AMSER Case of the Month: February 2023

39-year-old female at 23w5d gestation with moderate vaginal bleeding

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Patient Presentation

• **HPI:** 39-year-old G3P2002 at 23w5d presents for 2 days of moderate vaginal bleeding. Patient denies any loss of fluid or contractions. Fetal movement present. Patient denies any recent abdominal trauma or sexual activity.

• **Maternal Medical History:** No history of fibroids or cervical polyps

• **Past Surgical History:** None

• **Family History:** Non-contributory

• **Social History:** No smoking, alcohol use, or illicit substance use
Pertinent Physical Exam & Labs

• Physical Exam
  • **Vitals:** BP 108/61, pulse 103 bpm, temperature 97.8°F (36.6°C), RR 18
  • **Cervical Exam:** non-vascular soft tissue protruding from external cervical os with portions of cervix able to be palpated anteriorly and posteriorly behind the mass circumferentially
  • **Fetal Presentation:** pulse 150 bpm, complete/frank breech

• **Labs:** BMP, CBC, PT-INR within normal limits

• Prior pelvic ultrasound performed at an outside hospital demonstrated a 6cm mass in the cervix

• **Per Ob team - Bedside (repeat) Transabdominal Ultrasound:** 8.8 x 8.8 cm solid, homogenous mass in cervix, likely representin
What Imaging Should We Order?
Select the applicable ACR Appropriateness Criteria

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Procedure</th>
<th>Adult RRL</th>
<th>Ped's RRL</th>
<th>Appropriateness Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibroids suspected, initial imaging</td>
<td>US duplex Doppler pelvis</td>
<td>0 mSv 0</td>
<td>0 mSv [ped] 0</td>
<td>Usually appropriate</td>
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<td></td>
<td>US pelvis transabdominal</td>
<td>0 mSv 0</td>
<td>0 mSv [ped] 0</td>
<td>Usually appropriate</td>
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<td></td>
<td>US pelvis transvaginal</td>
<td>0 mSv 0</td>
<td>0 mSv [ped] 0</td>
<td>Usually appropriate</td>
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<td></td>
<td>MRI pelvis without and with IV contrast</td>
<td>0 mSv 0</td>
<td>0 mSv [ped] 0</td>
<td>May be appropriate</td>
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<tr>
<td></td>
<td>MRI pelvis without IV contrast</td>
<td>0 mSv 0</td>
<td>0 mSv [ped] 0</td>
<td>May be appropriate</td>
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<td>CT pelvis with IV contrast</td>
<td>1-10 mSv</td>
<td>3-10 mSv [ped]</td>
<td>Usually not appropriate</td>
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<td>CT pelvis without IV contrast</td>
<td>1-10 mSv</td>
<td>3-10 mSv [ped]</td>
<td>Usually not appropriate</td>
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<tr>
<td></td>
<td>CT pelvis with and with IV contrast</td>
<td>10-30 mSv</td>
<td>3-10 mSv [ped]</td>
<td>Usually not appropriate</td>
</tr>
</tbody>
</table>

This imaging modality was ordered by the Ob/Gyn team.
Findings (unlabeled)
Findings (labeled)

Axial T1

Axial T2 with measurement

Solid 7.7 cm x 8.9 cm
Findings (unlabeled)

Sagittal T2

Coronal TrueFISP
Findings

- **Uterus**: gravid with posterior placenta not covering internal cervical os
- **Cervix/Posterior Vaginal Fornix**: 7.7 x 8.9 x 9.3 cm circumscribed mass T1 hypointense and T2 hyperintense signal. No stalk. Associated local mass effect on bladder and rectum.
Final Dx:

Cervical 9.2 cm mass most consistent with a fibroid
Fibroids/Leiomyomas

• Benign neoplasms arising from uterine myometrium
• Unknown etiology
• Usually occur in women of reproductive age
• Reported in 70%-80% of women by age 50
• In the US, more common in African American than Caucasians
• About 25% are symptomatic causing:
  • Abnormal uterine bleeding, especially heavy menstrual bleeding
  • Pelvic or abdominal pressure, bowel dysfunction, and bladder symptoms
• Most regress after menopause
Uterine Fibroids Evaluation

• **Diagnosis**: bimanual palpation during pelvic exam or ultrasound AND/OR clinically in a patient with menorrhagia, especially if symptoms coincide with pelvic pressure

• Ultrasound used to confirm diagnosis
Myomectomy is first-line conservative surgical therapy for management of symptomatic submucosal fibroids.

Hysterectomy used as definitive treatment for symptomatic fibroids:
- Offered for women who do not desire future pregnancy.

Treatment during pregnancy:
- Pain managed by bed rest, fluids, analgesia.
- Indications for myomectomy include:
  - Intractable pain.
  - Large or rapidly growing fibroid.
  - Large fibroid (>5 cm) located in lower uterine segment.
References:

1. Laughlin SK, Stewart EA. Uterine leiomyomas: individualizing the approach to a heterogeneous condition. Obstet Gynecol. 2011 Feb;117(2 Pt 1):396-403

