

# Uterine Scar Endometriosis

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06/24/2021

RAD 3030

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# Clinical History

- 35y.o. female with a PMH notable for C-section in 2011 and a L ovarian cyst (likely benign) presented to the LBJ ED on **02/08/2018** with suprapubic abdominal pain.
- She first noted the mass in July 2016. The mass is tender to palpation. The pain is constant, worse with sudden movement, and cyclic with her menstrual cycle. Pelvic and incisional pain is partially relieved with oral contraceptives.
- Additional symptoms: dysuria, dizziness
- She denies changes in bowel and bladder function.

# Clinical History

- Previous ED visits
  - **04/29/2017**: worsening RLQ pain radiating to R flank, acutely worse the evening of presentation
    - Physical exam: Abdomen is soft, with no distension and no mass. There is tenderness and guarding, but no rebound.
    - Pain in RLQ on palpation- no masses palpated
  - **06/07/2017**: worsening intermittent RLQ pain radiating to R flank, gradual onset
    - ROS: dysuria (burning sensation), nausea and shortness of breath (with activity)
    - Physical exam: Abdomen is soft, bowel sounds are normal. There is tenderness in the right lower quadrant and at McBurney's point, but no rebound.

# Relevant Imaging

CT – 04/29/2017

**Axial**



**Coronal**



CT – 06/07/2017

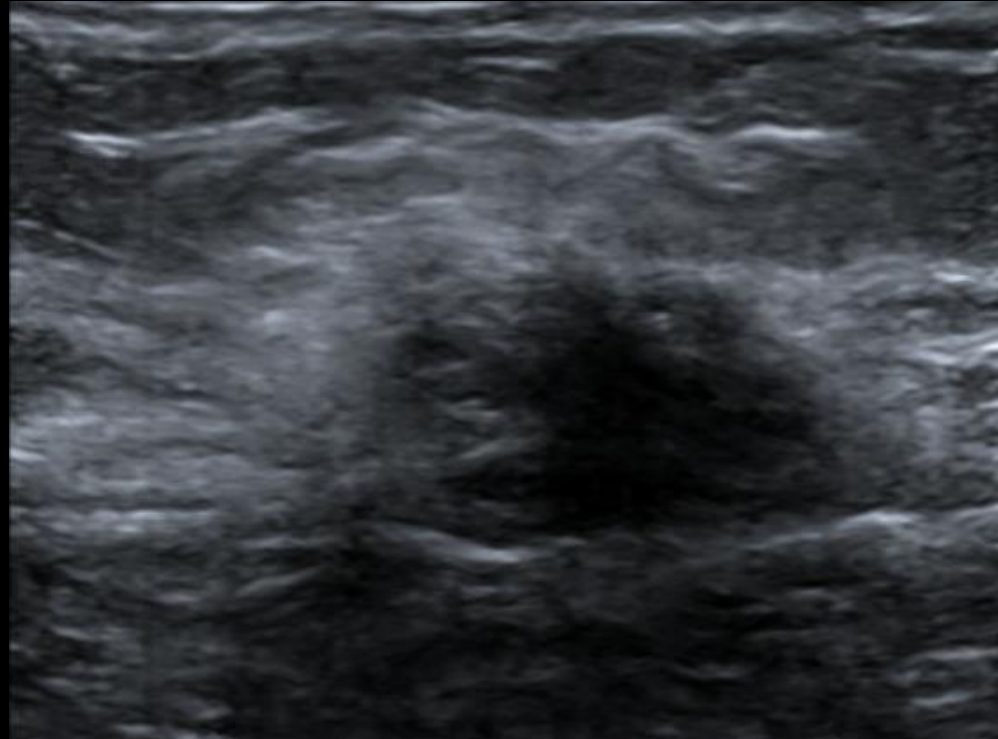
**Axial**



**Coronal**



# Ultrasound of tissues in RLQ– 03/09/2018



# Key Imaging Findings

- Both CTs in 2017 were ordered to rule out appendicitis
  - No signs of appendicitis in either
  - Right soft tissue mass visible in both CTs
    - Neither noted in either radiology report
- Ultrasound biopsy of abdominal wall ordered after years of recurrent RLQ pain
  - Pathologic diagnosis consistent with endometriosis



# Differential Diagnosis

- Hypertrophic scar (keloid)
- Tumoral mass (desmoid tumor)
- Suture granuloma
- Primary malignancy of the abdominal wall

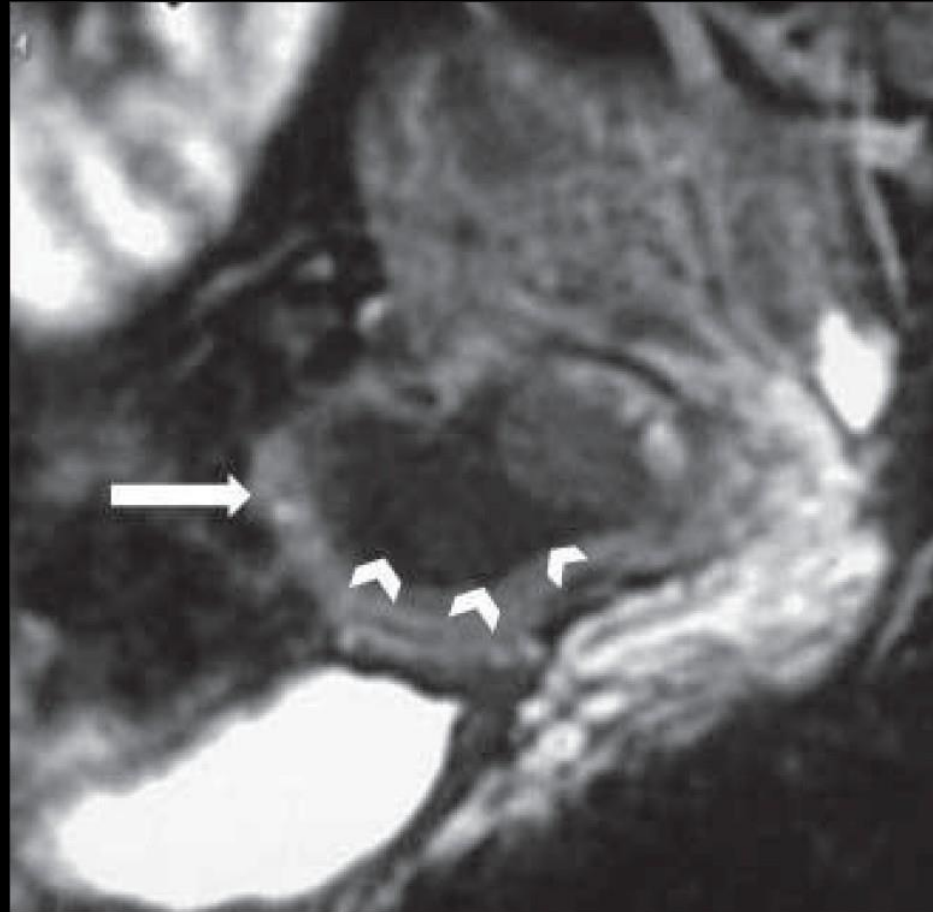
# Discussion - Pathophysiology

- Definitive diagnosis only made by histopathologic analysis
  - Presence of endometrial glands and stroma within the lesion
- Hyperplasia of smooth muscle tissue within the soft tissue and musculature
  - Anterior abdominal wall
  - Pelvic wall
- Presence of hemosiderin-filled macrophages is highly indicative

# Discussion – Clinical symptoms

- Small, tender abdominal or pelvic wall mass associated with a prior surgical incision site
  - C-section, hysterectomy, other OBGYN procedures
  - Increased suspicion if pain is cyclical and corresponds with menses
  - Pain is ill defined and spreads throughout the abdominal or pelvic wall
- Symptoms can manifest several months to many years after
- Patients may be asymptomatic, and endometriosis may be incidentally discovered on imaging performed for other reasons

# Discussion- MRI findings



# Treatment

- 03/21/2018: Diagnosed with abdominal wall endometrioma
  - Pathologic diagnosis based on 03/09/2018 excisional biopsy ultrasound
- 03/23/2018: Excision of abdominal wall mass

# Final Diagnosis

- Scar endometriosis of the abdominal wall

# Imaging Costs

- Cost of imaging

- CT Scan of Abdomen: \$1750-\$9500
- Ultrasound guided needle biopsy: \$117
- Total cost: \$3617-\$19,117
  - Variable factors: setting (hospital vs outpatient), facility services, insurance

- Sources

- <https://www.newchoicehealth.com/ct-scan/cost>
- <https://khn.org/news/bill-of-the-month-facility-fees-biopsy-bill-september/>

# Take Home Points / Teaching points

- Relaying clinical findings to the radiologist
- Differential diagnoses
- Pathology beyond the “reason” for imaging



# References

- Lahiri AK, Sharma K, Busiri N. Endometriosis of the uterine cesarean section scar: A case report. *Indian J Radiol Imaging*. 2008;18(1):66-68. doi:10.4103/0971-3026.37111
- Endometriosis of Abdominal and Pelvic Wall Scars: Multimodality Imaging Findings, Pathologic Correlation, and Radiologic Mimics. Rita Gidwaney, Ruth L. Badler, Benjamin L. Yam, John J. Hines, Vlada Alexeeva, Virginia Donovan, and Douglas S. Katz. *RadioGraphics* 2012 32:7, 2031-2043
- <https://radiopaedia.org/articles/endometriosis?lang=us>



Questions?