

including time spent reviewing the tool by families and care providers, will be assessed.

Results: To date, healthcare providers and ethicists have rated the usability and actionability of our tool highly according to the PEMAT. Care providers agreed the tool will be helpful for families (4.2/5), is easy to understand (4/5), accurately represents care (4/5) and provides valuable information (4.2/5). Care providers commented that the tool provides a comprehensive, non-judgmental overview of menstrual suppression. Suggestions for improvement include increasing the interactivity of the tool, generating a summary of results for families, and improving the flow of the online tool.

Conclusions: We demonstrate the development of a menstrual suppression decision aid, using a quality improvement process. Our experience highlights the feasibility of creating decision aids in the field of pediatric and adolescent gynaecology.

9. Symptomatic Infected Fluid Collection Complicating a Gravid Uterus Didelphys

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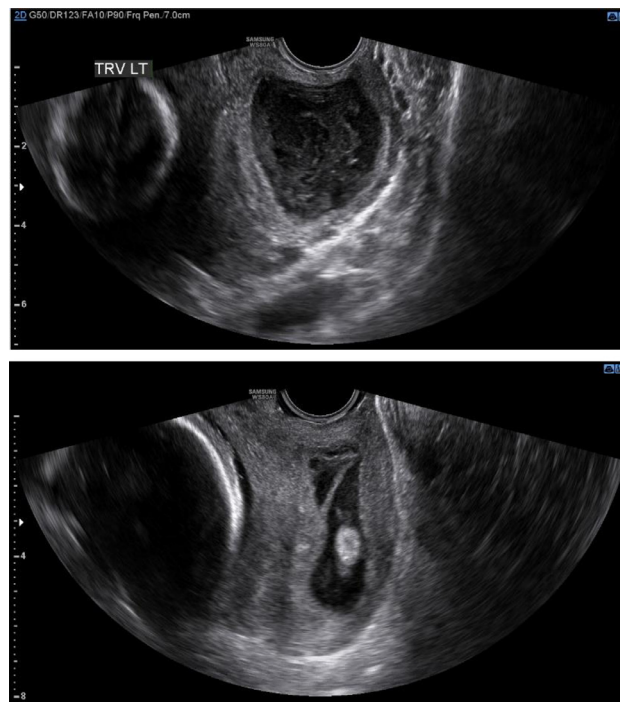
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Background: Congenital müllerian anomalies (CMA) are common, affecting approximately 5% of the population. Sonographic as well as MRI evaluation of CMA may help delineate anomaly classification, however a large gravid uterus may obfuscate ability to define these during pregnancy. This report illustrates an interesting case of a CMA diagnosis needed to evaluate and manage a non-obstetric complication during the second trimester of pregnancy.

Case: A 19 year old G1 with no significant gynecologic history presented for a fetal dating and anatomy ultrasound at 16 weeks and was notable for suspected didelphys uterus. A singleton pregnancy was noted in right uterus whereas the left uterus was empty with a thickened endometrium and hematocolpos suggestive of a longitudinal vaginal septum. On follow up ultrasound, a growing, large complex fluid collection measuring 6.76 × 3.31 × 4.26 cm was noted. At 25 weeks she presented to an OB-ED with heavy vaginal bleeding and significant purulent discharge and was admitted for treatment of suspected PID in the non-gravid uterus in the setting of leukocytosis (16,200) and fundal tenderness. On vaginal and rectal exam, a second cervix was unable to be identified and no vaginal bulge noted on palpation. A pelvic MRI was obtained to rule out an obstructed hemi-vagina and unilateral renal anomaly (OHVIRA), but was instead suggestive of an occluded hemi-vagina. The patient was readmitted 72 hours later due to preterm contractions which resolved, however purulent discharge continued. At that time, patient underwent exam under anesthesia, and with ultrasound guidance, a uterine sound was advanced into a fistula tract and a word catheter was placed through the fistula tract into the left hemi-vagina. Once the purulent discharge was drained, the left cervix was palpated 3 cm anterior to the right cervix, but not visualized. At 27 weeks there was minimal residual drainage and the catheter was retracting into mucosa as uterus was growing. Worried that the catheter may get lost or be a site for ascending infection it was removed. She was subsequently diagnosed with gestational hypertension at 37 weeks and she underwent an induction of labor.

Comments: Ascertaining the proper anatomical CMA was integral to resolving the infection of the non-gravid müllerian structures and provide appropriate counseling on risks in this and future pregnancies. Uterine anomalies are difficult to detect during pregnancy, and this report illustrates a fascinating multi-subspecialty approach including MFM, Pediatric and Adolescent Gynecology, Infectious Disease, and Interventional Radiology as well as a multi-imaging modality approach to provide appropriate evaluation and management.

Supporting Figures or Tables



10. A Petrified Intrauterine Device: Another Consideration for a Vaginal Foreign Body

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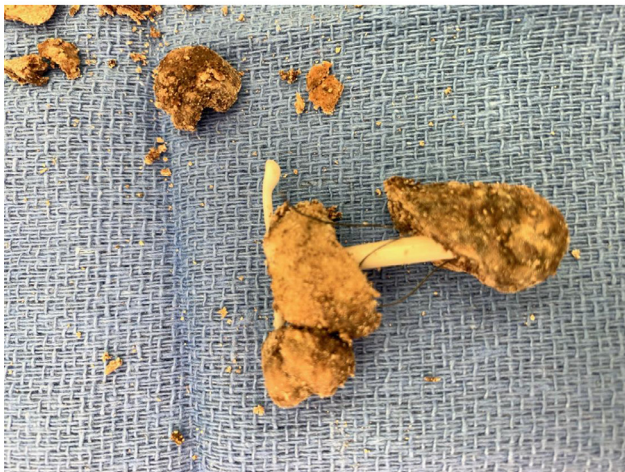
Background: This case describes a levonorgestrel intrauterine device (IUD) found to be expelled and retained in the vagina encased in a thick, calcified rind. This case demonstrates that an IUD may be retained in a vaginal foreign body in a patient with decreased mobility and may present with an unconventional appearance. There are several case reports in the literature describing IUDs migrating into the bladder and forming intravesical calculi; there are no case reports describing a similar process of petrification in the uterus or vagina.

Case: The patient is a 12-year-old, medically complex female with global developmental delay, quadriplegic cerebral palsy and epilepsy secondary to congenital cytomegalovirus infection. She had menarche at age 9. A 52 mg levonorgestrel IUD was placed seven months later for menstrual suppression, resulting in significantly lighter menstrual bleeding. After about one year, the patient experienced a return of heavier menstrual bleeding, which persisted for a year prior to presentation. She had a renal ultrasound completed for unrelated complaints that noted a vaginal foreign body, concerning for her IUD. Her exam revealed a rock-like foreign body in the vagina, but no IUD. The object could not be removed in the clinic. She then had an exam under anesthesia (EUA) at which time the foreign body was easily removed. The T-shaped object was encased in a malodorous, hard, brown cast. Breaking the cast revealed the patient's IUD. Another 52 mg levonorgestrel IUD was then successfully placed resulting in excellent menstrual suppression.

Comments: In this non-mobile patient, the differential diagnosis included calcified stool or decidual cast, her IUD, or another foreign body. In the office, the foreign body was not clearly identifiable and due to the size could not easily be removed. The EUA demonstrated an encased IUD. This patient's IUD was possibly expelled and then sat in the vagina where layers of surface deposition accumulated and created a stone. We also considered that the IUD was expelled in toto within a decidual cast. The expulsion rate of IUDs in adolescents is reported to be 8.0%. Identifying

IUD displacement can be more challenging in patients with developmental disabilities for many reasons. In this case, resumption of heavier menstrual bleeding after initial benefit following IUD placement should have prompted an exam. The IUD was likely rendered ineffective by displacement from the endometrial cavity and possibly by encapsulation within the cast.

Supporting Figures or Tables



11. Use of the Levonorgestrel Intrauterine System in an Adolescent with Type IV Vascular Ehlers-Danlos Syndrome and Heavy Menstrual Bleeding

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Background: Ehlers-Danlos Syndrome (EDS) is a connective tissue disorder resulting in altered collagen synthesis. Heavy menstrual bleeding (HMB) and dysmenorrhea are common among adolescents with EDS. The levonorgestrel intrauterine system (LNG-IUS) is an effective treatment option for HMB in the general population, however its use in patients with vascular EDS has historically been avoided due to the perceived risk of spontaneous uterine rupture with IUD use in these patients.

Case: A 16-year-old female with vascular EDS presented with concerns for HMB. She reported menarche at age 13, with cycles every 4–6 weeks, lasting seven days in duration. She reported changing soaked pads every 3–4 hours and regularly passing dime-sized clots, with a total pictorial blood loss assessment chart score of 254. She was known to have a glycine substitution in her COL3A1 gene—a vascular EDS subtype, associated with aortic and viscus rupture, particularly with surgical interven-

tions. After thorough discussion, she desired to have a LNG-IUS placed for menstrual management. The procedure was recommended under ultrasound guidance and with sedation to optimize the chance of successful and safe placement, given concerns the family had regarding uterine rupture with IUS placement, as reported to them by previous providers. Intraoperatively, she was noted to have an anteverted, anteverted uterus which sounded to 7 cm. A tenaculum was used to grasp the cervix and the LNG-IUS was deployed at the fundus under transabdominal ultrasound guidance. Hemostasis of the cervix was achieved after applying brief pressure and no complications occurred. At six-week follow-up, she reported moderate vaginal bleeding and cramping for one week following LNG-IUS placement. She noted two days of light bleeding without cramping with her subsequent menstrual cycle and was overall very satisfied with the LNG-IUS. At six-month follow up, she reported only occasional spotting with her IUD and significant improvement in her energy.

Comments: Many individuals with EDS experience heavy menstrual bleeding and dysmenorrhea. The LNG-IUS has been underutilized in this population, especially for those with vascular EDS, due to theorized concerns for uterine perforation and significant bleeding. Previous publications have recommended using extreme caution with LNG-IUSs in patients with vascular EDS given a lack of evidence supporting their use. Our case demonstrates use of the LNG-IUS can be a safe and effective option for HMB in this population. Furthermore, risk of complications may be mitigated by optimizing successful placement with adequate pain control and ultrasound guidance.

12. Needs Assessment: Knowledge and Confidence of ObGyn Residents in the Evaluation and Management of Heavy Menstrual Bleeding due to Bleeding Disorders

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Background: Heavy menstrual bleeding (HMB) after menarche is common in adolescents. While an immature hypothalamic-pituitary-ovarian axis accounts for most cases, 20–30% of affected adolescents will be diagnosed with an inherited bleeding disorder (IBD). The Council for Resident Education in Obstetrics and Gynecology establishes learning objectives for ObGyn residents to master during training. Despite the high prevalence of HMB and IBDs in adolescents and adults, specific learning objectives on the topic of IBDs is lacking. We therefore sought to determine ObGyn resident exposure to lectures and clinical training, and their overall confidence in the evaluation and management of HMB due to IBDs.

Methods: We conducted an IRB-approved prospective survey of ObGyn residents in the U.S. We sent an email invitation to program directors, inviting residents to complete an anonymous 26-item survey. Five-point Likert scales queried residents' confidence in the evaluation and management of HMB and iron deficiency anemia, in patients with and without suspected IBDs. Additional items surveyed exposure to lectures or other structured education on these topics, year of post-graduate training, gender, and type of training program. Descriptive statistics were used for continuous variables using means and ranges. For tests of association with residency year, we used linear ANOVA, and for all other tests of association, we used independent sample t-tests.

Results: 239 U.S. ObGyn residency programs were invited to participate; 83 surveys were collected (34.7% response). Respondents represented aca-