Mesenteric Leiomyosarcoma Mistaken as Subserosal Fibroid: A Rare Case Report

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Mesenteric leiomyosarcoma is a rare entity. It is usually seen in middle-aged individuals. The tumor usually remains asymptomatic for longer duration until it acquires a big size. Surgical removal is the main modality of treatment. Common symptoms of the patients are usually pain or distension abdomen. Pre-operative diagnosis is usually difficult. Ultrasonography and computed tomography scan can help in the diagnosis. In this case, the tumor was mistaken for subserosal fibroid but intraoperatively turned out a mesenteric mass with retroperitoneal extension. On histopathological examination, it was a leiomyosarcoma. Recurrence can occur. Early diagnosis and wide surgical resection can improve the prognosis of the patient.

Keywords: Abdominal hysterectomy, Mesenteric leiomyosarcoma, Mesenteric tumor, Subserosal fibroid

INTRODUCTION

The leiomyosarcoma is an extremely rare tumor with a reported incidence of 1:350,000.¹ The leiomyosarcoma is a malignant mesenchymal tumor that derives from the smooth muscle lineage.² The differential diagnosis includes leiomyosarcoma and other mesenteric tumors such as gastrointestinal stromal tumors (GIST), malignant myofibroblastic tumor, solitary fibrous tumor, liposarcoma, and lymphoma.³ The ultrasonography or computed tomography scan of the abdomen can help the diagnosis. The presence of cystic or necrotic malformation within the tumor, however, can mislead the diagnosis to a mesenteric cyst, pancreatic pseudocyst, or uterine tumor.⁴⁻⁶ Treatment strategies for mesenteric leiomyosarcoma vary. Surgical excision with a wide margin of normal tissue is most effective since adjuvant chemotherapy or radiotherapy is unreliable.⁷

CASE REPORT

We report here a case of a 50-year-old multigravida postmenopausal female patient presented to the outpatient gynecology department with complaints of pain lower abdomen and mass abdomen since 3 years. The patient was having an ultrasound report showing a large, predominately hypoechoic lesion seen arising from the uterine fundus? Subserosal fibroid, of size 8 cm × 8.8 cm × 9.5 cm, few cystic changes are also noticed in it. Sign of degenerative changes seen in (Figure 1). Findings were suggestive of subserosal fibroid uterus. The patient was postmenopausal since 4 years. The patient was P2L2 with a history of previous two caesarean sections. Last child birth and tubectomy were done 28 years ago. On examination, the general physical examination was within normal limits, vitals were stable. Chest and the cardiovascular system were normal. On per abdomen examination, a vertical midline infraumbilical scar of previous two cesarean sections was present, an irregular mass arising from the pelvis of size 18-20 weeks, non-tender, firm to hard in consistency with restricted mobility. On per speculum examination, cervix and vagina were healthy. On per vaginal examination, uterus 18-20 weeks size, irregular, firm to hard in consistency, non-tender with restricted mobility. Probable diagnosis of fibroid uterus was kept. The patient admitted in gynecology ward and planned for total abdominal hysterectomy with bilateral salpingo-oophorectomy. Intra-operatively, the uterus was grossly healthy of postmenopausal size, bilateral tubes, and ovaries were grossly normal and atrophic. There was a mass of size 10 cm × 15 cm size, irregular in shape, lobulated, restricted mobility, with some retroperitoneal extension on left side, with gut adhesions, firm in consistency, and with rich vascular connections.

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with mesentery and ovarian vessels (Figure 2). General surgeons were called intra-operatively; found that it was a big mesenteric mass present intra-peritoneal extending from the left side of the pelvis through left infundibulopelvic ligament with retroperitoneal extension. Mass excised after ligating the various vascular connections and opening the retroperitoneum. Left ureter preserved. Intra-abdominal drain kept. Specimen sent for histopathological examination. Post-operatively patient not all allowed orally for 48 h. The rest of the post-operative period was uneventful and patient discharged on 5th post-operative day. On follow-up, histopathological examination revealed that it was a mesenteric leiomyosarcoma (Figures 3 and 4).

**DISCUSSION**

The mesentery presents a common site of metastasis of gastrointestinal malignancies. However, primary tumors originating between the leaves of the mesentery are quite uncommon, with the lymphoma being the most common. Other primary mesenteric malignancies include leiomyosarcomas, liposarcomas, fibrosarcomas, malignant teratomas, or hemangiopericytomas. Leiomyosarcomas present the most mesenchymatous malignant tumor of the mesentery. These tumors are today referred to as GIST, and share common immunohistologic patterns including C-kit (CD117), CD34, or actin. Mesenteric tumor is considered to arise from mesodermal elements of the mesenteric blood vessels, fibrous tissue, and nerves. Common symptoms of these tumors are a palpable mass, abdominal distension, and pain. However, most of these tumors tend to be asymptomatic and grow to a large size by the time of diagnosis, since the mobility and elasticity of the mesentery allow tumor to occupy a large intra-peritoneal space without causing any obstructive symptoms. Lee noted that surgeons should attempt to improve the survival rate by radical removal of all smooth muscle tumors, including the removal of at least 4 inches of healthy tissue on all sides of tumor, plus the corresponding mesentery.

![Figure 1: Ultrasound report showing a large, predominately hypoechoic lesion seen arising from the uterine fundus? Subserosal fibroid, of size 8 cm x 8.8 cm x 9.5 cm, few cystic changes are also noticed in it, sign of degenerative changes in it](image1)

![Figure 2: Intra-operative picture of mesenteric mass turned out to be a mesenteric leiomyosarcoma after histopathological examination](image2)

![Figure 3: Histopathological picture of leiomyosarcoma showing smooth muscle bundles with vascularized connective tissue in between (H and E stain)](image3)

![Figure 4: Tumor consists of spindle cells with high cellularity and hyperchromatic nuclei (H and E stain)](image4)
Pathologically, leiomyosarcoma exhibits high mitotic activity. Survival is influenced by the histological grade of mesenteric leiomyosarcomas, based on cellular differentiation, cellularity of the tumor, anaplasia, and number of mitosis per high power field. Ranchod and Kampson showed frequency of mitoses to be the most useful indicator of malignant potential. The tumor tends to local recurrences of diffuse peritoneal and hepatic metastasis. Hence, post-operative follow-up is must.

CONCLUSION

Primary mesenteric leiomyosarcomas are very rare tumors. Treatment is surgical resection of the tumor. Diagnosis is confirmed by histopathological examination. Early diagnosis and wide surgical resection can improve the survival of the patient.

REFERENCES


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