AGL 2022

51st GLOBAL CONGRESS ON MIGS

December 1–4, 2022 | Gaylord Rockies Resort and Convention Center | Aurora, Colorado

SYLLABUS

OBS 601: Complex Obstetric Surgery for the MIG Surgeon

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The following members of AAGL have been involved in the educational planning and/or review of this course (listed in alphabetical order by last name).

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Caitlin Jago, MD, MSc
Moderator: Hologic
Ally Murji, MD, MPH*

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The following have agreed to provide verbal disclosure of their relationships prior to their presentations. They have also agreed to support their presentations and clinical recommendations with the "best available evidence" from medical literature (in alphabetical order by last name).

Saketh Guntupalli, MD*
Caitlin Jago, MD, MSc
Moderator: Hologic
Ally Murji, MD, MPH*
Sukhbir Sony Singh, MD, FRCSC
Consultant: Bayer HealthCare, AbbVie; Speakers Bureau: Myovant Sciences, Ethicon Endo-Surgery

OBS-601: Complex Obstetric Surgery for the MIG Surgeon

Co-Chairs: *Ally Murji, MD, MPH, Caitlin Jago, MD, MSc*

Faculty: *Sukhbir Sony Singh, Saketh Guntupalli, MD*

Course Description

As MIG surgeons, we are advanced pelvic surgeons and are often called upon by our obstetrician colleagues to deal with challenging pregnancy-related pathology. This course highlights the practice that exists between the intersection of obstetrics and surgical gynecology. The program will focus on the surgical approaches to Placenta Accreta Spectrum Disorder (PASD), cesarean scar pregnancy, management of complex retained products of conception, and complex cesarean deliveries (fibroids, endometriosis and more). The course will focus on surgical nuances and techniques and will also afford an opportunity for Q&A with the experts.

Learning Objectives

At the conclusion of this course, the participants will be able to: 1) Utilize surgical techniques to approach PASD and manage blood loss for this condition; 2) Identify the challenges in diagnosis of cesarean scar pregnancy and provide algorithm for management; 3) Compare techniques to evaluate and hysteroscopically manage retained products of conception; and 4) Consider different approaches to challenging cesarean sections in the context of fibroids, endometriosis, and more.

Course Outline

7:00 am	Welcome, Introduction and Course Overview	A. Murji/C.A. Jago
7:05 am	Approach to Placenta Accreta Surgery	S. Gunupalli
7:40 am	Cesarean Scar Pregnancy	A. Murji
8:10 am	Retained Products of Conception - Beyond D&C	C. Jago
8:40 am	The Difficult Cesarean (Fibroids, Endometriosis & More)	S.S. Singh
9:10 am	Questions & Answers	All Faculty
9:30 am	Adjourn	

The Placenta Accreta Response Team : The Denver Approach

Saketh R. Guntupalli, MD, FACS
Professor and Director
Vice Chair for Faculty Affairs
Department of Obstetrics and Gynecology
University of Colorado School of Medicine
Director, Placenta Accreta Response Team
University of Colorado Hospital

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Disclosures

- I have no relevant disclosures for this talk.

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Background

- The case of JA….
- 29yo G3P2 presents at 31 weeks gestation with complaints of vaginal spotting
- She has a history of 2 prior cesarean deliveries
- No other signficant medical history
- She is also a Jehovah's Witness patient and refuses all blood products

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Background To Our Program

- JA is admitted to the antepartum service and placenta percreta is noted on ultrasound and confirmed with MRI
- Gynecologic oncology is "curbsided" and told of the case to the fellow and attending who "acknowledge" the case
- MFM service manages her antepartum care with a rotating faculty each weak
- Both faculty make a plan for delivery…….but the faculty both change before delivery…both disagree on plan
  - MFM recommends proceeding with hysterectomy
  - GYN oncology recommends consideration of in-situ treatment with methotrexate

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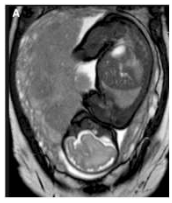
Background To Our Program

- JA begins to bleed unexpectedly at 32 weeks at 4pm
- She is taken to the OR by two different faculty members
- She undergoes cesarean delivery of a health male fetus….
  - She begins to hemorrhage→ hysterectomy is performed
  - Her total EBL is 3000cc; cell saver and other products are used
  - Her hemoglobin falls to 4.3 and she is transferred to the the ICU
  - JA died 4 hours later from cardiovascular collapse



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Key "take aways" from this case…

- Poor communication between the obstetric team and the gynecologic service on both sides
- Multiple changes in attending all of who had different plans
- Lack of identified "go-to" faculty member
- Lack of anesthesia and interventional radiology involvement until late in the case
- Acute change in the patients condition that was unexpected

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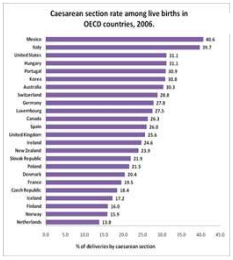
Disorders of Placentation

Definition

- Placenta that is abnormally adherent to the uterus
- Increta: Invades the myometrium (>50%)
- Percreta: Invades the serosa or adjacent organs
- Accreta: Invades into myometrium of uterus

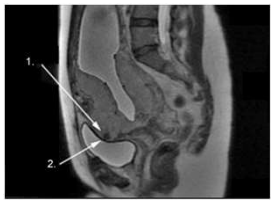
CS rates among Organisation for Economic Co-operation and Development Countries, 2014



- As cesarean delivery rates increase throughout the developed world, so too do complications rates
- In the developed world, mechanisms exist by which to address these complex obstetrical issues
- In the developing world, as cesarean deliveries risk however, mechanisms are not as well developed to address theses issues
  - Assisted reproductive technologies
  - Placental disorders
  - Obstetric hemorrhage

Abnormal placentation

- Placenta accreta is associated with increase maternal & fetal adverse outcomes
- Antepartum hemorrhage often leads to PTD and in some cases < blood flow to fetus
- In addition to hemorrhage, mother at > risk for complications of ERCS, placenta accreta and peripartum hysterectomy



Cesarean Delivery remains the most substantial risk factor

- Women with ≥ 1 prior cesarean 2.6 times > risk for previa than those delivered vaginally
- Dose response with an increasing risk of previa with increasing numbers of cesareans in 4 studies that provided information on # CS

The association of placenta previa with history of cesarean delivery
Ananth CV, Smulian JC, Vintzileos AM: Am J Obstet Gynecol 1997

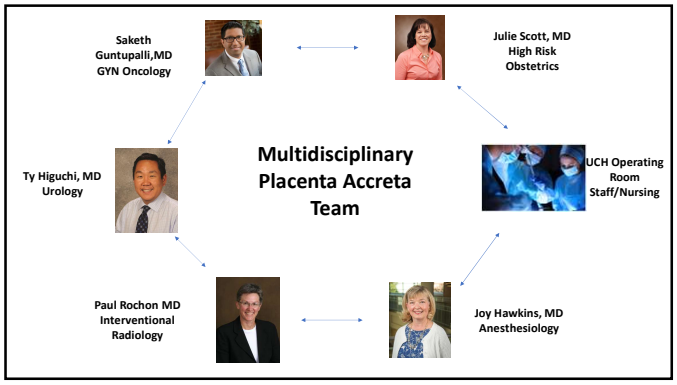
Surgical Considerations

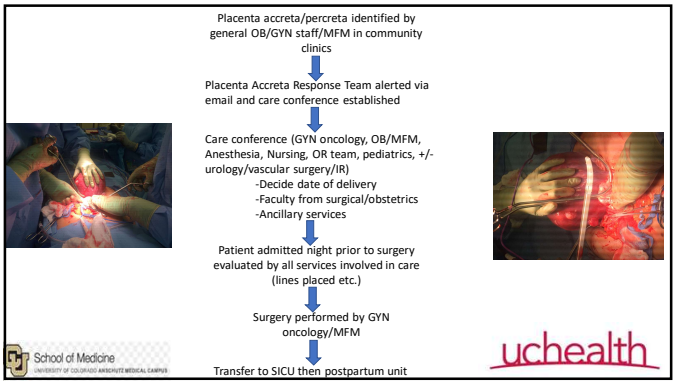
- Average blood loss 3,000 – 5,000 mL at the time of delivery
- Most common surgical complication cystotomy (often intentional)
- Ureteral injury in 10 – 15% of cases
- Less common injuries to bowel, pelvic nerves and large vessels and vesico-vaginal fistulas

Hudon L et al: Diagnosis and management of placenta percreta: a review. Obstet Gynecol Surv 1998

Program at University of Colorado Hospital

- We have a unique, multidisciplinary program at UCH
  - Gynecologic oncology "heavy"
  - Significant input from surgical teams including vascular surgery, urology, interventional radiology
  - Anesthesia colleagues are intimately involved in the preoperative care
  - Significant financial and marketing support from UCHealth system
  - Now major referral center for the entire Rocky Mountain region





Outcomes of the P.A.R.T program at UCH

- N=52 as of 10/2017
- After the establishment of the program we have seen
  - Improved communication between services
  - More predictability in availability of surgical staff
  - Dedicated faculty who self identified as wanting to do these cases
  - Increase in referral base from outside physicians who have heard of the program
  - Improved patient satisfaction by meeting surgical colleagues prior to surgery

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Outcomes of the PART program at UCH

- Improved communication between services
  - Strong collegial relationship between gynecologic oncology and maternal fetal medicine
  - Improved communication between ancillary services such as urology and vascular surgery with input only as needed
  - Improved relationship with the hospital
    - Marketing of high risk obstetric services
    - Gynecologic oncology surgical expertise
    - Emergency privileges for non UCH providers to involved in OB care
    - Increase revenue stream as a result of marketing by the hospital for this program

Maternal outcomes

	Post Accreta Program	Pre Accreta Program	*P*-value
EBL	2600cc	3400cc	NS
Transfusion rate	3.7 units	4.7 units	NS
Length of hospital stay	4 days	5 days	NS
Readmission rate	4%	8%	NS
Maternal death	0	1	.001
Accreta diagnosed prior to surgery	83%	53%	.03
Emergent surgery rate	33%	64%	.03

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Maternal Outcomes

	Post Accreta Program	Pre Accreta Program	*P* value
ICU length of Stay	.79 days	.50 days	.26
Hysterectomy time	178 minutes	190 minutes	.85
Infectious Complication	1	2	.65
Cystotomy rate	3	3	.84
Ureteral Injury	1	0	.92
Bowel Injury	1	1	NS
Decrease in hematocrit points pre and post op	11	14	.1

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Neonatal outcomes

	Post Acrreta	Pre Accreta	P value
Neonatal birth weight	2291 grams	2551 grams	.14
Transient Tachypnea	2	1	.45
RDS	10	11	.86
IVH	0	1	N/a
Neonatal death	0	1	N/a

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Tips and Tricks

- Plan ahead, Plan Ahead, Plan Ahead
- Ensure appropriate blood products (don't wait till night before to type and cross)
- Communicate effectively with the anesthesia team
- Call for help when needed
- Utilize interventional radiology

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Tips and Tricks

- New age surgical instruments are your friend!
- Ureteral stents?
- Iliac/Aortic balloons?
- Vessel sealers
  - Ligature device (dolphin tip and impact)
  - Enseal device
  - Endo vascular stapler

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A patient story….

- http://cbsloc.al/2BeQ8tV

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Conclusions

- A multidisciplinary team to approach to placental abnormalities improves patient outcomes and collegial relations between services
- A step wise, approach incorporating all necessary services allows for better planning of complex cases
- Development of these programs is relatively simple and cost-effective

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Acknowledgements

- Entire team of gynecologic oncologists and MFM specialist at the University of Colorado
- Ancillary services and OR teams
- UCHealth, University of Colorado
- Dr John Kingdom, University of Toronto

Cesarean Scar Pregnancy

Ally Murji MD MPH
Mount Sinai Hospital, University of Toronto, Toronto, ON, Canada

Disclosure

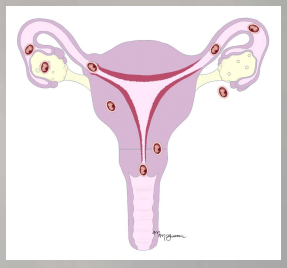
- If you have **NO** financial relationships, please insert the following statement
  "**I have no financial relationships to disclose**"

Learning Objectives

- Review the epidemiology of Cesarean Scar Pregnancy (CSP)
- Identify the two types of CSP
- Describe management options for the various CSP types

Epidemiology

- First described in 1978
- 20 cases reported before 2001
- 1/531 - 1/2500 women with previous CS
- 6% of EP in women with previous CS

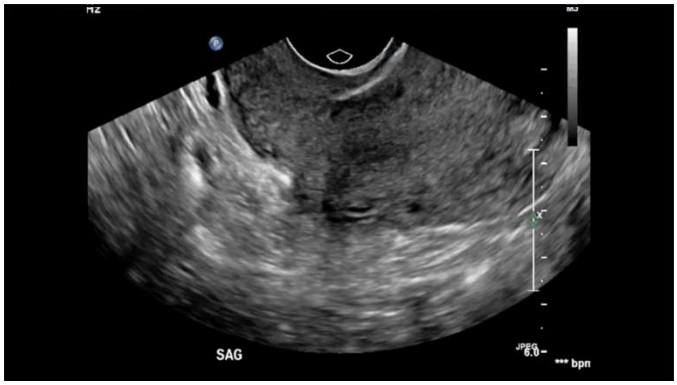


Epidemiology

- **Increasing C/S rates worldwide**
  - Canadian CS rates:
    - 17.6% in 1993 → 26.3%
- **Increasing complications in subsequent pregnancies:**
  - Uterine rupture
  - Placenta accreta spectrum
  - Placental abruption
  - Cesarean scar pregnancy

Sonographic Criteria

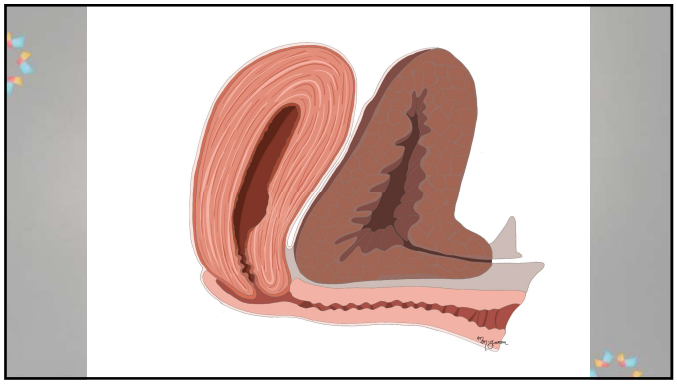
- Pregnancy located in the anterior uterine isthmus
- Empty uterine cavity with no contact with the GS
- Empty cervical canal
- Discontinuity in the anterior myometrium (or absence of myometrium between the GS and bladder)
- No suspicious adnexal masses or FF



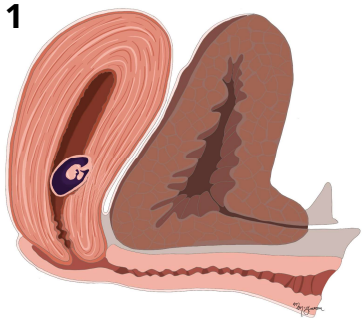
There are 2 types of CSP

- TYPE 1 – grows into the uterus
- TYPE 2 – grows into the abdomen

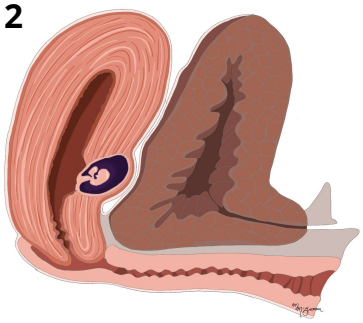
The type of CSP affects management



Type 1



Type 2



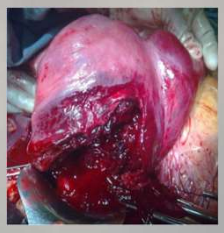
Type 1 vs. Type 2 CSP

Type 1 CSP:
Growth into the uterus

Type 2 CSP:
Growth toward the abdomen

Natural Progression

Type 1 CSP



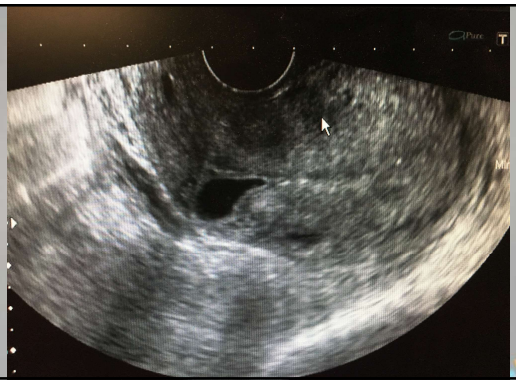
Type 2 CSP

Case 1: Midtrimester Hemoperitoneum

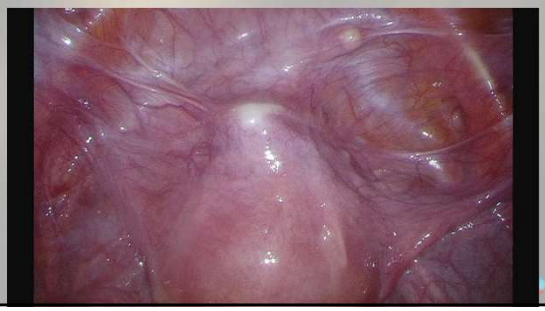
39 year-old G7P3 with 3 previous cesarean sections presented to a community hospital at 17^2 weeks gestation.

- Acute abdominal pain and drop in hemoglobin.
- Inconclusive Computed Tomography and ultrasound. Received 1 unit pRBC and taken for exploratory laparoscopy by General Surgery for presumptive diagnosis of appendicitis.

Cansagevideos.com



Sometimes its not so clear…



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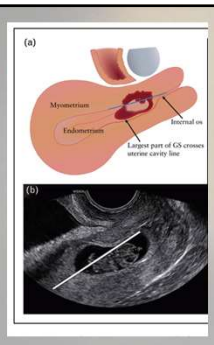
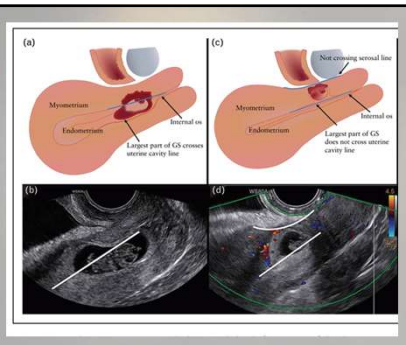


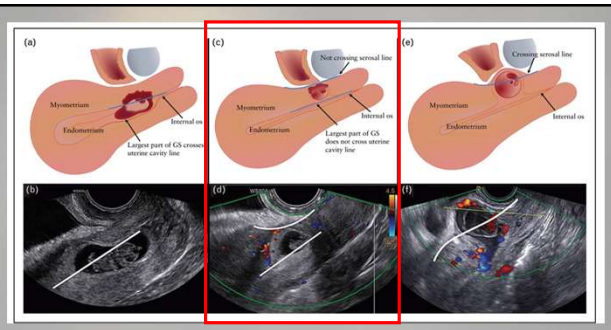
Type 1

Jordans et al 2022



Type 1

Jordans et al 2022



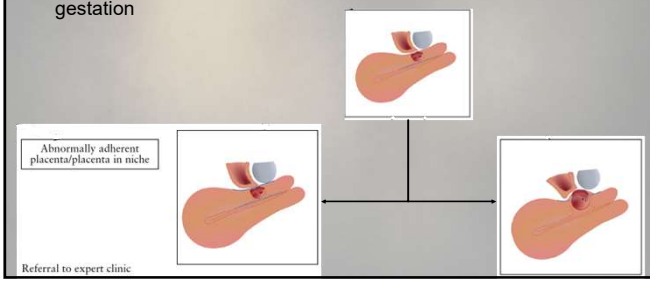
Type 1

Type 2

Jordans et al 2022

Classification is fluid

Classification of CSP is not fixed and may change with advancing gestation



Management

- Hemodynamic stability
- Gestational Age
- Viability of pregnancy
- Residual myometrial thickness
- Vascularity around the pregnancy
- Patient preferences
- Physician experience
- Institutional resources

Management

- **Expectant**
- **Medical**
  - Local MTX injection
  - Local embryocidal injection
  - Systemic multidose MTX
  - UAE
- **Surgical**
  - D&C
  - Hysteroscopic resection
  - Laparoscopy/laparotomy
    - Resection of CSP
    - Hysterectomy
- **> 30 management options described in the literature**

Literature Review

- Large number of publications
- 4 RCTs, 17 comparative studies, 42 case series
- 3127 cases
- 2017

ELSEVIER

JMIG The Journal of Minimally Invasive Gynecology

Review Article

Cesarean Scar Pregnancies: A Systematic Review of Treatment Options

Sarah Maheux-Lacroix, MD*, Fiona Li, Emmanuel Bujold, MD, MSc, Erin Nesbitt-Hawes, BMed, Rebecca Deans, BMed, PhD, and Jason Abbott, BMed (Hons), PhD

Maheux-lacroix et al. (2017)

Study outcomes

- **Success Rates (%)**
  - Efficacy of first line treatment
  - Need for additional treatment
- **Complications Rates (%)**
  - EBL > 500 cc
  - Hysterectomy

Maheux-lacroix et al. (2017)

Expectant Management

- 52 cases of viable CSP: 77% live birth
  - T1/T2 hemorrhage 13%; Hysterectomy 15%

Medical Management

- Systemic MTX, local MTX/KCL or both
- 62% success
- 7% hemorrhage
- 3% hysterectomy

Maheux-lacroix et al. (2017)

Surgical Management

- 83% success
- 18% hemorrhage
- 2% hysterectomy

Treatment	Success	Hemorrhage	Hysterectomy
D+C (N=645)	76%	28%	3%
Hysteroscopic resection (N=117)	88%	3%	2%
Open, laparoscopic/ vaginal resection (N=236)	96 – 99%	0 – 4%	<1%

SMFM Recommendations 2022

Society for Maternal-Fetal Medicine
High-risk pregnancy experts

SMFM Consult Series

smfm.org

Society for Maternal-Fetal Medicine Consult Series #63: Cesarean scar ectopic pregnancy

Check for updates

Society for Maternal-Fetal Medicine (SMFM); Russell Miller, MD; and Cynthia Gyamfi-Bannerman, MD; Publications Committee*

SMFM Recommendations 2022

1. Recommend against expectant management. Can lead to live birth but at expense of severe maternal morbidity (Grade 1B)
2. Systemic MTX alone should not be used (Grade 1C)
3. Surgical options (Grade 2C):
   - Operative resection (TV or L/S)
   - USS-guided D+C
   - Local MTX +/- other treatment (UAE, systemic MTX)
4. Counsel about risk of recurrence (up to 20%) (Grade 1C)

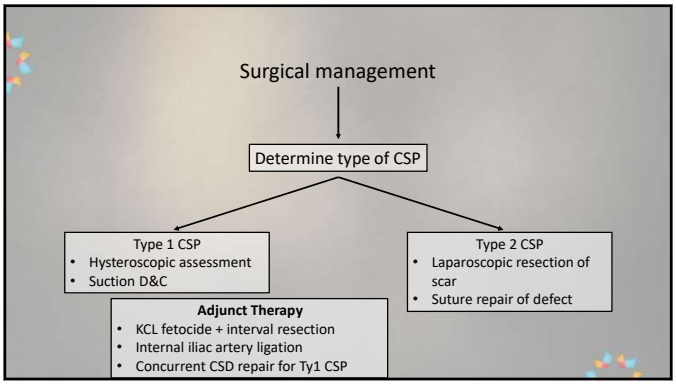
Grade 1: Strong Recommendation; Grade 2: Weak Recommendation

Surgical Management Algorithm for Caesarean Scar Pregnancy

Jessica Papillon-Smith, MD; Mara L. Sobel, MD, MSc; Kirsten M. Niles, MD, PhD; M. Jonathon Solnik, MD; Ally Murji, MD, MPH

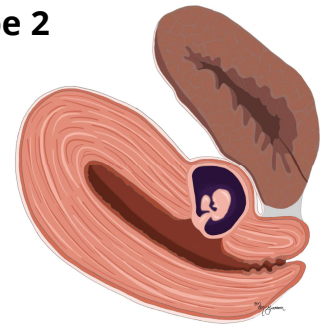
Department of Obstetrics and Gynaecology, Mount Sinai Hospital, University of Toronto, Toronto, ON

JOGC 2017



EVACUATION OF
TYPE I CSP

Type 2



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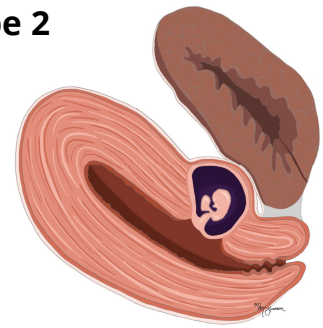
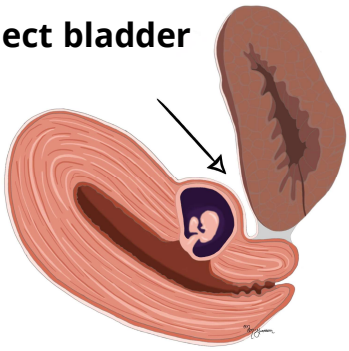
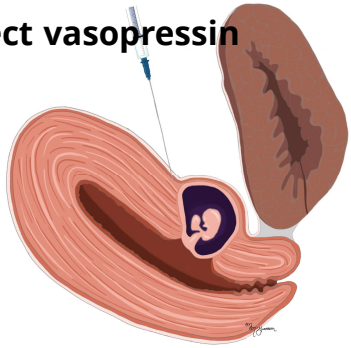


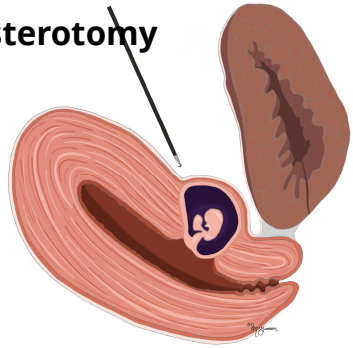
Reflect bladder



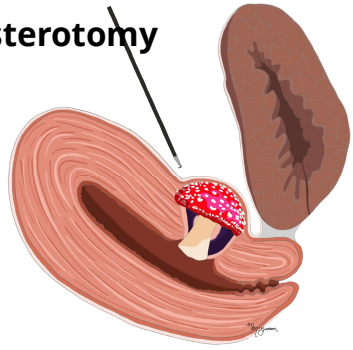
Inject vasopressin



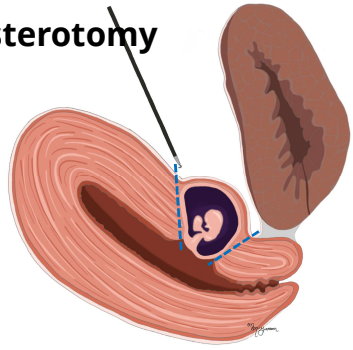
Hysterotomy

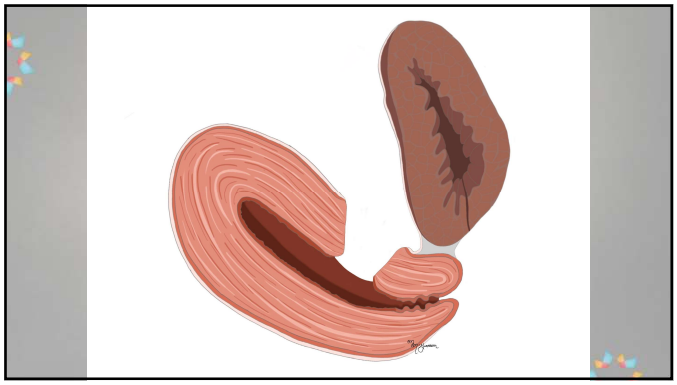


Hysterotomy

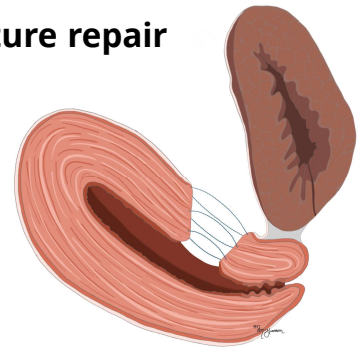


Hysterotomy





Suture repair



RESECTION OF TYPE II CSP

Strengths & Limitations

Strengths
- Avoids systemic MTX
- Embryocidal Injection + IIAL
- Dissection of vesicouterine peritoneum
- Can visualize and address complications
- Immediate resolution of symptoms
- Minimally Invasive technique
- Repair of defect

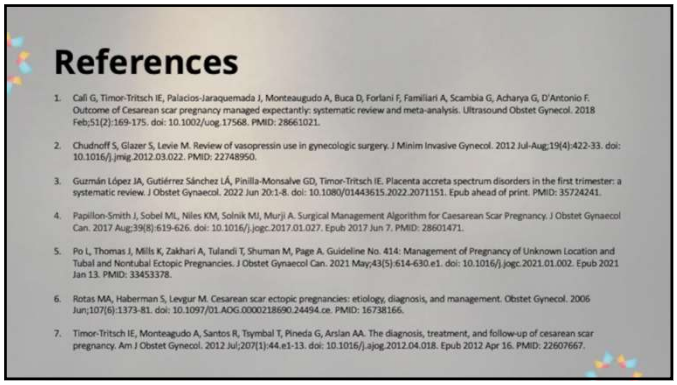
Limitations
- Risks of surgery
- Relies on accurate and timely diagnosis of CSP in T1
- Requires advanced laparoscopic skills

Take Home Messages

1. Two types of CSP – Type 1 (uterine), Type 2 (abdominal)
2. The type affects management
3. Management is predominantly surgical

Acknowledgments

- Dr Meghan McGrattan MD – MIGS Fellow, University of Toronto



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Hysteroscopy for Retained Products of Conception

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University of Calgary, Department of OBGYN

AAGL 2022 51st GLOBAL CONGRESS ON MIGS
December 1-4, 2022 | Aurora, CO | congress.aagl.org

Disclosures

Moderator: Hologic

Objectives

After this presentation, participants will be able to:

1. Describe benefits of hysteroscopy over blind D&C
2. Identify the role of hysteroscopy in managing RPOC in special populations
3. Differentiate various hysteroscopic techniques (resectoscopes, cold loop, mechanical tissue removal systems) for management of RPOC

Retained products of conception

- Presence of placental and/or fetal tissue in the uterus after miscarriage, termination, or delivery
- Incidence: 0.5-1%
  - Increases with gestational age at termination of pregnancy
- Risk factors
  - Medical abortion
  - T2 miscarriage
  - Placenta accreta spectrum disorders

DDx

Bleeding:
- RPOC (including placenta accreta spectrum)
- Hematometra
- Uterine atony/sub-involution
- Ectopic pregnancy
- Trauma (cervical or vaginal laceration, uterine perforation)
- Gestational trophoblastic disease

Infection:
- Endometritis
- Infected RPOC
- Pelvic inflammatory disease
- Other abdominopelvic infections, possibly related to uterine perforation if the uterus has been instrumented

Clinical Presentation:

Depends on amount of tissue retained, vascularization of products, length of time tissue is retained

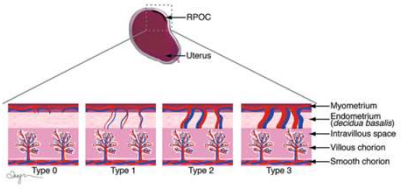
History:
- Primary: vaginal bleeding (spotting to heavy) OR amenorrhea >6 weeks
- Other: pelvic pain, fever (if infected)

Physical exam:
- Persistent bleeding
- Pain
- Cervical dilation or products protruding from os
- Uterine enlargement
- Cervical motion tenderness/signs of infection

Investigations

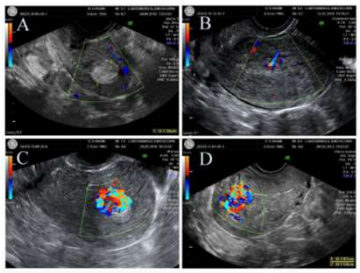
- Labs: bhCG (higher sensitivity than specificity)
- Imaging: ultrasound is first line
  - Echogenic or heterogenous material in endometrial cavity
  - Endometrial thickness >10mm
  - Doppler flow (low negative predictive value)

Kamaya classification



- Type 1: minimal endometrial vascularity less than the myometrium
- Type 2: moderate vascularity with nearly equal endometrial and myometrial vascularity
- Type 3: marked endometrial vascularity more than adjacent myometrium

Gutenberg classification



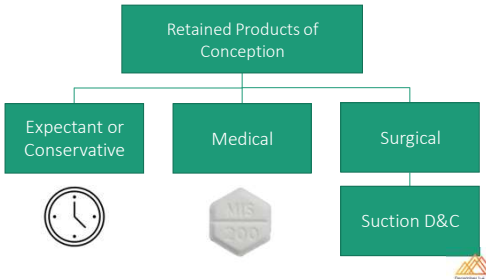
(A) Type 0: Hyperechogenic avascular mass

(B) Type 1: Different echoes with minimal or no vascularity

(C) Type 2: Highly vascularized mass confined to the cavity

(D) Type 3: Highly vascularized mass with highly vascularized endometrium/myometrium

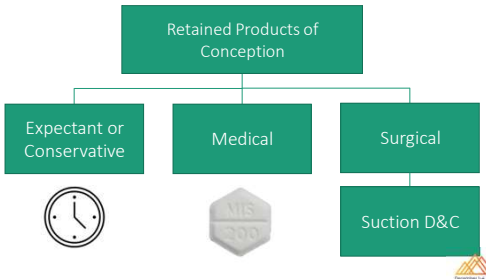
Management strategies

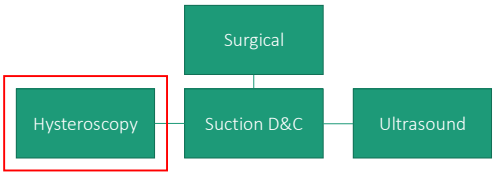


Blind procedures

- Incomplete evacuation (3.1-20.8%)
- Intrauterine adhesions (30%, up to 40% in repeat evacuation)
- Uterine perforation (5.7%)

Management strategies





Why hysteroscopy?

- Simultaneous diagnosis and treatment
- Direct visualization, targeted removal
- Less likely to develop IUA compared to blind D&C
  - 12.8% vs 29.6% (Hooker et al)
  - 4.2 vs 30.9% (Rein et al)
- Inpatient or outpatient setting

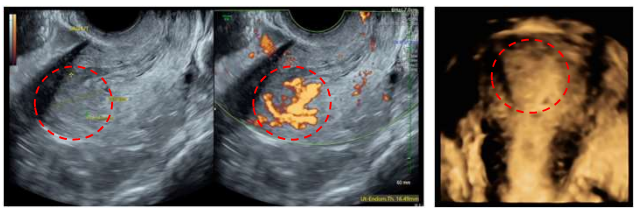
Management of RPOC

- 3 scenarios where hysteroscopy is an invaluable tool for management of RPOC
- Different hysteroscopic options are demonstrated

Scenario 1: Uterine anomaly

- 33yo G2P0A1
- Obstetric history:
  - Medical and surgical management of SA resulting in severe intrauterine adhesions and amenorrhea
  - Underwent hysteroscopic management of adhesions and was subsequently diagnosed with dysmorphic uterus
  - Restarted menses
- Presents again with SA at 9 weeks GA

Scenario 1: Uterine anomaly

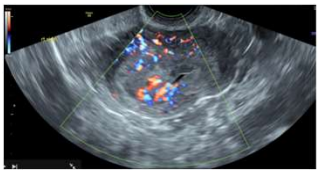


Scenario 1: Follow up

- Normal cavity on follow up imaging
- Ready to pursue fertility

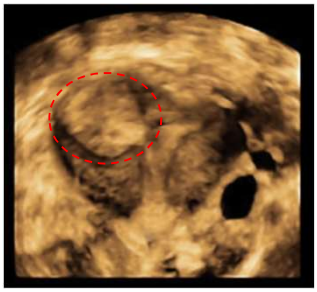
Scenario 2: Chronic RPOC

- 35yo G3T1A2
- Medically managed spontaneous abortion
- Referred with 4 months of persistently elevated bHCG, amenorrhea, and enlarging uterine mass



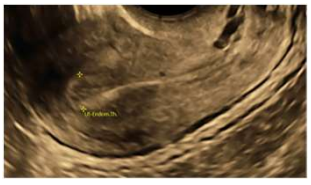
Scenario 2: Chronic RPOC

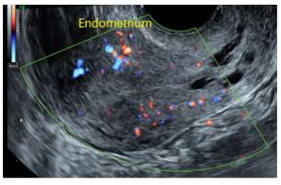
- Imaging showed RPOC in right cornua measuring 2.9cm



Scenario 2: Follow up

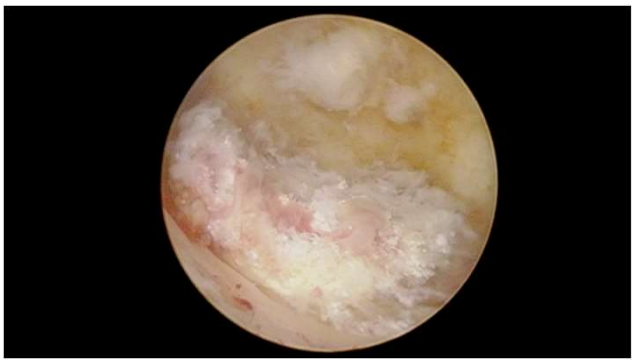
- bhCG <1 two weeks post-op
- Imaging post-op showed normal cavity





Scenario 3: Morbidly adherent placenta

- 33yo G5P2: Urgent D&E for loss at 22+ weeks
  - Remaining placenta left in situ due to suspected accreta – managed conservatively with antibiotics
  - Continued to have bleeding and US showed RPOC
- 31yo G3P2: After uncomplicated SVD at home (3mo PP), daily bleeding and US showed RPOC
  - History of D&C for RPOC in first pregnancy



Summary

- Patients that would benefit from hysteroscopic management:
  - Uterine anomaly
  - Chronic RPOC
  - Morbidly adherent placenta
- Techniques include resectoscopes, cold loop, and mechanical tissue removal systems
- Advantages include:
  - Reduced risk of persistent RPOC
  - Reduced incidence of intrauterine adhesions and other complications
  - Inpatient or outpatient setting

Acknowledgements

- Sukhbir S Singh, MD FRCSC, University of Ottawa
- DB Nguyen, MD FRCSC, McGill University
- B MacGregor, MD FRCSC, University of British Columbia

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Thank you!

The Difficult Cesarean Section: Endometriosis, Fibroids & More

Sukhbir S. Singh MD, FRCSC, FACOG
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Research Chair in Gynecologic Surgery
Associate Scientist, Ottawa Hosp Rsch Institute
Program Director, Fellowship in Minimally Invasive Gynecology

The Ottawa Hospital Minimally Invasive Gynecology

Inspired by research. Driven by compassion. Inspiré par la recherche. Guidé par la compassion.

Affiliated with uOttawa

Disclosure

- I do not practice primary obstetrics… only OB emergencies
- I have financial relationships, unrelated to this topic with the following:
  - Consultant: Bayer HealthCare, AbbVie
  - Speakers Bureau: Myovant Sciences, Ethicon Endo-Surgery

The Ottawa Hospital Minimally Invasive Gynecology
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Objectives

- List the obstetrical cases that may require surgical intervention with the help of an expert in MIG
- Identify the essential components of a Surgical OB Team

AAGL 2022 51st GLOBAL CONGRESS ON MIGS
December 1–4, 2022 | Aurora, CO | congress.aagl.org

The Ottawa Hospital Minimally Invasive Gynecology
Affiliated with uOttawa

Evolving in the Better Normal: Paradigm Shifts in Women's Health

Planning, Teamwork and Experience

S. Singh MD, FRCSC, FACOG

The Ottawa Hospital Minimally Invasive Gynecology
Inspired by research. Driven by compassion. Inspiré par la recherche. Guidé par la compassion.
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Case 1

- 32 year old G2A2 (miscarriages)
  - Abnormal uterine bleeding & pressure due to large single uterine fibroid (13 cm)
  - Desires pregnancy
- 2 cycles UPA = symptom relief and shrinks fibroid to 7 cm
- Plan for surgical excision but gets pregnant!

NOTE: Changes to story for clinical education

The Ottawa Hospital Minimally Invasive Gynecology
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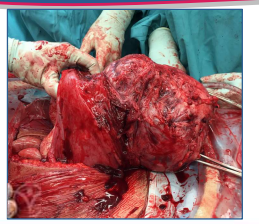
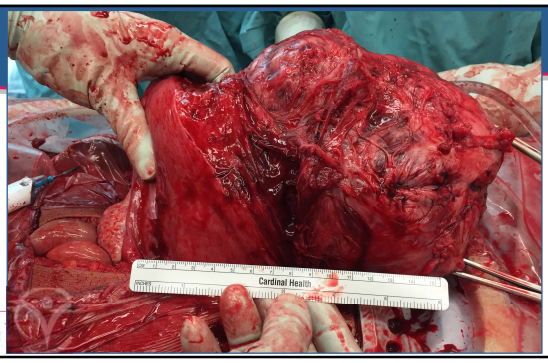
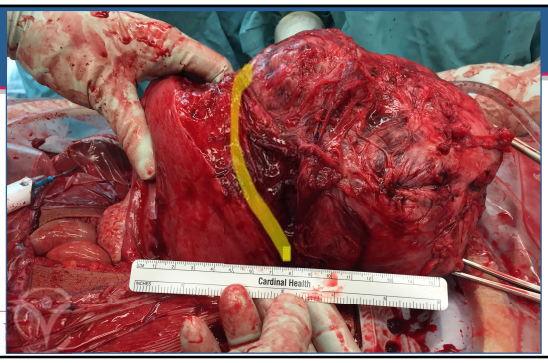
Case 1

- Highly desired pregnancy
- Complicated by
  - Increasing size of fibroid (13x 16 cm)
  - Small biparietal diameter with dolichocephaly (long skull)
- Elective C/S planned due to breech and lower segment fibroid

Case 1: Myomectomy at Delivery







Concerns for Mom?

- Intraoperative
  - Hemorrhage
  - Ureteric/Bladder Injury
  - Risk of Hysterectomy
- Post operative
  - DIC
  - Infection
  - DVT/PE
  - Pain Control
  - Uterine adhesions

Post-operative

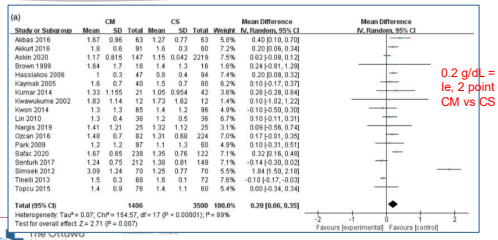
- Recovered well (1.5 L Estimated Blood Loss)
- **Outpatient Hysteroscopy diagnostic at 6 mos.** – normal cavity, no fibroid on ultrasound
- Second pregnancy a year later

Meta Analysis: J. Maternal-Fetal & Neonatal Medicine (2020):

- Cesarean vs Cesarean Myomectomy (CM) in those with fibroids
- Inclusion: 2 groups in the study (CS and CM), and at least one of 7 outcomes of interest (EBL, Hb drop, OR time, hemorrhage incidence, transfusion rate, LOS, post op fever)
- 23 studies: 8,016 women
- 4,061 underwent cesarean section only, vs 3955 undergoing cesarean myomectomy

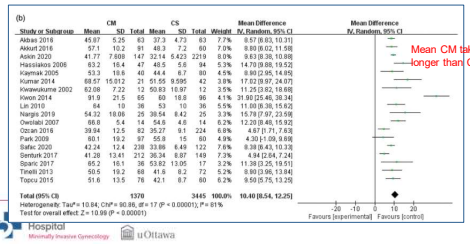
HUANG ET AL. 2020

Blood Loss



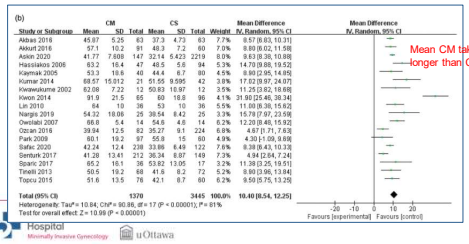
0.2 g/dL = 2 g/L
Ie, 2 point extra drop in Hb with CM vs CS

Duration of operation



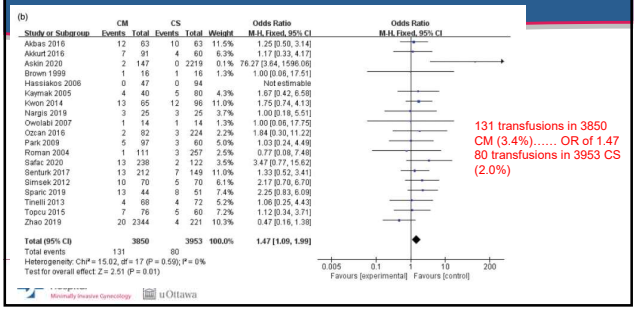
Mean CM takes 10.4 minutes longer than CS

Duration of operation



Mean CM takes 10.4 minutes longer than CS

Transfusion



131 transfusions in 3850 CM (3.4%)…… OR of 1.47
80 transfusions in 3953 CS (2.0%)

Uterine Fibroids

Conclusion – Huang et al 2020

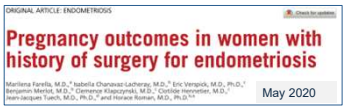
- ↑bleeding & longer OR if:
  - Intramural myomas
  - myomas ≥7 cm in size,
  - multiple myomas
- Suggest:
  - hemostatic techniques performed by experienced surgeons
  - BE SMART.. KNOW WHEN TO NOT OPERATE

Message:

Planning, Teamwork and Experience

Pre-operative Team Huddle

Endometriosis & Pregnancy



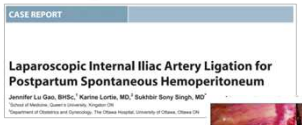
Pregnancy outcomes in women with history of surgery for endometriosis

May 2020

VS

The Complications at time of Delivery for those with Endometriosis
- Consider the complex cesarean section

Endometriosis & Pregnancy

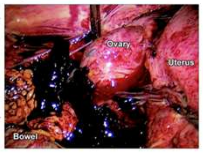


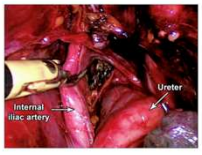
Laparoscopic Internal Iliac Artery Ligation for Postpartum Spontaneous Hemoperitoneum

29 year old G1P1 PPD#2 with Spontaneous hemoperitoneum…

Decidualized endometriosis overlying the uterine vessels

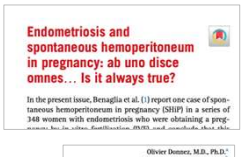
2 years later – LapEX for severe endometriosis and subsequent pregn!





Spontaneous hemoperitoneum in Preg

Endometriosis and spontaneous hemoperitoneum in pregnancy: evaluation of the magnitude of the risk in women becoming pregnant via in vitro fertilization

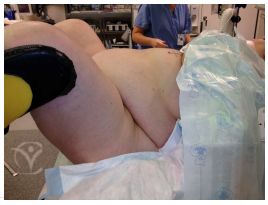


Endometriosis and spontaneous hemoperitoneum in pregnancy: ab uno disce omnes… Is it always true?

Call for more a registry among severe endometriosis patients

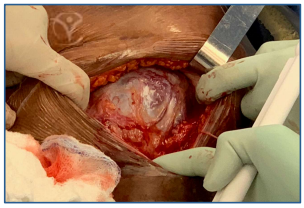
Planning is Essential

- The Expected
  - Diagnosed prior to delivery
  - Abnormal placentation
  - Comorbid health conditions (cardiac, BMI)
  - Other pathology (fibroids, prior surgery)



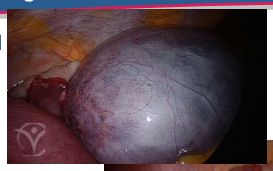
Sometimes you cannot Plan, but you can be ready!

- The Unexpected
  - Hemorrhage
  - Uterine Rupture
  - Placenta Accreta (newly diagnosed)
  - Abruption
  - Amniotic Fluid Embolus



Obstetrical Maternal Emergencies

- The NON-OB related
  - Ovarian torsion
  - Appendicitis
  - GI obstruction
  - Trauma
  - Others?

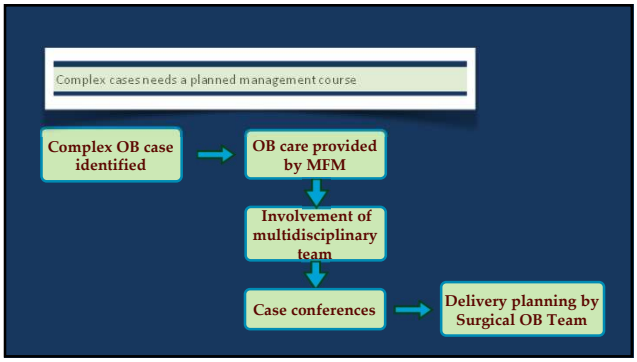


22 weeks Ovarian Torsion

Case: Chronic Pain and Cesarean

- 25 year old requesting hysterectomy for chronic dysmenorrhea and pain, unable to tolerate any medications due to confirmed anaphylaxis to PEG & latex
  - Unplanned pregnancy while waiting for TLH
  - Has Cesarean section with complex anesthetic management and severe allergic reactions…
- Returns to see me for TLH and booked…while waiting has second unplanned pregnancy!

Planning, Teamwork and Experience

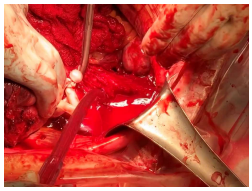


Our team at The Ottawa Hospital

- Department of Ob/Gyn and Newborn Care
- Department of Anesthesiology and Pain Medicine
- Nurses, Support Staff and Anesthesia Assistants
- Departments of Radiology, Urology and General Surgery
- Fellows, Residents and Students

Surgical Experience Matters

- Most experienced surgeon(s) should be available and mentor others.
- Volume and skills matter
  - Internal iliac artery ligation
  - Ureterolysis, bladder repair
- In past: Gyn Oncology or urogynecology
  - Now we have a dedicated team



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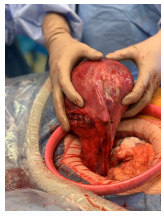
Chronic Pain and Cesarean

No blood transfusion, patient very happy with approach and no allergic reaction post surgery



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Message

- Don't forget the "Obstetrics" in Complex Surgical OB cases
- Maternal fetal medicine, anesthesia, experienced Obstetrician partnering with Surgical OB Team

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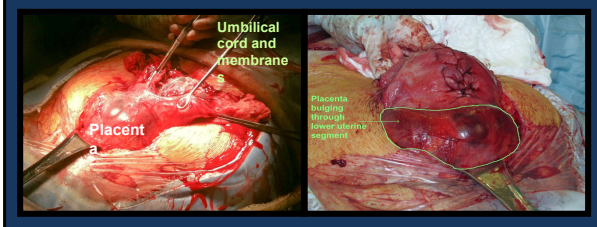
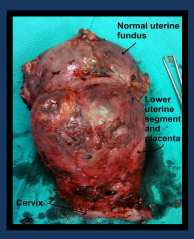
Final Case: Urgent Cesarean Diagnosis: Placenta Increta



Final Case: Laparoscopic Delayed Hysterectomy



In Conclusion

- What can we do?
  - Think like a team and encourage collaboration BEFORE encountering a complex case
  - Build a culture of safety
  - Consider Simulation

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In Conclusion

- An OB Emergency may not be predictable BUT the response may be practiced
- TEAM Work and Expertise are essential

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Acknowledgements

VMIG

Thank you to our Surgical OB Team and our patients for making difference for our patients.

Thank you for the invitation.

AGL 2022 51st GLOBAL CONGRESS ON MIGS
December 1–4, 2022 | Aurora, CO | congress.aagl.org

The Ottawa Hospital Minimally Invasive Gynecology

Inspired by research. Driven by compassion. Inspiré par la recherche. Guidé par la compassion.

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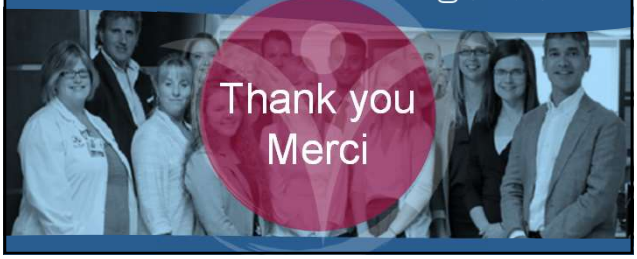

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CULTURAL AND LINGUISTIC COMPETENCY & IMPLICIT BIAS

The California Medical Association (CMA) announced new standards for Cultural Linguistic Competency and Implicit Bias in CME. The goal of the standards is to support the role of accredited CME in advancing diversity, health equity, and inclusion in healthcare. These standards are relevant to ACCME-accredited, CMA-accredited, and jointly accredited providers located in California. AAGL is ACCME-accredited and headquartered in California.

CMA developed the standards in response to California legislation (Business and Professions (B&P) Code Section 2190.1), which directs CMA to draft a set of standards for the inclusion of cultural and linguistic competency (CLC) and implicit bias (IB) in accredited CME.

The standards are intended to support CME providers in meeting the expectations of the legislation. CME provider organizations physically located in California and accredited by CMA CME or ACCME, as well as jointly accredited providers whose target audience includes physicians, are expected to meet these expectations beginning January 1, 2022. AAGL has been proactively adopting processes that meet and often exceed the required expectations of the legislation.

CMA CME offers a variety of resources and tools to help providers meet the standards and successfully incorporate CLC & IB into their CME activities, including FAQ, definitions, a planning worksheet, and best practices. These resources are available on the CLC and IB standards page on the CMA website.

Important Definitions:

Cultural and Linguistic Competency (CLC) – The ability and readiness of health care providers and organizations to humbly and respectfully demonstrate, effectively communicate, and tailor delivery of care to patients with diverse values, beliefs, identities and behaviors, in order to meet social, cultural and linguistic needs as they relate to patient health.

Implicit Bias (IB) – The attitudes, stereotypes and feelings, either positive or negative, that affect our understanding, actions and decisions without conscious knowledge or control. Implicit bias is a universal phenomenon. When negative, implicit bias often contributes to unequal treatment and disparities in diagnosis, treatment decisions, levels of care and health care outcomes of people based on race, ethnicity, gender identity, sexual orientation, age, disability and other characteristics.

Diversity – Having many different forms, types or ideas; showing variety. Demographic diversity can mean a group composed of people of different genders, races/ethnicities, cultures, religions, physical abilities, sexual orientations or preferences, ages, etc.

Direct links to AB1195 (CLC), AB241 (IB), and the B&P Code 2190.1:

Bill Text – AB-1195 Continuing education: cultural and linguistic competency.
Bill Text – AB-241 Implicit bias: continuing education: requirements.
Business and Professions (B&P) Code Section 2190.1

CLC & IB Online Resources:

Diversity-Wheel-as-used-at-Johns-Hopkins-University-12.png (850×839) (researchgate.net)
Cultural Competence In Health and Human Services | NPIN (cdc.gov)
Cultural Competency – The Office of Minority Health (hhs.gov)
Implicit Bias, Microaggressions, and Stereotypes Resources | NEA
Unconscious Bias Resources | diversity.ucsf.edu
Act, Communicating, Implicit Bias (racialequitytools.org)
https://kirwaninstitute.osu.edu/implicit-bias-training
https://www.uptodate.com/contents/racial-and-ethnic-disparities-in-obstetric-and-gynecologic-care-and-role-of-implicitbiases
https://www.contemporaryobgyn.net/view/overcoming-racism-and-unconscious-bias-in-ob-gyn
https://pubmed.ncbi.nlm.nih.gov/34016820/