**Background/Purpose**

- Leiomyomas are most common pelvic tumor in women, but rarely seen outside of the uterus.^
- Only ~100 cases reported in the literature.^
- To raise awareness of retroperitoneal leiomyomas as a source of pelvic pain and how to approach evaluation and management.

**Case Report**

- 34yo nulliparous female with no previous surgeries.
- Presenting symptoms: pelvic cramping, rectal pressure, dysmenorrhea.
- Ultrasound/Computed Tomography (CT): adnexal mass of unclear origin.
- Magnetic Resonance Imaging (MRI): heterogeneous mass containing macroscopic fat next to left ovary with possible "claw sign".
- Negative tumor markers.
- Diagnostic laparoscopy: 7cm globular mass retroperitoneally not involving uterus, adnexa, ureter, or sigmoid.
- Pathology: leiomyoma and endometriosis.

**Patient Characteristics at Time of Diagnosis**

Systematic review of 105 case reports:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean ± standard deviation of age</td>
<td>46 ± 13</td>
</tr>
<tr>
<td>Had no previous gyn surgery history</td>
<td>70%</td>
</tr>
<tr>
<td>With current or history of uterine fibroids</td>
<td>40%</td>
</tr>
<tr>
<td>Asymptomatic at presentation</td>
<td>25%</td>
</tr>
</tbody>
</table>

**Presentation:** nonspecific or bulk symptoms
- Fatigue
- Discomfort
- Back and/or pelvic pain
- Constipation
- Urinary incontinence

**Evaluation and Treatment**

- Pelvic pain workup should start with pelvic US.
- MRI useful when poor delineation noted on US, rapid growth seen, malignancy suspected, or for surgical planning.
- Treatment: complete surgical excision.
  - If concern for malignancy, recommend referral to gynecology oncology.
  - Recurrence is rare, but long-term follow up recommended.
  - Minimize estrogen/progesterone usage.
  - Consider GnRH agonists or aromatase inhibitors for recurrence.

**Conclusion**

**Key Findings**

- Extrauterine leiomyomas should be part of a differential for a patient with pelvic pain and mass of unknown origin.
- MRI can be useful if US inconclusive.

**Further Research Needs**

- Long-term follow up surveillance intervals.
- Efficacy of proposed treatments for recurrence.

**References**


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**Pathophysiology**

Two leading theories:

1. Power morcellation leading to seeding of cells through abdomen.
2. Pedunculated fibroid that torses on itself, attaches to other tissue and neovascularizes.