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 97.8ºF (36.6ºC), 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?

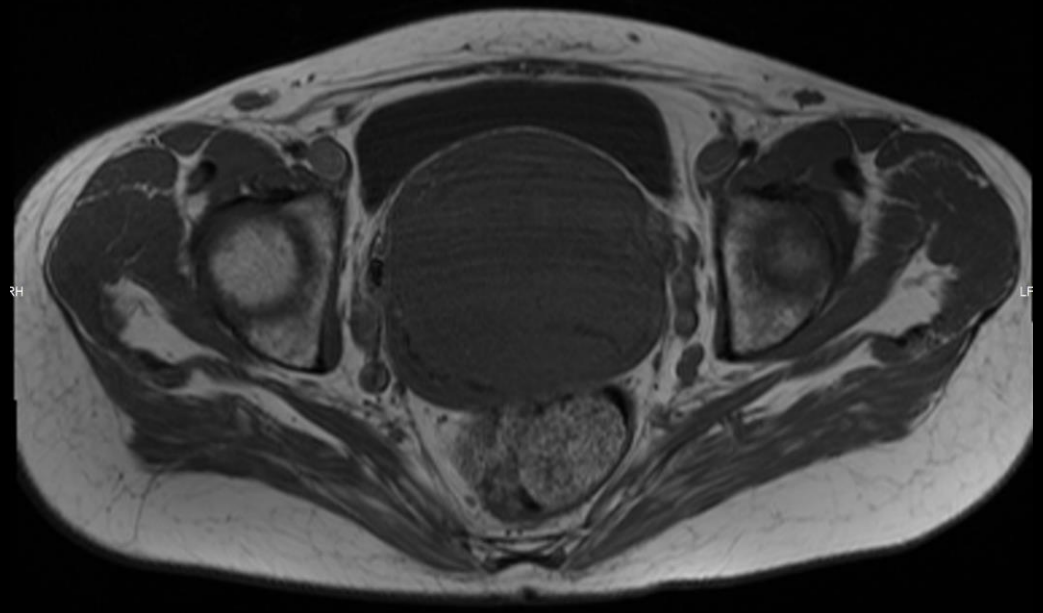
Select the applicable ACR Appropriateness Criteria

Scenario	Procedure	Adult RRL	Peds RRL	Appropriateness Category	
Fibroids suspected, initial imaging	US duplex Doppler pelvis	0 mSv O	0 mSv [ped] O	Usually appropriate	
	US pelvis transabdominal	0 mSv O	0 mSv [ped] O	Usually appropriate	
	US pelvis transvaginal	0 mSv O	0 mSv [ped] O	Usually appropriate	
	MRI pelvis without and with IV contrast	0 mSv O	0 mSv [ped] O	May be appropriate	
	MRI pelvis without IV contrast	0 mSv O	0 mSv [ped] O	May be appropriate	
	CT pelvis with IV contrast	1-10 mSv	3-10 mSv [ped]	Usually not appropriate	
	CT pelvis without IV contrast	1-10 mSv	3-10 mSv [ped]	Usually not appropriate	
	CT pelvis without and with IV contrast	10-30 mSv	3-10 mSv [ped]	Usually not appropriate	

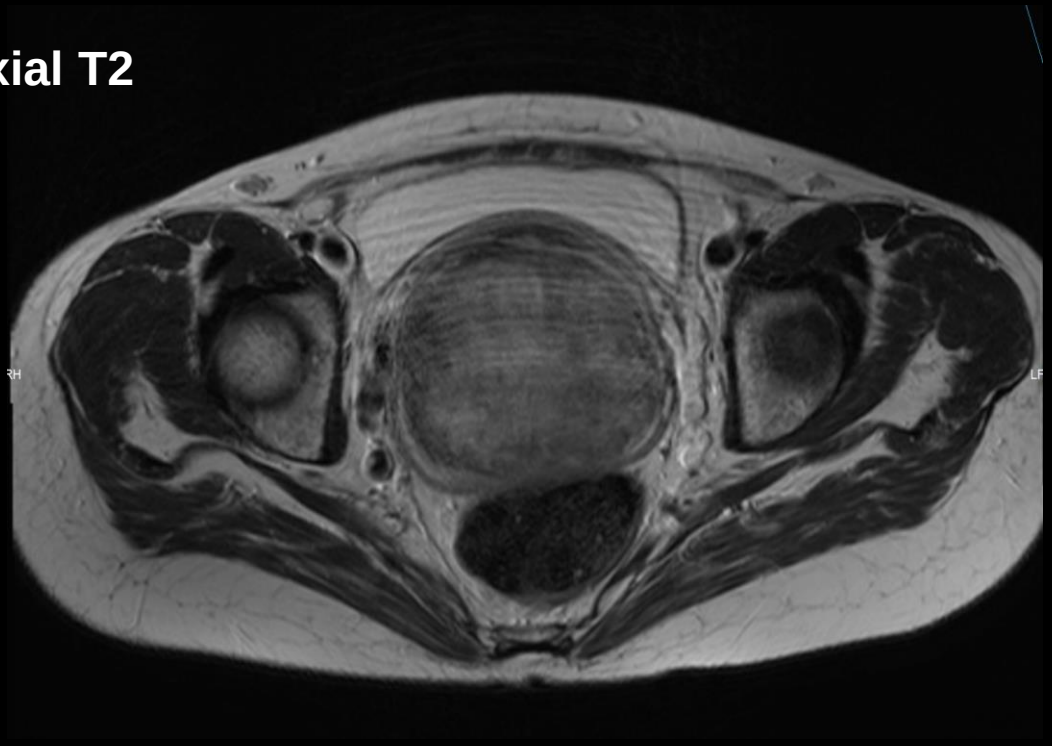
This imaging modality was ordered by the Ob/Gyn team

Findings (unlabeled)

Axial T1

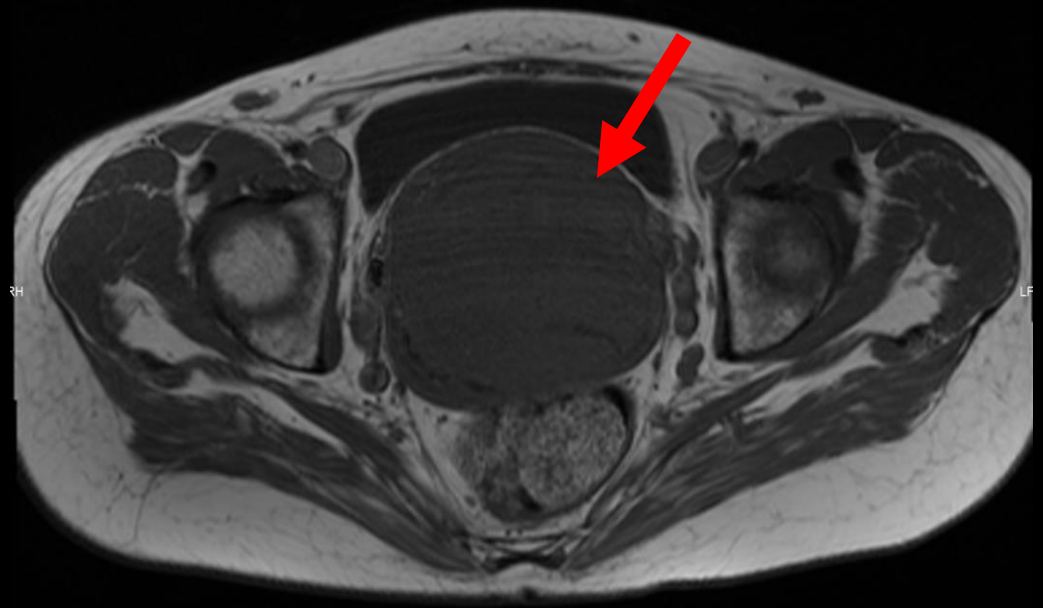


Axial T2

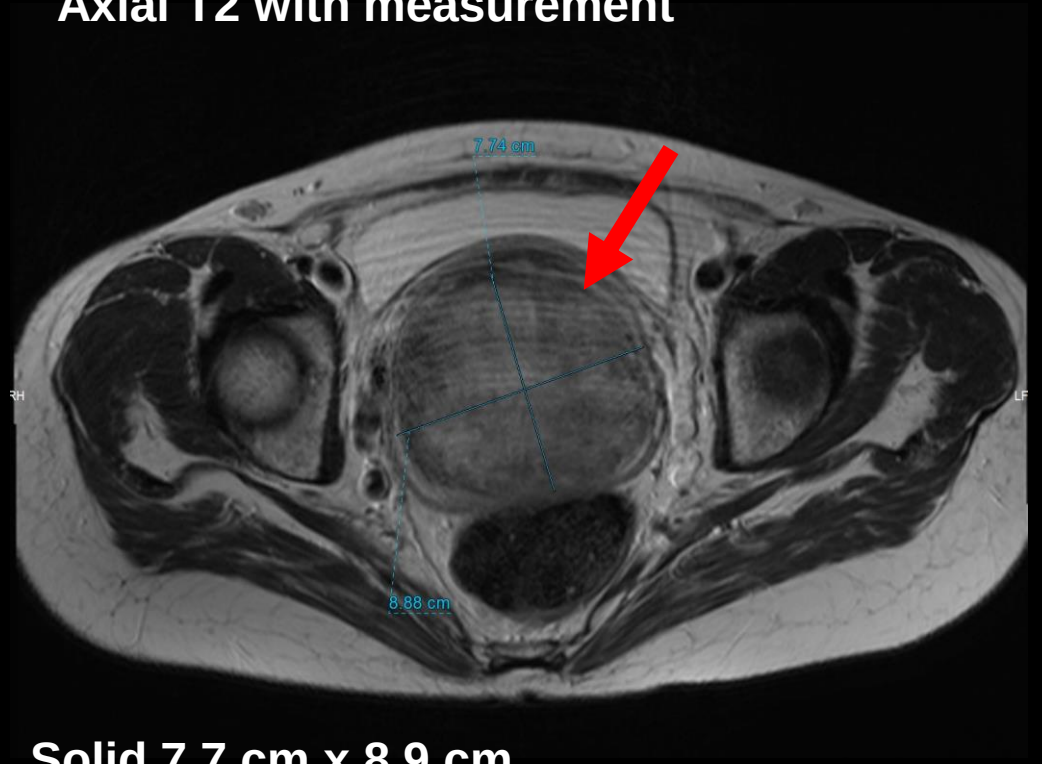


Findings (labeled)

Axial T1



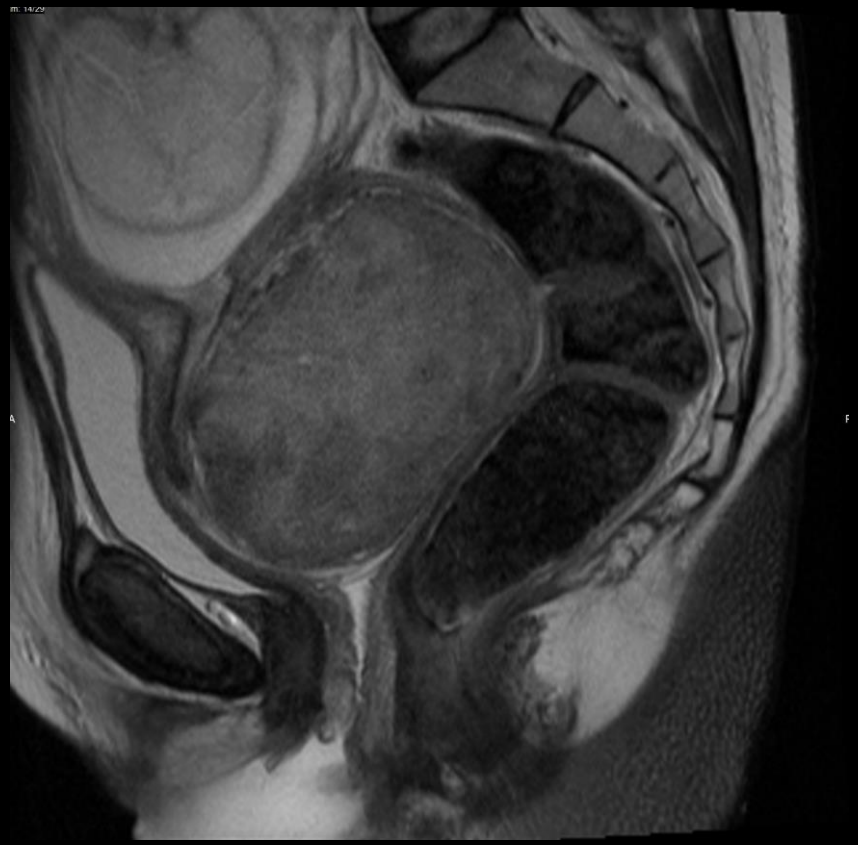
Axial T2 with measurement



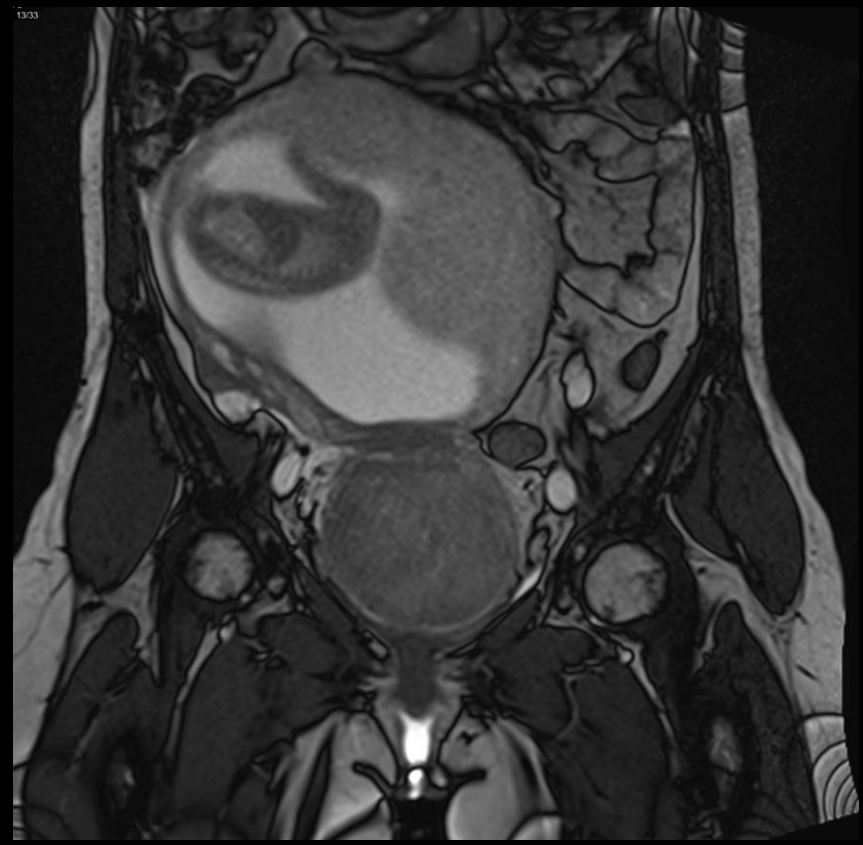
Solid 7.7 cm x 8.9 cm

Findings (unlabeled)

Sagittal T2

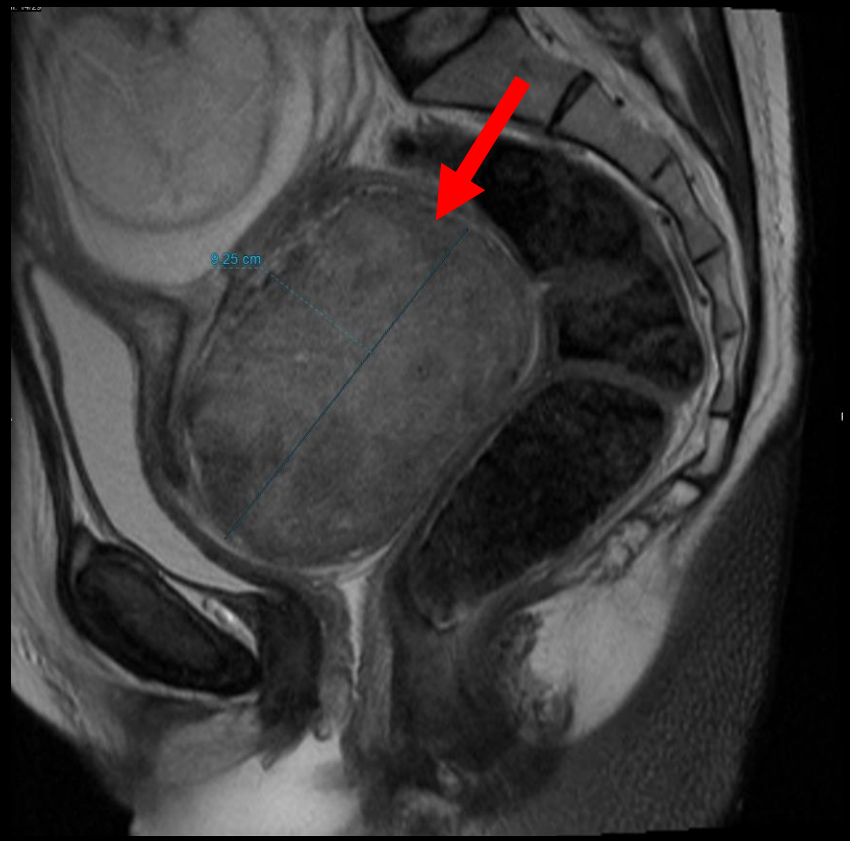


Coronal TrueFISP



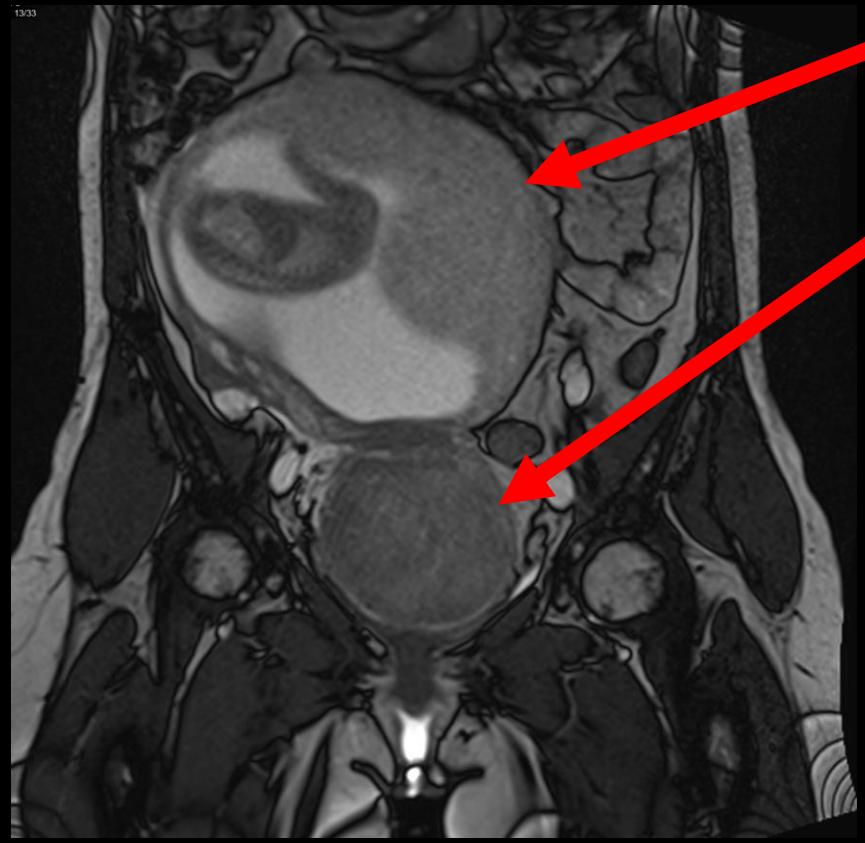
Findings (labeled)

Sagittal T2 with measurement



Solid 9.3cm mass

Cor fluid sequence



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:

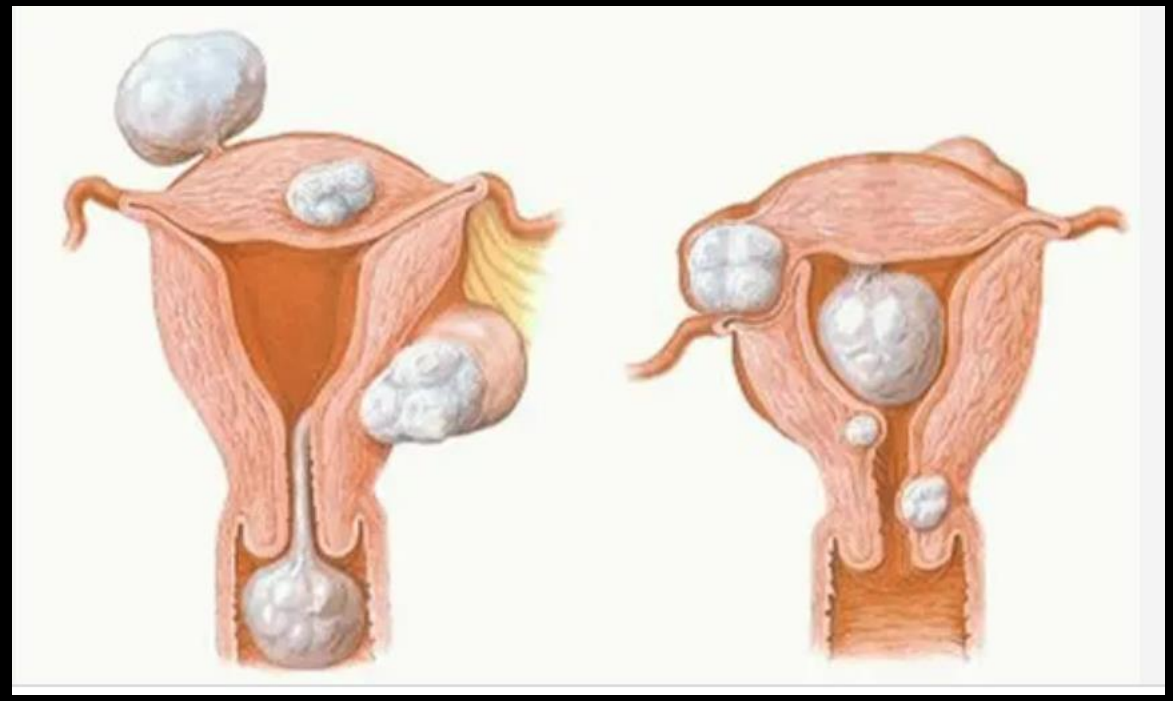
Cervical 9.2 cm mass most consistent with a fibroid

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



Uterine Fibroids Management

- 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
2. American Association of Gynecologic Laparoscopists (AAGL): Advancing Minimally Invasive Gynecology Worldwide. AAGL practice report: practice guidelines for the diagnosis and management of submucous leiomyomas. J Minim Invasive Gynecol. 2012 Mar-Apr;19(2):152-71
3. American Association of Gynecologic Laparoscopists (AAGL): Advancing Minimally Invasive Gynecology Worldwide. AAGL practice report: practice guidelines for the diagnosis and management of submucous leiomyomas. J Minim Invasive Gynecol. 2012 Mar-Apr;19(2):152-71
4. Vilos GA, Allaire C, Laberge PY, et al. The management of uterine leiomyomas. J Obstet Gynaecol Can. 2015 Feb;37(2):157-81