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Study Objective: Our goal is to present benefits and safety of different techniques in office hysteroscopy for removal of retained products of conception by vaginoscopic approach.

Design: Surgical video.

Setting: MIGS Office.

Patients or Participants: Reproductive age patients presenting with retained products of conception.

Interventions: Office hysteroscopy.

Measurements and Main Results: N/A

Conclusion: Office hysteroscopy is the safe and effective approach for removal of retained products of conception with proper patient selection. If vaginoscopic approach is used, there is less pain and no need for sedation or local anesthetic. Surgeon needs to be familiar with different techniques. It is cost effective and spares the operating room for more complex cases or during the limited resources (such as pandemic).

Challenges in the Diagnosis and Management of Cervical Endometriosis

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Study Objective: To discuss the evaluation and management of cervical endometriosis. To demonstrate a surgical technique for localization and excision.

Design: Case presentation and review of literature with narrated video footage.

Setting: A tertiary care hospital and endometriosis referral center.

Patients or Participants: Case Presentation.

Interventions: We present a case of cervical endometriosis, which includes:

- Physical exam findings and tips for diagnosis
- Preoperative imaging
- A surgical technique for intraoperative localization and excision
- Review of literature

Measurements and Main Results: N/A

Conclusion: In summary, cervical endometriosis is important to consider in the patients with abnormal bleeding and chronic pelvic pain. Imaging and consultation with subspecialists may be necessary. There exists no consensus guidelines, but complete excision is imperative when undergoing surgical management.

Innovative Education for the Millennial: Use of Social Media and Multimedia for Impactful Interactive Education of Gynecological Surgery

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Study Objective: Demonstrate the utility of social media in minimally invasive gynecological surgery (MIGS) education and determine the most effective social media platform to impact and interact with the current OB/GYN trainee population.

Design: MIG Tips was created focusing on MIGS education through weekly one minute video posts focusing on surgical technique, anatomy, and technology for all trainees’. Accounts on Instagram (IG), Twitter, and YouTube were simultaneously created and subscriber/follower statistics were tracked.

Setting: Instagram (IG), Twitter, and Youtube social media platforms.

Patients or Participants: Medical Students, OB/GYN Residents, OB/GYN Fellows with access to IG, Twitter, and YouTube.

Interventions: N/A

Measurements and Main Results: IG is the most accessible social media platform to reach, connect, and interact with the current OB/GYN trainee population. Over 90% of IG Migs_Tips followers (https://www.instagram.com/migs_tips/) are OB/GYNs trainees, nationally and internationally. After 1 month, MIGS_Tips IG gained 1,500 OB/GYN trainee followers with over 5,000 video post views. IG Story ephemeral (24 hours) posts gain over 900 view daily, enabling frequent educational interactions with followers.

Conclusion: MIGS_Tips on the IG social media platform is the most impactful for OB/GYN trainees. Over 50 OB/GYN Residency Programs have individual IG accounts, making IG the most accessible social media account to interact with trainees. IG’s ability to share, reply, sticker tap, and follow MIGS_Tips’s multimedia posts greatly increases meaningful interactions and discussions, further facilitating MIGS focused surgical technique, technology, and anatomy education.

Keeping an Eye on the Enemy: Laparoscopic & Robotic Retroperitoneal Entry and Ureterolysis

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Study Objective: Discuss the most common causes of ureteral injury during gynecological surgery. Discuss the avoidance of ureteral injury. Demonstrate, with surgical video and traditional laparoscopic and robotic assisted laparoscopic retroperitoneal entry and ureteral identification/dissection.

Design: N/A

Setting: 6 minute surgical video reviewing traditional and robotically assisted laparoscopic techniques to identify and dissect the ureter.

Patients or Participants: Education for Medical Students, OB/GYN Residents, OB/GYN Fellows, and Attending Physicians.

Interventions: N/A

Measurements and Main Results: N/A

Conclusion: A keen understanding and knowledge of gynecological and urological anatomy plays an important role in the prevention of urinary tract injury during gynecologic surgery. The primary approach to prevention of ureteral injury is careful surgical dissection and knowledge of the position of the urinary tract structures within the surgical field.

Preoperative Predictive Score of Ovarian Torsion in Pregnancy

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Study Objective: To develop a risk score calculator for the prediction of adnexal torsion during pregnancy.
Design: A retrospective cohort study between 3.2011-4.2020.

Setting: Tertiary medical center.

Patients or Participants: All women who underwent surgical diagnostic procedure due to suspected adnexal torsion in pregnancy. Overall, 156 women were included.

Interventions: Operative laparoscopy.

Measurements and Main Results: We collected demographic and clinical characteristics. The presence or absence of adnexal torsion during the surgical procedure was recorded. Adnexal torsion was identified in 131 (83.9%) of the surgical procedures. The rate of previous ovarian torsion was lower in the torsion group [OR (95%CI) 0.29(0.11-0.79), p=0.01]. Pregnancy following assisted reproductive technology (ART) was more common in the torsion group [OR (95%CI) 7.0(1.99-24.54), p=0.001]. Reported left sided pain was lower in the torsion group [OR(95%CI) 0.41(0.17-0.97), p=0.04], while duration of symptoms ≤8 hours was higher [OR(95%CI) 7.31(1.65-32.43), p=0.002], as was pain score (0-10) (mean 8.5 vs. 7.2, p=0.007).

On physical examination, women appeared in more pain in the torsion group, had more peritoneal irritation, and less left adnexal tenderness [OR(95%CI) 4.34(1.74-10.58), p=0.001; 4.59(1.67-23.23), p=0.02; 0.27 (0.11-0.66), p=0.003, respectively]. In blood analysis, white blood cells concentration was higher in the torsion group (11.3 vs. 9.9 K/microL, p=0.01), as was the neutrophils to lymphocytes ratio (3.4 vs. 2.5, p=0.01) and the maximal diameter of the affected ovary (70 vs. 55 mm, p=0.02).

After multivariate analysis, three risk factors remained significantly independently associated with ovarian torsion; previous ovarian torsion was negatively associated [aOR(95%CI) 0.24(0.04-0.80), p=0.03], while ART and women that appeared in pain were positively associated [aOR(95%CI) 9.8(2.22-43.6), p=0.003; 3.8 (1.23-12.18), p=0.02, respectively].

Calculated risk for adnexal torsion was 0%, 68.2%, 90.4% and 100% in the presence of 0, 1, 2 and 3 risk factors respectively.

Conclusion: Our risk score calculator may assist clinicians in the prediction of adnexal torsion during pregnancy.

Robotic Single-Site Resection of Ureteral Endometriosis with Additional Ports

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Study Objective: To demonstrate the feasibility and advantages in applying the robotic system with additional ports to single-site laparoscopic resection of ureteral endometriosis.

Design: Video presentation of surgical techniques.

Setting: University hospital.

Patients or Participants: Three patients with endometriosis obstructing the ureter(s).

Interventions: A bipolar grasper, wristed needle drivers, and scissors with monopolar energy were used. Additional ports were inserted due to the complexity of the operation. Entry was made at the umbilicus and carried down into the abdominal cavity, and the pelvis was inspected for endometriosis lesions. The first patient was a 38-year-old G0P0 with an absent right kidney and ureter from a congenital Mullerian fusion defect who complained of one-year duration of pelvic pain. Superficial endometriosis nodules were identified on the left ureter. The lesions were trimmed with cold scissors to avoid thermal damage. The second patient was a 44-year-old G1P1001 who presented with left kidney failure following a longstanding history of chronic pelvic pain and endometriosis with urinary symptoms. Multiple gynecologic procedures were required, including resection of bilateral deep-infiltrating endometriosis lesions, total laparoscopic hysterectomy with bilateral salpingo-oophorectomy, and lysis of adhesions. Structured segments of the left ureter were excised and then left ureteronecystostomy was carried out. The third patient was a 33-year-old G0P0 with recurrent Stage IV endometriosis who had bilateral ureteral strictures. Bilateral robotic laparoscopic ureterolysis and ureteronecystostomy were indicated. Notably, for the anastomosis, the bladder was sufficiently mobilized and a Psoas hitch was performed on the right to ensure no tension at the repair site.

Measurements and Main Results: Final abdominal survey was performed, and hemostasis was ensured. All patients had successful outcomes with minimal blood loss and no known complications to date.

Conclusion: Robotic-assisted single-site laparoscopic with additional ports is an effective method for ureteral endometriosis removal. A combined effort between gynecology and urology may be needed for highly advanced cases.

Robotic Assisted Transvaginal Notes Hysterectomy

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Study Objective: To demonstrate a novel approach to transvaginal natural orifice transluminal endoscopic surgery (vNOTES) hysterectomy with bilateral salpingectomy using robotic assistance.

Design: Video presentation of the surgical procedure.

Setting: University hospital.

Patients or Participants: A 34-year-old G2P1011 with one prior cesarean section and myomectomy complained of dysmenorrhea and chronic pelvic pain and requested for the most minimally invasive form of hysterectomy.

Interventions: A robotic-assisted transvaginal hysterectomy with bilateral salpingectomy was performed. The surgery began as a conventional transvaginal hysterectomy. An anterior and posterior colpotomy were performed, as which point, a camera was inserted to improve visibility. This allowed for confirmation of suspected adhesions from the patient’s surgical history, most notably present in the anterior cul-de-sac between the bladder and uterus. Wristed instruments of the robot, the monopolar scissors and bipolar grasper, were also placed which enabled better navigation in the narrow surgical space. The remainder of the surgery, including the lysis of the dense adhesions, was completed smoothly with robotic assistance. The vaginal cuff was closed with a continuous running v-loc. The pelvis was inspected upon conclusion of the procedure and hemostasis was observed throughout.

Measurements and Main Results: The surgery was completed in 90 mins without complications. The patient was discharged on the same day. On follow-up, the patient noted that her post-operative pain was significantly less than what she had experienced after her previous myomectomy.

Conclusion: We showed that robotic-assisted NOTES is a novel and feasible option for transvaginal hysterectomy in indicated patients, particularly those with abnormal pathologies such as dense adhesions. In addition to image-guidance, robotic surgery allows for full articulation of instruments required for this surgery, which improves ease and access over other methods like laparoscopic surgery.

The Impact of the COVID-19 Pandemic on Obstetric and Gynecologic Procedures and Consults at a Metropolitan Hospital in the Epicenter

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