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Case Report

Uterine Leiomyosarcoma in a Patient with an HIV Infection : A Report Case

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Abstract

Leiomyosarcoma (LMS) is a rare malignant mesenchymal tumor, Uterine leiomyosarcoma (ULMS) is the most common location for LMS that accounts for almost 2 % of all uterine malignant tumors. The ULMS prevalence is high during pre and perimenopause. It's aggressivity is difficult to treat because of the resistance to regular therapies. The symptoms of ULMS are similar to leiomyomas, therefore the final diagnosis is confirmed after the anatomopathological study. The main treatment of early stages of ULMS is based on the surgical resection of the mass. Adjuvant chemotherapy for advanced stage of ULMS increase the survival, many clinical trials prouves it's efficience for advanced and recurrent ULMS. Althought uterine leiomyosarcoma is diagnosed in an early stage, it has a severe prognosis.

Keywords

Uterine leiomyosarcoma, Malignant tumor, Leiomyoma, Hysterectomy.

INTRODUCTION

Uterine leiomyosarcoma is a rare malignant tumor that occurs for 2-5% of all uterine malignant tumors [1]. The predominance of ULMS is after the fourth decade and represent less than 3% of all genital tract [2]. The clinical presentation of ULMS is identical to leiomyomas, such as abnormal uterine bleeding, abdominal pain, and gastrointestinal or genitourinary symptoms [3]. There is no specific exam that can distinguish between uterine leiomyosarcoma and benign uterine tumors. Therefore the diagnosis is predominantly confirmed on the histological exam of the mass after surgery [4]. We report a case of a 39 year-old female, with an HIV infection, who presented with abnormal uterine bleeding for one week and abdominal pain evolving progressively for two years. An hysterectomy was performed, and a leiomyosarcoma was confirmed after the histological study of the tumor.

CASE PRESENTATION

The patient is a 39-year-old female patient, with a history of untreated HIV infection, IIG I P, with two childs delivered by natural birth. The patient presented to the gynecological and obstetric emergency department with complaints of abnormal uterine bleeding for one week and abdominal pain evolving progressively for two years. Examination revealed a hemodynamically stable patient, abdominal and pelvic examination showed multiple mass in the abdominal and pelvic region. Some bleeding was showed after the vaginal exam and cervix aspect was normal. An ultrasound revealed a enlarged globular uterus, site of myomatous formations, associated to a large abdominopelvic mass, heterogeneously echogenic, vascularized on color Doppler; it comes into contact with the pancreas posteriorly and the hepatic hilum superiorly and to the right, with compression of the right ureter responsible for minimal right ureteropylocalic dilatation upstream. Biological tumors markers were normal. And the CD4 count was high. An abdomino-pelvic CT scan showed a multiple fibroids uterus and a voluminous abdomino-pelvic tissue mass of uterine origin, corporal-isthmic, poorly limited with irregular contours, heterodense with calcifications, strongly and heterogeneously enhanced after injection, delimiting areas of necrosis, measuring 23x18x18 cm. (Figure 1). A laparatomy hysterectomy was performed (Figure 2).

Postoperative follow-up was straightforward. The pathology result revealed a high grade uterine leiomyosarcoma and she was referred to the oncology department for adjuvant chemotherapy.

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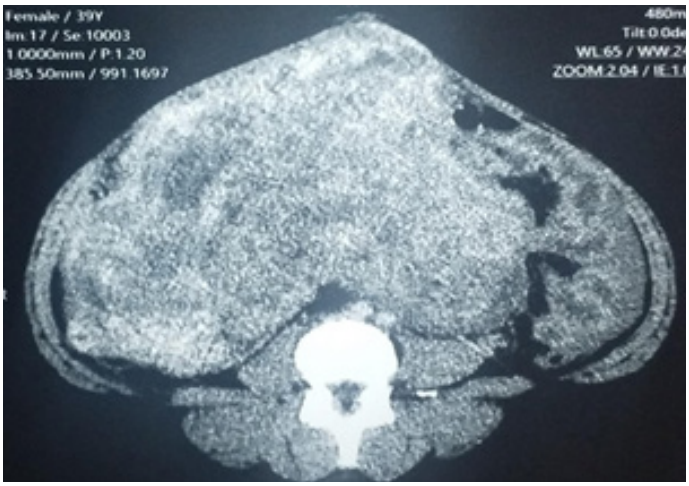

Figure 1: Voluminous abdomino-pelvic tissue mass of uterine origin.

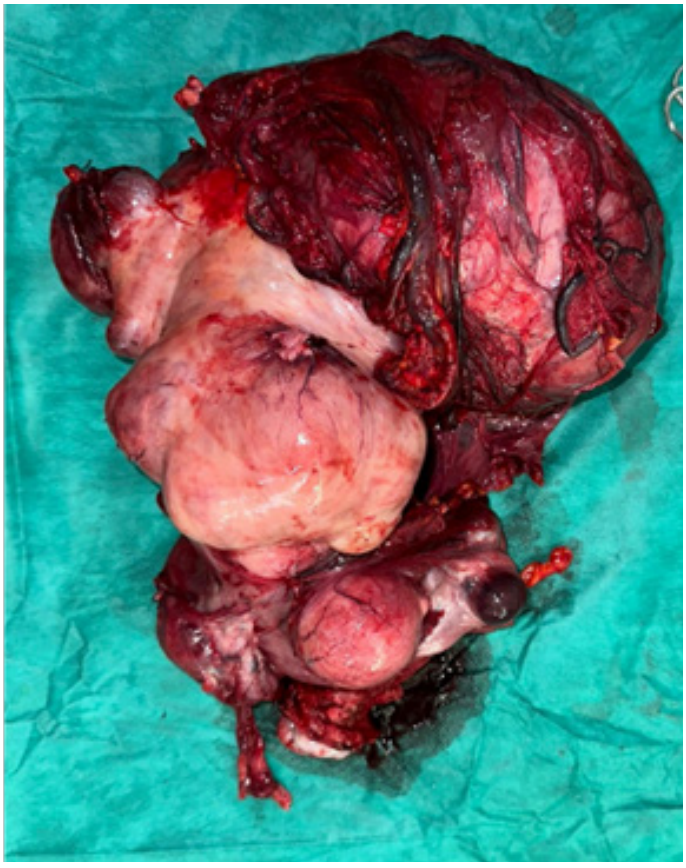

Figure 2: Hysterectomy with multiple masses of uterus.

DISCUSSION

Leiomyosarcoma (LMS) is the most frequent soft tissue sarcoma, it can affect any part of the human body in adults and can occur in any part of the body [5]. Uterine leiomyosarcoma (ULMS) represents 2% to 5% of all uterine malignant tumors [6], and six out of every 1,000,000 women in the USA are develop a Uterine leiomyosarcoma each year [7]. The average age of the diagnosis is around the pre and perimenopause in the early 50s [8].

The pathophysiology of uterine leiomyosarcoma is remaining unclear and most patients have no predisposing factors for developing ULMS, however, the main risk factors are radiation therapy to the pelvis, long-term tamoxifen (1%–2%), or certain inherited genetic syndromes, African race [5]. Cell cycle regulators, p16 and p53, are mostly overexpressed and appear to be associated with the modifications of the sarcomagenesis [9].

Uterine leiomyosarcoma can occure with nonspecific clinical symptoms, therefore it can be confused with a benign tumor such as leiomyoma [10]. The main symptoms are the abnormal uterine bleeding, pelvic pain, and a uterine mass. There is no preoperative test that can differentiate benign from malignant uterine disease [5]. The initial imaging test is based on the USG, an MRI must be performed either. Uterine Leiomyosarcoma is shown as an infiltrating myometrial mass, heterogeneous hypointensity with ill-defined and irregular margins, with central hyperintensity, which is indicative of necrosis [11].

The Anatomopathological diagnosis of uterine leiomyosarcoma depends of the presence of necrosis, mitosis, and cytologic atypia in the proliferating muscle cells [12]. Based on the Stanford criteria, the histologic diagnosis depends on the presence of at least two of the these criterias: diffuse moderate-to-severe atypia, a mitotic count of at least 10 mitotic figures/10 HPF, and tumor cell necrosis [13]. Uterus Leiomyosarcoma is an aggressive tumor and has a severe prognosis. The main prognosis risk factors are: the patient age, race, and the International Federation of Gynecology and Obstetrics stage, the mitotic index and the hormonal receptor expression in the tumor [12].

The early stage treatment of the uterine leiomyosarcoma is based on the permormance of an Hysterectomy [11]. The benefit of the use of an adjuvant systemic treatment and radiotherapy are of not yet proved [8]. Some significant progress has been made recently, Immunotherapy strategies with the use of nivolumab and pembrolizumab, which are both anti–PD-1 antibodies, have been seen to work in advanced leiomyosarcomas.

CONCLUSION

Uterine leiomyosarcoma is a rare uterine malignant tumor that arises from the smooth muscle of the uterine myometrium. ULMS is an aggressive tumor, therefore the prognosis is unfavorable. The diagnosis is confirmed by the final histopathological examination of the tumor. The hysterectomy is the preferred treatment for the ULMS. The post-operative surveillance is recommended. The use of chemotherapy and some new immunotherapy treatments should be considered for the patients with advanced stage of ULMS disease.

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