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Case Report

Isolated Metastasis of Uterine Leiomyosarcoma to the Small Bowel Diagnosed Initially as Uterine Leiomyoma: A Case Report and Review of the Literature

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Abstract

Introduction: Uterine sarcoma is rare, Leiomyosarcoma is the main type of sarcoma that may resemble to leiomyoma. Metastasis to small bowel is extremely rare, treatment is chemotherapy and the prognosis is unfavorable.

Case presentation: A 41-year-old Moroccan women, with no significant past medical history, was diagnosed with intracavitary myoma. The patient underwent subtotal hysterectomy with bilateral salpingectomy. Pathology findings indicated high grade leiomyosarcoma. The patient was re-operated, she underwent bilateral oophorectomy, omentectomy, segmental small bowel resection and excision of uterine cervix. Histopathology revealed a metastatic lesion of the primary uterine leiomyosarcoma of the small bowel. The patient was treated by chemotherapy: Doxorubicin 75 mg/m^2 every 3 weeks for 6 cycles. The follow-up of this patient is 10 months and her ECOG is 0.

Conclusion: Leiomyosarcoma is the main type of sarcoma that may resemble to leiomyoma. Metastatis to small bowel is rare, treatment is chemotherapy and the prognosis is poor.

Keywords: Uterine leiomyosarcoma; Small bowel; Surgery; Chemotherapy

Introduction

Uterine sarcoma is rare, Leiomyosarcoma is the main type of sarcoma that may resemble to leiomyoma. Lungs, liver, bones, and brain are the common sites of metastases through hematogenous dissemination [1]. Metastasis to small bowel is extremely rare, treatment is chemotherapy and the prognosis is unfavorable [2,3].

Case Report

A 41-year-old Moroccan women, with no significant past medical history, presented abdominal pain and uterine bleeding. Physical examination revealed an enlarged uterus. A pelvic ultrasound showed echogenic intracavitary myoma finely calcified measuring 5 × 6 × 7 cm. Preoperative Magnetic resonance imaging MRI was not realized. The patient was operated, she underwent subtotal hysterectomy with bilateral salpingectomy. Pathology findings indicated high grade leiomyosarcoma submucosal extensive and necrotic. Postoperative magnetic resonance imaging MRI of abdomen and pelvis revealed sequelae of subtotal hysterectomy with a cervix with a normal signal (Figure 1). Chest CT was normal. The patient was re-operated, she underwent bilateral oophorectomy, omentectomy, segmental small bowel resection the jejunum and excision of uterine cervix.

Histopathology revealed a metastatic lesion of the primary uterine leiomyosarcoma of the small bowel (Figure 2). It seems to be a metastasis and not direct extension. Chemotherapy treated the patient: Doxorubicin 75 mg/m^2 every 3 weeks for 6 cycles. Follow-up of this patient is planned for every 3 months for 2 years, every 6 months for 3 years, and annually for life. Her follow-up is 10 months and her ECOG is 0.

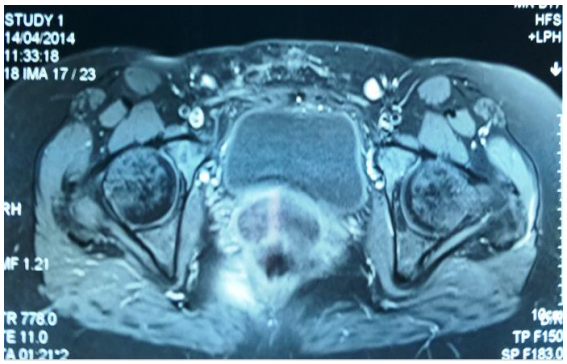

Figure 1: Axial MRI slice: Sequelae of subtotal hysterectomy with a cervix with a normal signal.

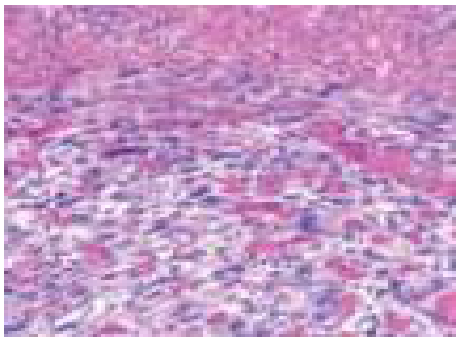

Figure 2: Leiomyosarcoma, infiltrating mucosa of small bowel hematoxylin and eosin, x50.

Discussion

Benign uterine leiomyomas are the most common pelvic neoplasm in women estimated lifetime risk of 70% in white women and 80% in black women [4,5]. Uterine sarcoma is a rare heterogeneous group of tumors of mesenchymal origin, 3 to 7/100,000 in the United States

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population, it represents 8% of uterine malignancies. They comprise leiomyosarcoma, endometrial stromal sarcoma, undifferentiated endometrial sarcoma, and Aden sarcoma [6] and has a poor prognosis [7]. Leiomyosarcoma is the most common histological subtype of uterine sarcomas. it may result from a sarcomatous transformation in a benign leiomyoma in 0.2% of cases but the great majority arise *de novo* [8].

For both leiomyomas and sarcoma, the primary presenting symptoms are abnormal uterine bleeding, pelvic pain or pressure, or a pelvic mass, making the difference between leiomyoma and sarcoma difficult [9-11].

Leiomyosarcoma is the main type of sarcoma that may resemble to leiomyoma. Metastatic neoplasm may be found in women with sarcoma but not with leiomyomas. Uterine sarcomas spread via intra-abdominal, lymphatic, or hematogenous routes. Hematogenous spread is most often to the lungs. Uterine leiomyosarcoma can invade small bowel by direct extension, hematogenous dissemination, implantation, or by lymphatic route [12].

There is no pelvic imaging modality that can reliably differentiate between benign leiomyomas and uterine sarcomas. Leiomyomas and uterine sarcomas appear similar; both are focal masses within the uterus and both can have central necrosis. Pelvic ultrasound followed by MRI is the most useful imaging strategy [13].

Uterine sarcomas is a histologic diagnosis, and they are most commonly diagnosed following surgery for presumed leiomyomas. Anatomopathology criteria to the diagnosis of uterine sarcomas are: mitotic index, cellular atypia, cellularity, mitotic index and geographic areas of coagulative necrosis separated from viable neoplasm. The more features exhibited by the lesion, the more likely it is to have clinically aggressive behavior [14,15].

Leiomyosarcoma of small bowel metastasis from uterine leiomyosarcoma is treated by chemotherapy: doxorubicin alone, gemcitabine alone, or gemcitabine plus docetaxel [16]. Surgical resection is the treatment for lesions confined to the uterus. small bowel leiomyosarcoma secondary to uterine leiomyosarcoma is a sign of advanced disease with poor prognosis, with a five-year survival rate ranging from 18.8% to 68% [17].

Conclusion

Leiomyosarcoma is the main type of sarcoma that may resemble to leiomyoma. Metastatis to small bowel is rare, treatment is chemotherapy and the prognosis is unfavorable.

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