Conservative management of uterine leiomyosarcoma: report of a failure

G. Cormio, *M.D., Ph.D.*; **V. Loizzi,** *M.D.*; **C. Carriero,** *M.D.*; **D. Scardigno,** *M.D.*; **G. Putignano,** *M.D.*; **L. Selvaggi,** *M.D.*

Department of Obstetrics and Gynaecology and Neonatology, University of Bari (Italy)

Summary

Background: Conservative management of uterine leiomyosarcoma has rarely been reported in the literature. *Case report:* A 26-year-old woman was diagnosed with uterine leiomyosarcoma after resection of a 11 cm uterine mass. Conservative management was proposed, demolitive surgery was not performed and the patient received four courses of chemotherapy. Four months after completion of chemotherapy the patient developed a local recurrence and died of disease 48 months after the primary diagnosis. *Conclusion:* Reporting a failure after conservative management of uterine leiomyosarcoma is important in order to try to evaluate correct indications for fertility-sparing surgery.

Key words: Uterine sarcoma, conservative treatment.

Introduction

One of the most important issues in gynecologic oncology in the last decade is the possibility of performing fertility-sparing surgery in an increasing number of different tumors of the female genital tract [1]. Great emphasis is usually associated with reports of positive results, whereas negative results are not always published but are much more important in the decision-making process.

A few years ago we reported the results of conservative, uterine-sparing management of uterine sarcomas (both endometrial stromal sarcomas and leiomyosarcomas) in young women desiring fertility preservation [1, 2]. Today we report a failure to achieve fertility-sparing surgery in a patient with Stage I leiomyosarcoma of the uterus.

Case Report

A 25-year-old, unmarried white woman, gravida 0, para 0, was admitted in November 2003 to the Department of Gynecologic Oncology, University of Bari, Italy, with a diagnosis of uterine leiomyosarcoma. Her past medical history was uneventful. In October she had undergone a laparotomic myomectomy in another Hospital for a 11 x 9 cm presumed benign leiomyoma of the uterus. On admission transvaginal ultrasound (US), total body computed tomography (CT) scans, pelvic examination, Pap smear and hysteroscopy did not reveal any signs of persistent disease, and serum tumor markers were all within normal values. Pathologic reexamination of the surgical specimens confirmed the diagnosis of a well differentiated uterine leiomyosarcoma, with 10 mitoses x 10 HPF, coagulative necrosis and mild to moderate atypia. The tumor was confined to the center of the resected mass and about one centimeter of uninvolved muscle tissue could be detected all around the sarcoma. Considering the young age of the patient and her desire for future fertility, conservative management was proposed, and after careful informed consent the patient decided to retain her uterus and to receive adjuvant chemotherapy. Four cycles of doxorubicyn (30 mg/sqm) + hyphosphamyde (3 g/sqm) days 1-3 with mesna protection were administered between November 2003 and January 2004 without relevant side-effects or complications.

In March 2004 the patient resumed normal menstrual cycles and decided to try to conceive, but at the end of May 2004 a total-body CT scan demonstrated a 7 x 5 cm local recurrence on the left side of the uterus. Total abdominal hysterectomy, bilateral salpingo-oophorectomy and pelvic lymphadenectomy were performed, and pathologic examination revealed recurrent leiomyosarcoma in tissue near the uterus, with negative nodes and adnexae. External beam radiation (50.4 Gy) was given to the pelvis until August 2004. In Febraury 2005 the patient developed multiple recurrent disease in both lungs, liver and the subcutaneous tissue of the back. Further chemotherapy with paclitaxel, gemcitabine and experimental drugs was administered without success and the patient died of disseminated disease in November 2007, 48 months after the primary diagnosis.

Discussion

Uterine sarcomas are rare malignancies, accounting for less than 3% of all female genital tract tumours [3]. Surgical management of uterine leiomyosarcoma includes total hysterectomy [3, 4] and only a very few case series have reported the possibility of sucessful fertility sparing-surgery in young patients who wish to preserve childbearing [1, 2].

There are no established criteria for selecting young patients with uterine leiomyosarcoma after myomectomy for conservative management. Tumor diameter, completeness of primary resection, pathologic characteristics, such as extent of tumor necrosis or atypia and number of mitoses, the role of adjuvant treatment should be considered when counseling a patient for fertility-sparing surgery.

Revised manuscript accepted for publication April 7, 2008

In the reported case, however, both completeness of resection of the tumour, as demonstrated by the presence of a wide clear margin at myomectomy, and adjuvant treatment had no impact on preventing recurrent disease. Probably the large tumour diameter (11 cm) or the high mitotic count might have been responsible for the unfavourable outcome in our patient.

Positive results after conservative management of uterine sarcomas should be considered with great caution, and we believe the present case should be kept in mind for those clinicians who will have to counsel patients with uterine leiomyosarcoma for fertility-sparing surgery.

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Address reprint requests to:
V. LOIZZI, M.D.
Viale Kennedy 80
70124 Bari (Italy)
e-mail: vloizzi@tiscali.it