residents with the process of developing, conducting, evaluating, and finalizing the work that is presented by the residents today.

The residents, fellows, faculty, and community physicians for showing their support, attendance and recognition of the hard work demonstrated by the presentations.

Dr. Julia Bregand-White, Residency Program Director; Dr. Laura Fitzmaurice, Associate Residency Program Director; Dr. Rachel Perry, Associate Residency Program Director – Research; and their staff for the coordination of this program.



Agenda

7:00 – 7:45 AM	Registration and Continental Breakfast
7:45 – 7:50 AM	Welcome and Introductions <i>Robert Bristow, MD, MBA & Krishnansu Tewari, MD</i>
7:50 – 7:55 AM	Welcome Philip J DiSaia Society Moderator <i>Felicia Lane, MD</i>
	Visiting Professor and Moderator: Victoria Handa, MD

JUNIOR RESIDENTS

8:00 - 8:10 AM	Eloho Akpovi, MD
8:10 - 8:17 AM	Discussion/Q & A
8:18 - 8:28 AM	Elizabeth Crawford, MD
8:28 - 8:35 AM	Discussion/Q & A
8:36 - 8:46 AM	Shebani Dandekar, MD
8:46 - 8:53 AM	Discussion/Q & A
8:54 - 9:04 AM	Alyssa Gonzalez, MD
9:04 - 9:11 AM	Discussion/Q & A
9:12 - 9:22 AM	Kristen Hardy, MD
9:22 - 9:29 AM	Discussion/Q & A
9:30 - 9:40 AM	Tien Le, DO
9:40 - 9:47 AM	Discussion/Q & A
9:48 - 9:58 AM	Justine Maher, MD
9:58 - 10:05 AM	Discussion/Q & A
10:05 - 10:20 AM	Evaluations and Break



PROFESSORS

10:20 – 11:15 AM	Victoria Handa, MD, MHS Symposium Lecture: “Childbirth and Female Pelvic Floor Disorders”
11:20 – 12:15 AM	Olivia Chang, MD Symposium Faculty Lecture: "Effect of Hysterectomy on the Development of Pelvic Floor Disorders”
12:15 – 1:10 PM	Lunch
1:15 – 1:40 PM	Department Photo
Photo: 1:20 PM	Meeting Location: Douglas Hospital Lobby
1:45 – 2:00 PM	Philip J. DiSaia, MD Memorial and Julianne Toohey, MD Tribute <i>Krishnansu Tewari, MD</i>

SENIOR RESIDENTS

2:00 – 2:11 PM	Joris Ramstein, MD
2:11 – 2:18 PM	Discussion/Q & A
2:19 – 2:30 PM	Patrick Penalosa, MD
2:30 – 2:37 PM	Discussion/Q & A
2:38 – 2:49 PM	Oluwatoni (Toni) Okuyemi, MD
2:49 – 2:56 PM	Discussion/Q & A
2:57 – 3:08 PM	Ann Nguyen-Pham, MD
3:08 – 3:15 PM	Discussion/Q & A
3:16 – 3:27 PM	Helena Hong, MD
3:27 – 3:34 PM	Discussion/Q & A
3:35 – 3:46 PM	Danielle Greenberg, MD
3:46 – 3:53 PM	Discussion/Q & A
3:54 – 4:05 PM	Melissa Chambers, MD
4:05 – 4:12 PM	Discussion/Q & A
4:15 – 6:00 PM	Adjournment and Reception



JUNIOR RESIDENT CASE PRESENTATIONS



Third Year Resident Case Presentations and Objectives

The University of California, Irvine School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The University of California, Irvine School of Medicine designates this educational activity for a maximum of 7.0 *AMA PRA Category 1 Credits™*. Each physician should claim only those credits that he/she actually spent in the activity. Drs. Eloho Akpovi, Elizabeth Crawford, Shebani Dandekar, Alyssa Gonzalez, Kristen Hardy, Tien Le, and Justine Maher have declared that they do not have a financial interest or other relationship with any manufacturer(s) of any commercial product or apparent conflict of interest related to the content of their presentation. They further state they will not be discussing the use of any unapproved/unlabeled drugs/devices.



ELOHO AKPOVI, MD



ELIZABETH CRAWFORD, MD



SHEBANI DANDEKAR, MD



ALYSSA GONZALEZ, MD



KRISTEN HARDY, MD



TIEN LE, DO



JUSTINE MAHER, MD



Time	Presenter	Presentation	Objectives
8:00 - 8:17 AM	Eloho Akpovi, MD	Sonographic features of placenta accreta spectrum (PAS) in the first trimester: a case series	1. Explore the sonographic features suggestive of PAS in the first trimester. 2. Discuss two cases of first trimester PAS with ultrasound findings suggestive of molar pregnancy and miscarriage, respectively. 3. Review the limitations of current sonographic guidelines in identifying PAS in the first trimester, before specific PAS ultrasound screening techniques would normally be utilized.
8:18 - 8:35 AM	Elizabeth Crawford, MD	Chronic disseminated intravascular coagulopathy as a complication of benign leiomyomata	1. Describe the radiologic features of leiomyoma and sarcoma 2. Review the etiology and mechanism of DIC 3. Review management of DIC
8:36 - 8:53 AM	Shebani Dandekar, MD	A rare case of an endometriotic mass in the canal of Nuck in a patient with ovarian cancer	1. Define endometriosis and review the typical presentation, evaluation, and management of endometriosis 2. Define the canal of Nuck and review the clinical presentation, diagnostic features, and management of endometriosis in the canal of Nuck 3. Discuss atypical sites of endometriosis
8:54 - 9:11 AM	Alyssa Gonzalez, MD	Early-Onset Intrahepatic Cholestasis of Pregnancy Resulting from a Genetic Mutation	1. Identify causes of hyperbilirubinemia and jaundice in pregnancy 2. Review the differential diagnosis for early-onset intrahepatic cholestasis of pregnancy 3. Compare the management of intrahepatic cholestasis diagnosed in the first and second halves of pregnancy.
9:12 - 9:29 AM	Kristen Hardy, MD	A Unique Presentation of Metastatic Melanoma to the Cervix	1. Identify the differential of a cervical mass 2. Review clinical management of cervical masses 3. Identify the prevalence of malignancies that metastasize to the cervix



9:30 - 9:47 AM	Tien Le, DO	Persistent elevated β -hCG after two Dilation and Curettages of a Cesarean Scar Pregnancy	1. Review the epidemiology and diagnosis of CSP 2. Describe the different management options for CSP 3. Discuss the evidence supporting dilation and curettage as an option for primary treatment 4. Describe risk factors for failing dilation and curettage
9:48 - 10:05 AM	Justine Maher, MD	Metastatic Pancreatic Adenocarcinoma in Masquerading as Recurrent Pancreaticobiliary Disease in Pregnancy: A Case Report and Review of the Literature	1. Describe the epidemiology of A) cancer in pregnancy B) pancreatic cancer 2. Review the workup, staging, and management of pancreatic cancer Explore the unique challenges experienced by pregnant patients with terminal illness.



“Sonographic features of placenta accreta spectrum (PAS) in the first trimester: a case series”

Eloho Akpovi, MD

Janet Jacobson, MD, MS¹

Amy Tressan, MD²

1. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA
2. Planned Parenthood of Orange and San Bernardino Counties, Anaheim, California, USA

Objectives: First trimester placenta accreta spectrum (PAS), although a rare occurrence, results in severe maternal morbidity when a timely diagnosis is not made. However, the non-specific ultrasonographic features used for identification of first trimester PAS often resemble that of other, more familiar diagnoses. Here, we describe two cases of first trimester PAS with ultrasound findings suggestive of molar pregnancy and miscarriage, respectively.

Case 1: 33-year-old G7P6 with IUP measuring 11w0d and ultrasound notable for cystic changes and features concerning for molar pregnancy (Figure 1). Dilation and suction evacuation of the uterus resulted in intraoperative hemorrhage. The patient subsequently underwent emergent exploratory laparotomy, total abdominal hysterectomy, and bilateral salpingectomy. Pathologic examination demonstrated placenta percreta.

Case 2: 25-year-old G3P2 with IUP measuring 13w1d and ultrasound notable only for a perigestational hemorrhage (Figure 2). Symptoms included ongoing vaginal bleeding and threatened miscarriage was the presumed diagnosis. Dilation and suction evacuation of the uterus resulted in perforation with intraabdominal bleeding noted. The patient subsequently underwent emergent exploratory laparotomy, total abdominal hysterectomy, and bilateral salpingectomy. Findings on pathologic examination demonstrated placenta percreta.

Conclusions: PAS impacts first trimester pregnancies before specific PAS ultrasound screening techniques would normally be utilized. With an increase in the incidence of PAS in the first trimester, there is an urgent need for standard ultrasound guidelines for its detection. Additionally, all clinicians must maintain a high index of suspicion for PAS in patients with known risk factors even in the first trimester.



“Chronic disseminated intravascular coagulopathy as a complication of benign leiomyomata”

Elizabeth Crawford, MD

Krishnansu Tewari, MD

Alyssa Bujnak, MD

1. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA

Background: Leiomyoma are the most common neoplasm in women, occurring in as many as 70%. While the majority of women with benign fibroids are asymptomatic, 25% present clinically—most commonly with symptoms of abnormal uterine bleeding, pain, and/or bulk symptoms. Rare cases of disseminated intravascular coagulopathy (DIC) have been reported in association with benign leiomyoma. Coagulopathy such as DIC is more commonly seen in malignant neoplasms such as uterine leiomyosarcoma (LMS). LMS which account for 0.29% percent of all presumed leiomyoma, are classically difficult to diagnose preoperatively. Here we report the diagnostic findings and clinical course of a case of DIC secondary to benign uterine leiomyoma.

Case: A 49 year old previously healthy female presented for shortness of breath and fatigue. She had no significant history of vaginal bleeding. Initial evaluation revealed stable vitals signs, labs significant for a hemoglobin 2.1 and imaging concerning for a 30cm solid and cystic pelvic mass with ascites, pleural effusion, and hydronephrosis.

Gynecologic malignancy was highly considered with particular concern for leiomyosarcoma. Tumor markers including LDH were unremarkable. She underwent multi-unit blood transfusion for microcytic anemia of unknown etiology. Thoracentesis and paracentesis revealed no malignant cells. She underwent exploratory laparotomy, total abdominal hysterectomy, and bilateral salpingo oophorectomy. Pathology showed multiple leiomyomata with areas of microemboli. Postoperatively she was diagnosed with DIC. By postoperative day 3 her coagulopathy had resolved.

Conclusion: This perioperative course is evidence of chronic DIC as a possible complication of large benign leiomyomata. These findings echo a small number of similar cases, implicating benign fibroids in insidious coagulopathy.



“A rare case of an endometriotic mass in the canal of Nuck in a patient with ovarian cancer”

Shebani Dandekar, MD

Robert Bristow, MD, MBA

Eduardo Garcia, MD

1. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA

Background: Endometriosis affects women worldwide, often causing symptoms of pain and infertility. In patients affected by endometriosis, endometriotic lesions are typically found in the lower abdomen, affecting female pelvic reproductive organs. However, there are rare and/or extrapelvic sites where endometriosis can implant. One rare site is the patent Canal of Nuck, which passes through the inguinal canal. In this case report, we review a rare case of an endometriotic mass found intraoperatively in the Canal of Nuck.

Case: A 43-year-old with a known past medical history of endometriosis and hysterectomy presented to the Emergency Department for multiple episodes of syncope and abdominal pain. On imaging, she was found to have a 20 cm abdominal mass and a right-sided, fluid-filled inguinal hernia. She underwent an exploratory laparotomy for abdominal mass removal and, intraoperatively, the inguinal canal demonstrated a separate 7 cm cystic mass, not a hernia as anticipated, protruding from the internal inguinal ring extending through the canal of Nuck into the right labia, which was removed. On pathology, the 20 cm abdominal mass was found to be ovarian tissue demonstrating endometrioid adenocarcinoma and the mass in the canal of Nuck was confirmed to be endometriosis.

Conclusion: Finding endometriosis in the Canal of Nuck is rare and can thereby be misdiagnosed, leading to morbidity for patients. To improve accuracy in diagnosis and expedite treatment, it is important to be aware of the various locations, including rare and/or extra-pelvic locations, where endometriosis can implant intracorporeally.



“Early-Onset Intrahepatic Cholestasis of Pregnancy Resulting from a Genetic Mutation”

Alyssa Gonzalez, MD

Ashten Waks, MD MSPH

Jonathan Steller, MD

1. Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, University of California Irvine Medical Center, Orange, California, USA

Background: Intrahepatic cholestasis of pregnancy (ICP) is a pregnancy-specific condition characterized by pruritus and elevated bile acids. It typically manifests in the third trimester of pregnancy and has been associated with hormonal and genetic factors. Early-onset ICP poses unique diagnostic challenges and may contribute to increased risks of adverse maternal and fetal outcomes. We present a case of severe ICP identified in the early second trimester and later attributed to a rare gene mutation.

Case: A 24-year-old G3P0202 patient was admitted at 17 weeks' gestation with pruritis, abdominal pain, and jaundice. Laboratory studies were notable for total bilirubin elevated to 12.1mg/dL, direct bilirubin elevated to 6.mg/dL, bile acids elevated to 234 umol/L, and normal liver function tests. Infectious serologies and abdominal imaging were unremarkable. Past medical history included early-onset ICP accompanied by jaundice in all previous pregnancies. A cholestasis gene panel was sent and revealed an autosomal recessive variant in the ABCB11 gene, which encodes a bile salt export pump and is associated with benign recurrent intrahepatic cholestasis (BRIC). The patient was co-managed with the hepatobiliary service, and her symptoms were adequately controlled with ursodeoxycholic acid, rifampin, and hydroxyzine. She labored spontaneously at 34 weeks' gestation and delivered a healthy infant.

Conclusion: This case underscores the importance of genetic evaluation in the assessment of atypical ICP, particularly in the setting of early-onset, recurrent, or treatment refractory cases. It also highlights the need for multidisciplinary management of complex cases, to include obstetricians, hepatologists, and genetic counselors.



“A Unique Presentation of Metastatic Melanoma to the Cervix”

Kristen Hardy, MD

Jill Tseng, MD

Anjali Hari, MD

1. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA

Introduction: Metastatic cancer to the cervix is uncommon due to its small size, composition of mainly dense fibromuscular components, and restricted blood supply. The incidence of melanoma metastasis to the cervix is exceedingly rare. This case highlights the importance of properly diagnosing cervical masses in order to ensure proper treatment.

Case Presentation: A 34-year-old para-0 female presented to primary care clinic with two months of heavy vaginal bleeding, lower abdominal and back pain, and malodorous discharge. On pelvic exam, a 4cm necrotic-appearing, firm, bleeding cervical mass was noted and biopsied. CT of the abdomen and pelvis revealed an ill-defined heterogeneous mass of the lower uterine segment and cervix, as well as numerous pulmonary nodules, bilateral iliac chain lymphadenopathy, a left adnexal mass, and right hepatic lobe lesions all consistent with metastatic disease. Cervical biopsy pathology results revealed malignant melanoma. Patient received 4 cycles of nivolumab and ipilimumab for metastatic melanoma and was then transitioned to monthly maintenance dose nivolumab. Repeat vaginal exam following 4 cycles of nivolumab and ipilimumab and 6 cycles of maintenance nivolumab revealed a normal appearing cervix with resolution of the mass.

Conclusion: This atypical presentation of metastatic melanoma highlights the importance of accurate pathologic diagnosis of cervical masses. Melanoma is considered one of the most aggressive carcinomas due to its highly metastatic potential and treatment resistance. The management of melanoma vastly differs from the management of a primary cervical cancer. Though this presentation is uncommon, metastasis from distant primaries should be included in the differential of cervical masses.



“Persistent elevated β -hCG after two Dilation and Curettages of a Cesarean Scar Pregnancy”

Tien Le, DO

Tabetha Harken, MD

1. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA

Background: A Cesarean scar pregnancy (CSP) occurs when embryo implantation occurs in the uterine scar from a previous Cesarean delivery. The estimated incidence ranges from 1 in 1800 to 1 in 2656 of overall pregnancies¹. Although there is no consensus on a preferred standard treatment, surgical interventions are associated with higher success rates². Dilation and curettage can be considered as a first line treatment since it is effective and easily performed.^{3,4,5} However, there will be some patients who fail D&C treatment in which case close follow up to ensure normalization of β -hCG levels and resolution of the CSP should be considered.

Case: We present a case of a CSP complicated by persistent elevated β -hCG levels after two unsuccessful ultrasound-guided dilation and suction curettages. The patient is a 40 year old with three prior Cesarean deliveries and bilateral tubal ligation who underwent in vitro fertilization of a single embryo transfer. She was diagnosed with a Cesarean scar pregnancy at 5 weeks gestation. She strongly desired fertility sparing treatment and underwent a dilation and suction curettage. Subsequent monitoring of β -hCG showed rising levels after an initial decline. On postoperative day 10 from the first suction curettage, the patient underwent a repeat curettage in addition to Foley balloon placement. The patient again had an initial decline in β -hCG levels followed by a plateau. On postoperative day 22 from the initial procedure, she elected to have placement of a Foley balloon in the clinic and was given one dose of methotrexate. β -hCG finally down-trended to near undetectable levels.

Conclusion: Although dilation and curettage is an effective treatment option, some patients may need closer follow up to ensure complete resolution of the pregnancy or to determine if re-intervention is indicated.



“Metastatic Pancreatic Adenocarcinoma in Masquerading as Recurrent Pancreaticobiliary Disease in Pregnancy: A Case Report and Review of the Literature”

Justine Maher, MD

Ashten Waks, MD, MSPH¹

Megan Oakes, MD²

1. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA
2. Long Beach Memorial Miller Children's and Women's Hospital, Department of Obstetrics and Gynecology, Long Beach, California, USA

Background: Malignancy affects 0.1% of all pregnancies, with the most common types of malignancy diagnosed in pregnancy being cervical, breast, melanoma, lymphoma, and leukemia. Pancreatic cancer is less common in the pregnant population, as the average age of pancreatic cancer diagnosis is 72 and less than 3% of patients diagnosed with pancreatic cancer are of reproductive age. Only 29 cases of pancreatic adenocarcinoma diagnosed during pregnancy have ever been published. We present the case of a previously healthy patient who presented with abdominal pain, jaundice, and unintentional weightloss in the second trimester and was ultimately diagnosed with pancreatic adenocarcinoma.

Case: This 35-year-old Hispanic G3P1011 was admitted to a community hospital at 23w2d with suspected gallstone pancreatitis and underwent a laparoscopic cholecystectomy. The surgery was complicated by biliary tract stenosis requiring stent placement, and she was transferred to our center for higher level of care at 27w5d by 26 week ultrasound due to recurrent biliary tree stenosis with suspected stent displacement. She underwent repeat endoscopic retrograde cholangiopancreatography and stent replacement at 30w4d, during which abnormal pancreatic duct tissue was noted. CA 19-9 was elevated to 37,850 and CT demonstrated a 3.5 cm pancreatic head lesion, as well as liver and lung metastases. Liver biopsy confirmed stage IV pancreatic adenocarcinoma, and she was treated with her first cycle of FOLFOXIRI at 32w0d. She then labored at 32w3d and delivered a healthy male infant at 32w4d. Her disease progressed through 5 cycles of FOLFOXIRI and 1 cycle of gemcitabine/nab-paclitaxel, and she was transitioned to hospice before succumbing to her illness 6 months after diagnosis.

Conclusions: Early symptoms of pancreatic malignancy may mimic those common to pregnancy and other benign etiologies. With 5-year-survival rates inversely proportional to stage at diagnosis and safe treatment options available in pregnancy, obstetricians should consider pancreatic cancer as a rare, but possible, etiology for abdominal pain, jaundice, and weightloss in their patients.



“COVID-19 Vaccination Perceptions Among Patients with Gynecologic Malignancies”

Visiting Professor Symposium Lecture



“Childbirth and Female Pelvic Floor Disorders”

Victoria Handa, MD, MHS

Division Director and Professor

Co-Director, Johns Hopkins Bayview Women’s Center for Pelvic Health and Reconstructive
Surgery

Urogynecology and Reconstructive Surgery
Department of Obstetrics and Gynecology
Johns Hopkins University School of Medicine

Objectives:

- Recognize the association between childbirth and pelvic floor disorders
- Understand the historical context for obstetrical interventions intended to protect the pelvic floor
- Appreciate the role of levator injury in the development of prolapse and other pelvic floor disorders
- Understand the association between genital hiatus size and the incidence of pelvic organ prolapse



Faculty Symposium Lecture



"Effect of Hysterectomy on the Development of Pelvic Floor Disorders"

OLIVIA CHANG, MD, MPH

Assistant Clinical Professor

Department of Clinical Urology

Department of Obstetrics and Gynecology

University of California, Irvine

Objectives:

- Review the literature on the association of hysterectomy with development of pelvic floor disorders
- Identify views and values associated with the uterus
- Incorporate the literature presented to day to formulate counseling strategies to ensure patient-centered care



SENIOR RESIDENT RESEARCH PRESENTATIONS



Fourth Year Resident Research Presentations and Objectives

The University of California, Irvine School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The University of California, Irvine School of Medicine designates this educational activity for a maximum of 7.0 AMA PRA Category 1 Credits™. Each physician should claim only those credits that he/she actually spent in the activity. Drs. Melissa Chambers, Danielle Greenberg, Helena Hong, Ann Nguyen Pham, Oluwatoni (Toni) Faithful Okuyemi, Patrick Peñalosa, MD, and Joris Ramstein have declared that they do not have a financial interest or other relationship with any manufacturer(s) of any commercial product or apparent conflict of interest related to the content of their presentation. They further state they will not be discussing the use of any unapproved/unlabeled drugs/devices.



MELISSA CHAMBERS, MD



DANIELLE GREENBERG, MD



HELENA HONG, MD



ANN NGUYEN-PHAM, MD



**OLUWATONI (TONI)
FAITHFUL OKUYEMI, MD**



PATRICK PEÑALOSA, MD



JORIS RAMSTEIN, MD



Time	Presenter	Presentation	Objectives
1:45 – 2:03 PM	Joris Ramstein, MD	Pudendal Block for the Treatment of Chronic Pelvic Pain: a Randomized Control Trial	1. Define chronic pelvic pain and identify common causes 2. Evaluate whether the addition of vaginal pudendal blocks to pelvic floor physical therapy would result in lower pain reported in chronic pelvic pain patients 3. Hypothesize the mechanism of such therapy on pelvic floor pain receptors
2:04 – 2:22 PM	Patrick Penalosa, MD	Unmasking Disparities in Survival Among Asian American and Pacific Islander Women with Cervical Cancer: A National Cancer Database Analysis From 2004 to 2015	1. Examine epidemiological trends in prevention, screening and cervical cancer incidence 2. Examine trends in mortality of cervical cancer among various racial/ethnic groups in United States 3. Identify disparities in outcomes overall survival among patients with cervical cancer
2:23 – 2:41 PM	Oluwatoni (Toni) Faithful Okuyemi, MD	Stratification of Two Vessel Cord Diagnosis and Prediction of Small for Gestational Age Newborns	1. Determine the incidence of fetal growth restriction and small for gestational age births in a two-vessel cord (2VC) population stratified by risk factors. 2. Determine the utility of serial fetal growth ultrasounds in cases of isolated two vessel cord
2:42 – 3:00 PM	Ann Nguyen Pham, MD	The Role of Long-Acting Antihypertensives in Preeclampsia with Severe Features	1. Compare pregnancy prolongation in patients diagnosed with preeclampsia with severe features who received both long-acting and short-acting antihypertensive medications to patients who received only short-acting antihypertensive medications 2. Compare maternal outcomes in patients with preeclampsia with severe features who received both long- and short-acting antihypertensives to those who received only short-acting antihypertensives 3. Compare neonatal outcomes in patients with preeclampsia with severe features who received both long- and short-acting antihypertensives to those who received only short-acting antihypertensives



3:01 – 3:19 PM Helena Hong, MD

Through Thick and Thin:
Endometrial Stripe Thickness
in Suspected Retained
Products of Conception

1. Review the available literature on sonographic features of retained products of conception, and the controversial role of endometrial stripe thickness
2. Determine the incidence of concern for retained products of conception in the Emergency Department at a single academic institution
3. Determine whether there is a threshold of endometrial stripe thickness associated with a greater chance of necessitating treatment with misoprostol or dilation and curettage (D&C)

3:20 – 3:38 PM Danielle Greenberg, MD

Do the Peters criteria hold up
for adenocarcinoma? A
retrospective database study
evaluating the effect of
histology on outcomes in
surgically-treated high-risk
early stage cervical cancer

1. Review the current literature surrounding treatment of high-risk early stage cervical cancer and outcomes with regard to histology
2. Compare the effect of histology on overall survival in a cohort of patients with surgically-treated high-risk early stage cervical adenocarcinoma versus squamous cell carcinoma
3. Assess the effect of histology on the response to adjuvant treatment in patients with early stage, surgically-treated high-risk cervical cancer as defined by the Peters criteria.

3:39 – 3:57 PM Melissa Chambers, MD

Evaluating Cardiovascular Health
in Pregnancy Using the Life
Essential 8 Tool

1. Establishes a baseline value of the Life Essential 8 score in pregnant population
2. Compares the Life Essential 8 scores in pregnant persons to non-pregnant persons to assess differences in cardiovascular health during pregnancy.
3. Describes the association between Life Essential 8 score and maternal and neonatal outcomes



“Pudendal Block for the Treatment of Chronic Pelvic Pain: a Randomized Control Trial”

Joris Ramstein, MD

Felicia Lane, MD

1. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA

Introduction: Chronic pelvic pain (CPP) affects 14-24% of reproductive age women. CPP is caused by many conditions, making the diagnosis and treatment difficult. Pelvic floor tension myalgia (PFTM) is increasingly identified as a cause of CPP; as many as 85% of patients with CPP have dysfunction of the musculoskeletal system. We hypothesized that the addition of vaginal pudendal blocks to pelvic floor physical therapy (PFPT) would result in lower visual analog pain scale (VAS) than standard PFPT and placebo injection.

Methods: Patients with CPP and PFTM were randomized to pudendal blocks or placebo saline injection weekly for six weeks in a double-blinded fashion. 34 patients completed the study, 22 pudendal group, 12 control group. Primary outcome measure was VAS at 8 weeks. Secondary outcomes measured included tenderness and oxford scores, pelvic floor distress inventory, pelvic floor impact questionnaire, SF-36, female sexual function index and vaginal electromyography. Paired t-test for continuous variable and chi-square test for categorical variables were used for analysis.

Results: No statistical differences in baseline demographic characteristics between groups. VAS scales and muscle tenderness significantly improved over time for both groups (p-value <0.001 and 0.003) but no differences were observed (p-value 0.7 and 0.15). As pain and tenderness decreased, strength increased. Patients perceived less distress and negative impact on quality of life at 8 weeks.

Conclusions: The significant pain improvement is likely attributable to PFPT and perhaps dry needling of the muscle. A larger sample size is needed to detect a smaller difference in pain scores.



“Unmasking Disparities in Survival Among Asian American and Pacific Islander Women with Cervical Cancer: A National Cancer Database Analysis From 2004 to 2015”

Patrick Peñalosa, MD

Travis R. Korenaga, MD²

Jenny Chang, MPH³

Argyrios Ziogas, PhD³

Robert E. Bristow, MD, MBA²

1. Department of Obstetrics and Gynecology, University of California, Irvine, Orange, CA, USA
2. Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of California, Irvine, Orange, CA, USA
3. Department of Medicine, University of California, Irvine, Irvine, CA

Objective: To explore disparities in outcomes of Asian American Pacific Islander (AAPI) women with cervical cancer through disaggregated data analysis.

Methods: The National Cancer Database (NCDB) was queried to identify patients with all stages of cervical cancer diagnosed between 2004 and 2015. AAPI identified patients were disaggregated into geographic sub-ethnic groups: East Asian (EA), Southeastern Asian (SEA), Asian Indian/Pakistani (AI), and Pacific Islander (PI). The primary outcome was overall survival (OS). Cox proportional hazards model was fitted to evaluate the effect on survival of demographic and clinical variables.

Results: We identified 76,314 patients with cervical cancer, of which 2,326 (3%) were identified as AAPI. Compared to NHWs, PI women had worse survival (adjusted hazard ratio [aHR]= 1.30; 95% CI: 1.03-1.63; P=0.0254), while all AA sub-ethnic groups had improved survival: EA (aHR = 0.64; 95% CI: 0.54-0.75; P<0.0001), SEA (aHR = 0.82; 95% CI: 0.73-0.93; P=0.0018), and AI (aHR = 0.75; 95% CI: 0.60-0.95; P=0.0156). Compared to the aggregated AAPI group, a higher proportion of PI women with cervical cancer were younger (Age 18-39: 18.5% vs 31.3%), had public insurance (41.7% vs 47.2%), and had more comorbidities (Charlson Deyo Score ≥ 1 : 10.4% vs 15.9%) while a lower proportion of PI patients were receiving care at an Academic or Research program facility (45.2% vs 37.0%) and lived in a metropolitan area (92.5% vs 89.0%).

Conclusion: Asian American Pacific Islanders are a heterogeneous ethnic group and when analyzed as a single entity, leads to masking of significant disparities. When disaggregated, PI women have worse outcomes compared to their AA counterparts. These findings highlight the need for further disaggregated AAPI research.



“Stratification of Two Vessel Cord Diagnosis and Prediction of Small for Gestational Age Newborns”

Oluwatoni (Toni) Faithful Okuyemi, MD

Melissa Chambers, MD¹

Carol Major, MD¹

Judith Chung, MD¹

1. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA

Objectives: To determine the incidence of fetal growth restriction (FGR) and small for gestational age (SGA) births in a 2 vessel cord (2VC) population stratified by risk factors.

Methods: All anatomy and growth ultrasounds completed at the Center for Fetal Evaluation at the University of California Irvine Medical Center from January 2017 to the September 2022 were retrospectively reviewed. The patients identified in this study were divided into two groups. Those that had an isolated finding of 2VC with no other risk factors for FGR were placed in the “2VC Low Risk” category, while all others were placed in the “2VC High Risk” category. Prevalence of the following outcomes were compared between the two groups using Chi-squared and Fisher’s exact tests: fetal growth restriction, small for gestational age births, and live birth rate.

Results: A total of 180 patients with a diagnosis of 2VC were identified for our study. Of these, 172 had ultrasound reports were available for review, and 76 had delivery information available for review. We diagnosed FGR and SGA at an incidence of 25% and 46.1% respectively in the entire 2VC patient population. 138 patients were then grouped into the “High Risk” category while 34 patients were grouped into the “Low Risk” group. When stratified into “Low Risk” and “High Risk” groups, the rate of FGR was 0% and 31.2% in the “Low Risk” and “High Risk” groups respectively ($P < 0.0001$). The rate of SGA was also lower in the “Low Risk” group compared to the “High Risk” group (16.7% vs 55.2%, $P = 0.006$). Conversely, live birth rate was higher in the “Low Risk” group compared to the “High Risk” group (100.0% vs 64.4%, $P = 0.0025$).

Conclusion: The incidences of both FGR and SGA in our total 2VC population were higher than the general population incidence of 10%. However, the “Low Risk” 2VC group, essentially patients with an isolated 2VC finding and no other risk factors for FGR, were never found to be growth restricted on ultrasound, had a significantly lower rate of SGA, and a 100% live birth rate. This supports prior publications stating that if a patient falls into this lower risk group, a 2VC should be treated as a normal variant and not necessarily be followed up with interval growth evaluations.



“The Role of Long-Acting Antihypertensives in Preeclampsia with Severe Features”

Ann Nguyen Pham, MD

Kenneth Chan, MD¹

Gina Milone, MD²

1. Long Beach Memorial Miller Children's and Women's Hospital, Department of Obstetrics and Gynecology, Long Beach, California, USA
2. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA

Objective: To determine whether initiation of long-acting antihypertensives achieves pregnancy prolongation in preeclamptic patients with severe features and, if so, whether there is significant neonatal benefit gained and maternal risk incurred by this prolongation

Study Design: This was a retrospective cohort study conducted at a single site between 2015-2022. The charts of preeclamptic patients with severe features (de novo or superimposed) between 23w0d-33w6d were reviewed and separated into two cohorts: those diagnosed between 23-28 weeks gestation (extremely preterm) and those diagnosed between 28-34 weeks gestation (preterm). Each cohort was then divided into a traditional subcohort (received only short-acting antihypertensives for acute management of blood pressure) and a novel subcohort (received both short-acting and long-acting antihypertensives). The primary outcome was pregnancy prolongation, defined as days elapsed between diagnosis of preeclampsia with severe features and delivery. The secondary outcomes were maternal composite outcome and neonatal composite outcome. Two sample t-tests and Chi-squared analyses with multivariate analysis were utilized.

Results: A total of 288 patients were included. Demographics did not differ significantly. Long-acting antihypertensives prolonged pregnancy by 7 days in the Extremely Preterm cohort (9 days vs 2 days, $p < 0.0001$) and by 3 days in the Preterm cohort (6 days vs 3 days, $p < 0.0001$). Further, use of long-acting antihypertensives was associated with an 87% decrease in the neonatal composite outcome in the Extremely Preterm cohort. This was not seen in the Preterm cohort. Neither cohort saw any difference in maternal morbidity.

Conclusion: The initiation of oral long-acting antihypertensives for preeclamptic patients with severe features prolonged pregnancy sufficiently to improve newborn outcomes in the 23-28 week cohort but not in the 28-34 week cohort. Doing so did not result in maternal harm. Randomized-controlled trial results are needed to confirm these findings and to potentially adopt this clinical approach.



“Through Thick and Thin: Endometrial Stripe Thickness in Suspected Retained Products of Conception”

Helena Hong, MD

Delaney Sztraicher MD¹

Surina Khurana BA²

Nkiruka Chuba MD¹

1. Department of Obstetrics and Gynecology, University of California, Irvine Medical Center, Orange, California, USA
2. University of California, Irvine School of Medicine, Irvine, California, USA

Background: Patients presenting to the emergency department with prolonged or excessive bleeding or pelvic pain following delivery, miscarriage, or abortion should be evaluated for retained products of conception (RPOC). Estimates of the incidence of RPOC vary, but has been described as approximately 1-6% overall (1,2), with <1% following surgical abortion (3).

Data on the association between sonographic endometrial stripe thickness (EMS) and presence of pathologically proven RPOC has been mixed in the literature. This study aims to determine whether EMS predicts the need for surgical management of suspected RPOC.

Methods: This is a retrospective cohort study conducted at a single academic institution in the United States. All pages received by the Gynecology service from 4/1/2021 to 9/30/2022 (18 months) were screened for patients who met study criteria. These patients presented to the ED following delivery, spontaneous miscarriage, suspected spontaneous miscarriage, or abortion with concern for retained products of conception, and had a pelvic ultrasound measuring EMS. Data collected included patient demographics and details of clinical presentation including EMS, and recommended management. Patients were categorized into nonsurgical (expectant and medical) management, and surgical (MVA and D&C) management groups. Difference of the median EMS for nonsurgical and surgical groups was calculated. The Mann-Whitney U test was used to determine whether there is a significant difference in EMS between nonsurgical and surgical management groups.

Results: A total of 116 ED visits were included in the study, representing 112 unique patients. Of these, 68 patients (58.6%) underwent expectant management, 21 (18.1%) underwent medical management, 12 (10.4%) underwent manual vacuum aspiration, and 15 (12.9%) underwent D&C. These were grouped into nonsurgical (89, 76.7%) and surgical (27, 23.3%) groups. The median EMS of the nonsurgical group was 1.23cm, compared to the median EMS of the surgical group which was 2.20cm (difference of 0.97cm). The difference in EMS between nonsurgical and surgical groups was statistically significant (p-value <0.001, Mann-Whitney U test). The percentage of patients receiving surgical management at various values of EMS was calculated: 7.7% for EMS 0-0.5cm, 7.7% for 0.5-1.0cm, 18.2% for 1.0-1.5cm, 21.4% for 1.5-2.0cm, 40.0% for 2.0-2.5cm, 37.5% for 2.5-3.0cm, and 55.6% for >3.0cm.

Discussion: These results show an association overall between greater EMS and likelihood of surgical management. The difference in EMS between nonsurgical and surgical groups is statistically significant, and arguably clinically significant. However, EMS is only one piece of a patient's clinical presentation, and decisions for nonsurgical or surgical management should not be made based on EMS alone. Limitations of the study include possible underrepresentation of low risk patients, as there may be patients who were seen and discharged by the ED without contacting Gynecology.

Relevance: This retrospective cohort study describes the incidence of nonsurgical and surgical management for concern for retained products of conception. These results show an overall increasing likelihood of surgical management with increasing endometrial stripe thickness.



“Do the Peters criteria hold up for adenocarcinoma? A retrospective database study evaluating the effect of histology on outcomes in surgically-treated high-risk early stage cervical cancer”

Danielle Greenberg, MD

Robert Bristow, MD, MBA^{1,2}

Jenny Chang, MPH³

Brittany File, MD²

Travis Korenaga, MD²

Argyros Zyogas, PhD³

1. Department of Obstetrics and Gynecology, University of California, Irvine, Orange, CA, USA
2. Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of California, Irvine, Orange, CA, USA
3. Department of Medicine, University of California, Irvine, Irvine, CA

Objective: The aim of this study was to assess the effect of histology on the response to adjuvant treatment in patients with early stage, surgically-treated high-risk cervical cancer as defined by the Peters criteria.

Methods: The National Cancer Database (NCDB) database was queried for women with stage 1a2-2a squamous cell carcinoma (SCC) and adenocarcinoma (AC) of the cervix who underwent radical hysterectomy with complete lymphadenectomy and qualified as high-risk as defined by the Peters criteria¹: the presence of positive margins, parametrial invasion, or positive lymph nodes. The primary outcome was overall survival (OS). Multivariate analyses (MVA) using proportional hazards model was used to investigate the prognostic significance of histological subtype on the response to adjuvant treatment.

Results: A total of 1,734 patients met inclusion criteria including 1,273 patients with SCC (73%) and 461 patients with AC (27%). AC was associated with worse OS in all patients ($p=0.004$, HR 1.38, CI 1.11-1.73). In subset analysis, among patients who received radiation and chemotherapy (CCRT), patients with AC had significantly worse OS than patients with SCC ($p=0.041$, HR 1.35, CI 1.01-1.79). There was no difference in OS between patients with AC and SCC who received no treatment or radiation (RT) only. On MVA of all patients meeting Peters criteria regardless of histology, there was no significant difference in OS between patients who received no treatment versus CCRT, RT, or chemotherapy (CT). Within-cohort MVA of patients with AC demonstrated no relationship between OS and CCRT, RT, or CT versus no treatment. Similarly, no difference in OS was found in a within-cohort analysis of SCC between patients who received CCRT, RT, or CT versus no treatment.

Conclusions: AC histology appears to be a significant prognostic factor in surgically-treated high-risk early stage cervical cancer. When stratified by treatment, the effect of histology on survival only persists in patients who received CCRT. These findings suggest that standard of care treatment is less effective in patients with AC. However, in all patients with high-risk disease regardless of histology, adjuvant treatment with CCRT was not associated with improved OS in our cohort, contrary to prior studies. These results may be attributed to the retrospective nature of our data. We suggest further investigation is needed into the stratification and treatment of early stage cervical AC as a separate entity.



"Evaluating Cardiovascular Health in Pregnancy Using the Life Essential 8 Tool"

Melissa Chambers, MD

Heike Thiel De Bocanegra, PhD, MPH

Afshan Hameed, MD

1. Department of Obstetrics and Gynecology, University of California, Irvine-Medical Center, Orange, California, USA

Objective: This study establishes a baseline value of the Life's Essential 8 (LE8) score in pregnant population and compares the Life's Essential 8 scores to non-pregnant persons to assess differences in cardiovascular health.

Study Design: This is a descriptive study using survey data from pregnant participants at the Family Health Center in Santa Ana who were 18 years and older at any gestational age. Patients were consented and completed a self-administered Redcap survey in English or Spanish. All patients provided consent to extract clinical data from the electronic health record. The Life Essential 8 survey data, incorporating 8 components (healthy diet, physical activity, avoidance of nicotine, healthy sleep, body weight, cholesterol levels, blood glucose, and blood pressure) was collected by residents and medical students over a 5-month period (11/2023 to 4/2023). On the scale from 0 to 100, the higher the score is associated with better cardiovascular health and the lower score is associated with worse cardiovascular health. Life Essential 8 scores were calculated for each component and summed to obtain a total score. These scores were compared to Life Essential 8 data of non-pregnant individuals.

Results: A total of 62 patients participated in the survey. The overall average LE8 score in the pregnant population compared to the non-pregnant population was 69.3 and 68.1 respectively showing that cardiovascular health improves slightly in pregnancy. The average LE8 score among pregnant people compared to non-pregnant people was higher for blood pressure (91.2 vs 72.8), blood glucose (87.9 vs 80), total cholesterol (71.4 vs 69.9), tobacco use (94.4 vs. 75.1) and lower for sleep health (82.9 vs 85.3), physical activity (44.7 vs 49.2), body mass index or BMI (51.3 vs 57.1), and diet (42.1 vs. 42.9).

Conclusion: Overall, the LE8 score in the pregnant population is slightly higher than in the non-pregnant population. The average blood pressure score is likely a higher in pregnancy due to our knowledge that blood pressure decreases in pregnancy. Blood glucose levels (measured by A1C or fasting blood glucose) in pregnancy were found to be lower, resulting in higher LE8 scores. Similarly, total cholesterol levels are expected to rise in pregnancy, corresponding to lower LE8 scores. However, higher cholesterol scores were seen in pregnancy. We found there to be a strong motivation to reduce or stop tobacco use in pregnancy due to higher LE8 scores. Pregnant women receive fewer hours of sleep possibly due to physical discomfort. Exercise and physical activity are lower in pregnancy perhaps due to physical limitations, lack of energy, or time. BMI is expected to increase in pregnancy due to the growing fetus. Lastly, a healthy diet in pregnancy is less common possibly due to the tendency to prefer specific food types. These results provide a baseline for the use of the LE8 in future studies of pregnant people.



Thank you for attending the Forty-Second Annual Residents Paper Day and Thirty-Fifth Annual Philip J. DiSaia Society Symposium

Access the CME Evaluations and certificate on [CloudCME](#).

Activity ID: 431