



Incidental Finding of a Recurrent Uterine Leiomyosarcoma After a Total Hysterectomy

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Introduction

- Uterine Leiomyosarcoma is a rare malignancy that affects only 6.4 out of a million women.¹
- This malignancy is more common in black women than white women.¹
- Leiomyosarcoma is the most common type of soft tissue sarcoma. Forty percent of leiomyosarcoma are uterine.²
- They are usually diagnosed between the ages of 40 and 50.²
- Leiomyosarcoma often presents either as vaginal bleeding or a palpable abdominal mass.³
- Surgical resection is the most common treatment, but depending on the stage upon patient presentation, chemotherapy and/or radiation may be added to maximize treatment success.⁴
- Surgery is the only form of treatment with a proven mortality benefit.⁵
- While many patients with leiomyosarcoma may obtain remission after initial treatment, the malignancy tends to recur with a five year survival rate of 42%.³
- Metastases have been detected anywhere from 4 months to 271 months after initial diagnosis and treatment. The lung is the most common site of metastasis, followed by the peritoneum and bones. Up to 50% of patients may also experience local recurrence, which is often accompanied by distant metastasis.⁶
- Those with local recurrence have a higher rate of mortality from leiomyosarcoma.⁶
- Surveillance after initial resection is recommended with exams every three to four months for the first two to three years, and every six to twelve months thereafter. CT scans are performed every three to six months for the first three years, and every six to twelve months for two years.⁷

Table 1: Staging of Uterine Leiomyosarcomas⁷

Stage	Description
I	Limited to the uterus
II	Extends outside the uterus but not outside the pelvis
III	Extends into the abdominal tissues
IV	Invades the bladder or rectum; distant metastases

Case Description

History

- Sixty year old Caucasian female
- Referred to surgery after a large abdominal mass was discovered by her primary care provider during a routine physical exam.
- Denied recent weight loss, constipation, diarrhea, or symptoms of gastrointestinal bleeding. Reported recent early satiety.
- Past medical history significant for menorrhagia and symptomatic anemia, leading to a myomectomy for symptomatic uterine fibroids. This revealed uterine leiomyosarcoma and led to a total abdominal hysterectomy and bilateral salpingo-oophorectomy. Follow up exam and scans revealed no evidence of recurrence.
- Family and social history noncontributory.

Physical Exam

- Vitals on admission:
 - Oral Temperature – 97.7°F
 - Heart Rate – 81 beats per minute
 - Blood Pressure – 132/88 mmHg
 - Respiratory Rate – 16 breaths per minute
 - Oxygen Saturation – 97% on room air
- Abdomen obese and distended with a large firm, nontender, palpable mass extending from the pelvis to just below the umbilicus and across both lower quadrants. No rebound or guarding
- Normoactive bowel sounds
- No palpable lymphadenopathy
- Remainder of the physical exam, including HEENT, heart, lungs, and neurovascular was unremarkable

Diagnostic Results

- Complete blood count and basic metabolic panel was notable for leukocytosis of 12.2, all other values were within normal limits
- Carcinoembryonic antigen and cancer antigen 19-9 were within normal limits; Cancer antigen 125 was elevated at 40.8.
- CT of the abdomen and pelvis revealed a round mass in the lower abdomen and pelvis with irregular borders measuring 23 cm. No other masses or pertinent findings seen.
- Differential diagnosis after history, physical, and diagnostic testing included:
 - Desmoid tumor of the mesentery
 - Ovarian neoplasm
 - Lymphoma
 - Uterine leiomyosarcoma

Fig 1: Timeline of Leiomyosarcoma Progression and Management

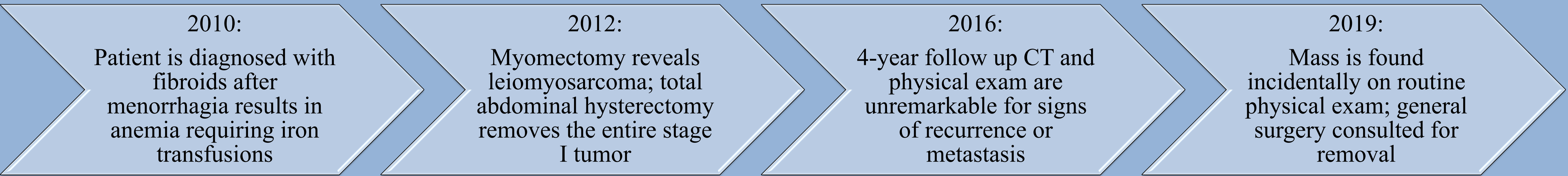


Fig 2. Preoperative Computed Tomography

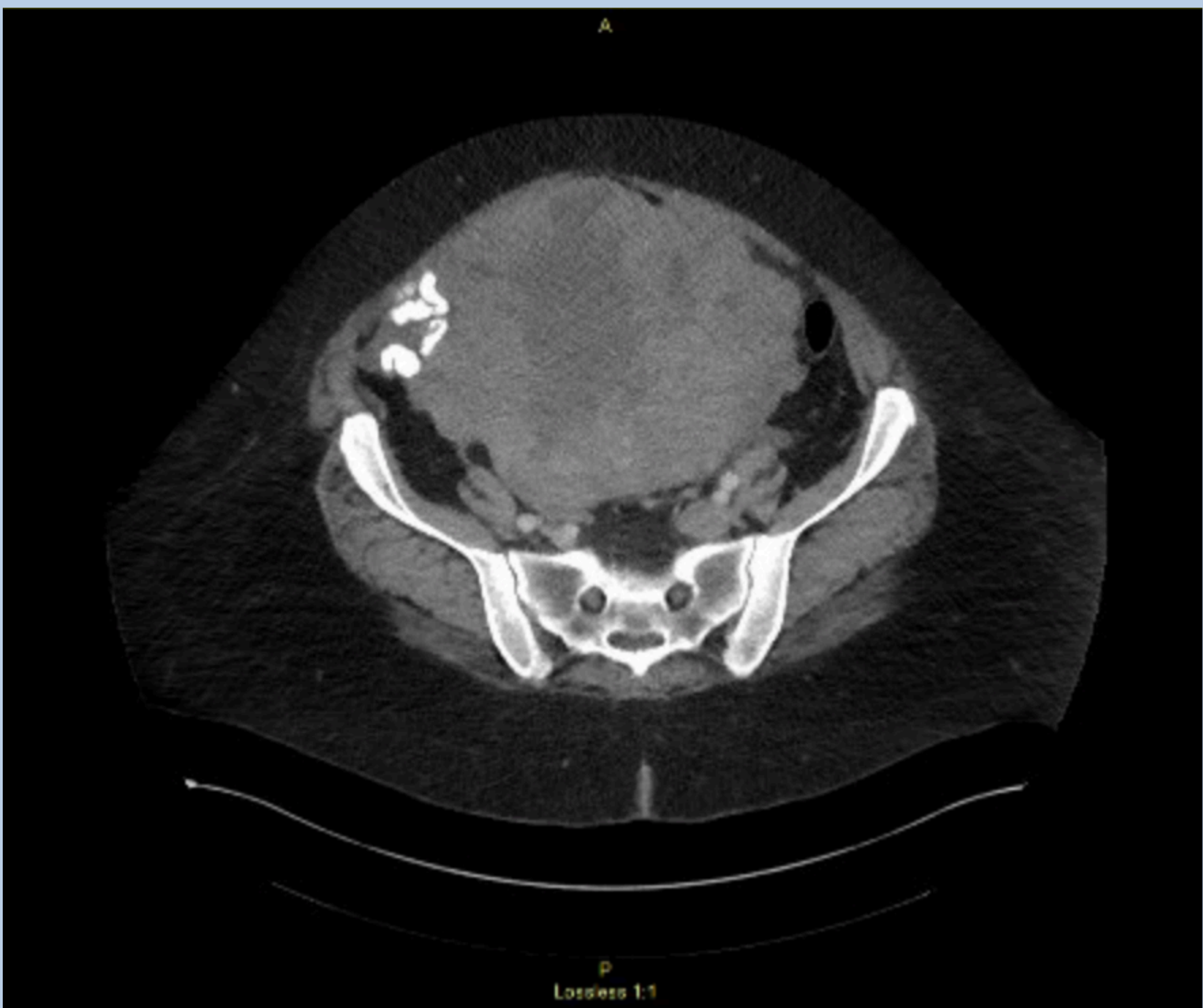
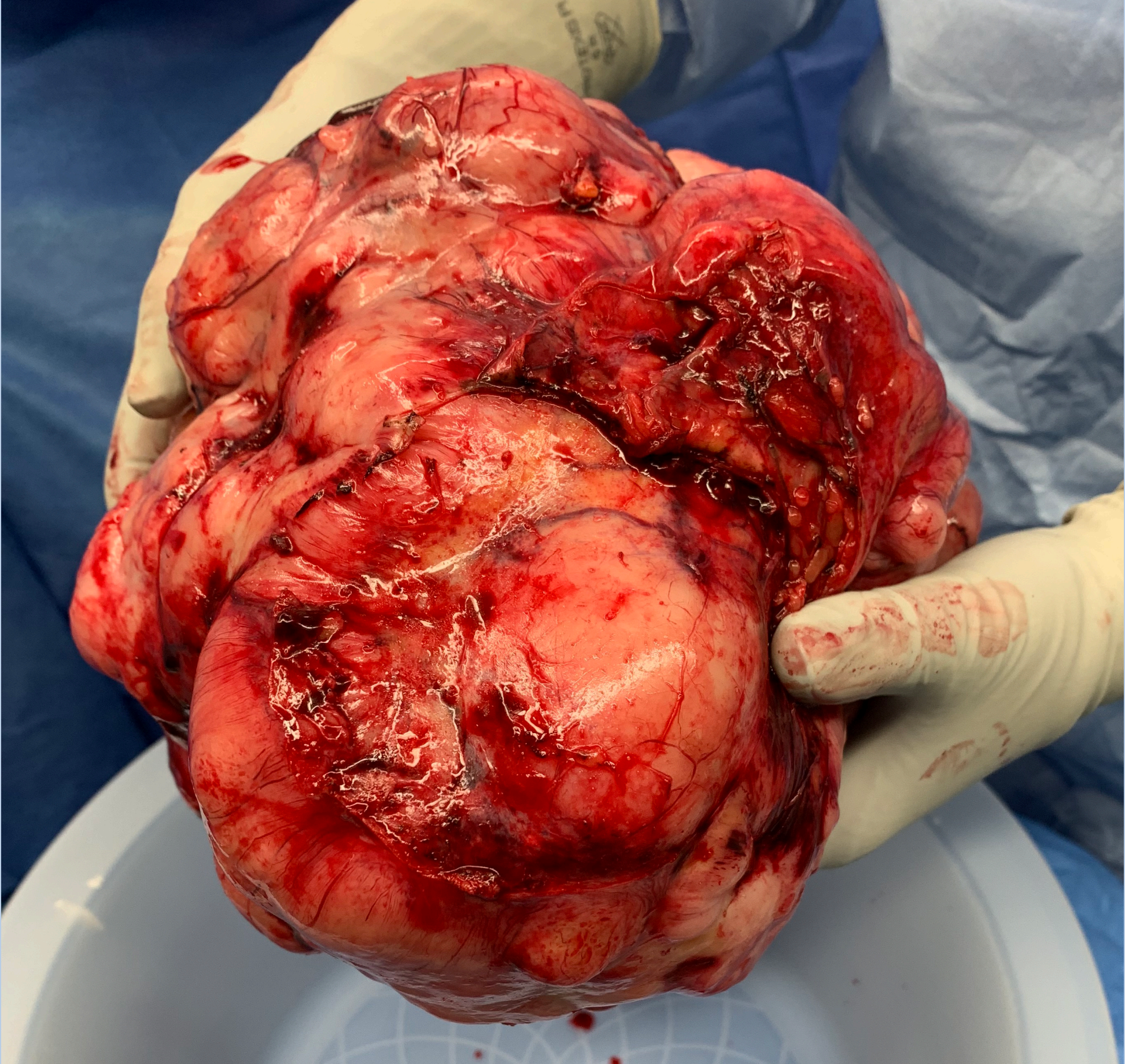


Fig 3. Excised leiomyosarcoma



Discussion

- Patients with stage 1 leiomyosarcoma and complete surgical resection are usually followed closely for five years, during which recurrence is common.⁷
- Treatment for local recurrence may include surgical resection with intraoperative radiation, perioperative radiation, and systemic chemotherapy.⁷
- Most episodes of recurrence are within five years of initial presentation, with only 6-9% after 5 years.⁸

Case Outcome

- The patient was scheduled for an exploratory laparotomy. The mass was found intraoperatively to be adherent to parts of the mesentery, small bowel and the urinary bladder. It was surgically excised in its entirety and the resulting damage to the urinary bladder was repaired prior to closure.
- The patient remained in the hospital for 5 days, until bowel and bladder function had returned. She was stable upon discharge and was scheduled to follow up in two weeks for a wound check and staple removal.
- She was referred to oncology for further workup for metastasis.
- The final diagnosis was recurrent uterine leiomyosarcoma, confirmed by pathology

Conclusions

- Thorough and consistent follow up for patients with leiomyosarcoma is important due to the high risk of recurrence despite complete surgical resection.
- Thorough physical exams may also play a key role in detecting late recurrence, when surveillance scans are no longer routine.
- Patient education and counseling is important to ensure patients know what signs and symptoms may be suspicious for recurrent or metastatic disease.

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