CASE REPORT

Symplastic Leiomyoma of Uterus: A Rare Histological Variant

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ABSTRACT

Symplastic leiomyoma is a rare histological variant of leiomyoma. This is a case report of a young nulliparous patient who presented with primary infertility for 2 years and swelling in lower abdomen for 6 months. Intramural fibroid was diagnosed during a pelvic ultrasound. Histopathology of that myomectomy showed symplastic leiomyoma with absent mitotic figures. The patient was managed as for a benign tumor.

Key words: *Symplastic leiomyoma. Infertility. Fibroid uterus. Leiomyoma variants.*

INTRODUCTION

Atypical and bizarre leiomyoma synonymous with symplastic leiomyoma, are rare smooth muscle tumors that contain cells with moderate to severe cytological atypia but cell necrosis is absent and mitotic index is fewer than 10 mf/10 hpf.[1] These are benign lesions even if there is high cellularity, numerous widely distributed bizarre cells and mitosis counts in 2-7 mf / 10 hpf (by the highest count method).[2]

The features like average age of patient at presentation and maximum tumor size are identical to those of common leiomyoma but clinical behavior and prognosis of these rare tumors depends on number of mitotic figures (mf)/ hpf.[3]

Symplastic leiomyoma has been diagnosed in different sites other then uterus like vagina, nasal cavity and in scrotum.[4]

This case report describes the occurrence of symplastic leiomyoma in a young lady with primary infertility.

CASE REPORT

A 25-year-old female, married for 2 years presented with primary infertility mass in lower abdomen for 6 months and pain in lower abdomen for 2 weeks.

It was the first marriage of the couple and both were living together, having coital frequency of 3 per week and both were satisfied.

The patient had regular menstrual cycle of 3-5/28 days with average flow and no associated dysmenorrhoea, dyspareunia, or intermenstrual bleeding. There was no history of discharge per vaginum. Her medical, surgical and family history was not significant.

Her husband was 27 years old, Qasid by profession belonging to low socioeconomic group. His medical or surgical history was non significant with normal semen analysis.

About a year back, the patient had been subjected to ovulation induction course thrice with clomiphene citrate with no positive response.

She felt a mass in lower abdomen 6 months back for which she consulted sonologist who diagnosed fibroid of uterus. She remained asymptomatic but till the last 2 weeks when she developed pain in lower abdomen. There was no associated urinary, bowel complaints or pressure symptoms.

On examination, there was 18 weeks size, uniformly enlarged mobile soft and non-tender uterus with normal adenexa.

Investigation revealed haemoglobin of 10.9 g/dl, O + ve blood group and BSR of 83 mg/dl. Pelvic ultrasound showed an echogenic mass of 9.5 x 10.3 cm in posterior uterine wall. She was transfused 2 units of whole blood and was prepared for myomectomy.

Uterus was found to be 20 weeks size, uniformly enlarged, mobile, soft in consistency in the fundal region and firm in posterior wall. There were multiple soft irregular intramural degenerated fibroids about 6 x 8 cm in the fundal region, 3 x 3 cm in the posterior wall and 2 x 2 cm in the left anterior wall with multiple seedling fibroids in both intramural and subserosal location. There was an ill-defined plane of cleavage with no definite capsule. Myomectomy was done and about 5-6 myomas were removed (Figure 1). Both tubes and ovaries were healthy and normal looking and there was free bilateral dye spill. Plication of round ligaments was done and intraperitoneal drain was placed. Approximate blood loss was one litre. The specimen sent for histopathology reported a benign neoplastic

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Figure 1: Myomectomy specimen. Multiple fibroids, largest measuring 9 x 8 x 5 cm while the smaller ones measure 9 cm in aggregate.

lesion composed of enlarged smooth muscle cells arranged in the form of whorls and bundles having atypical pleomorphic nuclei and multinucleated giant cells with absent mitotic figures suggestive of symplastic variant of leiomyoma.

Postoperatively patient had smooth recovery. Drain was removed on 3rd postoperative day. On the 6th postoperative day stitches were removed and patient discharged in satisfactory condition.

DISCUSSION

A leiomyoma uterus is the commonest benign mesenchymal neoplasia and leiomyosarcoma is the most frequent histologic variant of all sarcomatous forms.[5] Between the two ends of the spectrum there exists a series of borderline smooth muscle tumors of uterus including leiomyoma variants and tumors of uncertain malignant potential. Among them, three common leiomyoma variants are symplastic (atypical, bizarre) cellular and epithelioid type.

Symplastic leiomyoma contains smooth muscle cells with moderate to severe cytological atypia but tumor cell necrosis is absent and mitotic index is fewer than 10 mf/ 10 hpf but in leiomyosarcoma mitotic index is 10 mf/10 or more hpf.

Regarding the course and prognosis of symplastic leiomyoma literature showed the definite benign behavior of symplastic leiomyoma even for those tumors with high cellularity, numerous widely distributed bizarre cells and mitosis counts in 2-7 mf/10 hpf range by the highest count method.[2]

To distinguish between benign and malignant lesions and lesions of uncertain potential, histological criteria as well as different immune histochemical markers e.g. p 16, p 53, MIB 1 (Ki 67 antigen), Calponin h1 and Desmin expression are being used. Over expression of p 16, p 53, MIB 1 (Ki 67 antigen) along with reduced expression of Calponin h1 and Desmin expression have high sensitivity for leiomyosarcoma differentiating them from benign variants of leiomyoma and tumors of uncertain malignant potential.[6-10]

In conclusion, an unfavorable prognosis among the mitotically active neoplasms could be predicted by a constellation of clinicopathologic features, including postmenopausal status, a clinical or intraoperative impression of cancer by the surgeon, extension of tumor beyond the uterine corpus, size greater than 10 cm, marked cytologic atypia, invasive borders, necrosis, and mitotic counts exceeding 20 /10 hpf.[11]

The follow-up and prognosis of this patient was as benign lesion because there were no mitotic figures and hence the immune histochemical analysis was not performed.

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