**ABSTRACT**

Symplastic leiomyoma is an unusual variant of leiomyoma. Malignant transformation accounts for 0.2% of all cases of leiomyoma. Atypical and bizarre leiomyoma synonymous with symplastic leiomyoma are rare smooth muscle tumors that contain cells with moderate to severe cytological atypia, still cell necrosis is absent and mitotic index is fewer than 10/10 HPF. A 42-year P1L1A3 with no comorbidities came with complaints of lower abdominal pain for one year and heavy menstrual bleeding for eight months, LMP- 15/2/19, regular cycles, changes 4-5 pads/day, clots (+) (+), dysmenorrhoea (+). Parity score of P1L1A3, LCB-24 years, not sterilized. On examination - moderately built and nourished, pallor (+). Per abdomen examination - uterus - 22 weeks size, irregular mass, arising from pelvis - no tenderness, lower border not made out. Per speculum examination - cervix and vagina healthy. Per vagina examination - cervix firm, posterior, left fornix: mass felt, non-tender. The patient underwent Abdominal hysterectomy and B/L salpingo-oophorectomy under CSEA. Intraoperative findings - uterus - 20 weeks size, enlarged, a posterior wall subserosal fibroid with degeneration of 6×8 cm. Microscopic appearance - uterus - myometrium shows changes in adenomyosis. Sections of smaller mass reveal structure of leiomyoma. Nuclei are large, hyperchromatic, and show coarse chromatin clumps. Many giant-sized cells with multiple large nuclei were seen. It showed large chromatin clumps. Stroma showed myxoid change. Diagnosis - symplastic leiomyoma, adenomyosis. Symplastic leiomyoma is an unusual variant of leiomyoma. Malignant transformation accounts for 0.2% of all cases of leiomyoma. The regularity of the tumor margins, low mitotic activity, and absence of nuclear atypia or necrosis should be made for the exclusion of malignancy.

**Keywords:** Adenomyosis, Dysmenorrhoea, Menorrhagia, Subserosal fibroid, Symplastic leiomyoma

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**INTRODUCTION**

Symplastic leiomyoma is an unusual variant of leiomyoma. It has less likelihood of malignant transformation. Patient counselling is required to alleviate the anxiety associated with such histologic reports. Atypical and bizarre leiomyoma synonymous with symplastic leiomyoma are rare smooth muscle tumors that contain cells with moderate to severe cytological atypia, still cell necrosis is absent and mitotic index is fewer than 10/10 HPF. It was diagnosed in different sites other than uteri such as the vagina, nasal cavity, and scrotum. Malignant transformation accounts for 0.2% of all cases of leiomyoma.¹

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**CASE REPORT**

A 42-year P1L1A3 came with complaints of lower abdominal pain for one year during menses, on and off, severe, spasmodic, for 1st 3 days. Complaints of heavy menstrual bleeding for eight months, LMP - 15/2/19, regular cycles, changes 4-5 pads/day, clots (+) (+), dysmenorrhoea (+). No history of weight loss, WDPV, urinary, or bowel complaints. Parity score of P1L1A3, LCB-24 years, not sterilized. No significant past medical or surgical history.

On examination - moderately built and nourished, Pallor (+), no edema. Vitals - stable. Breast, thyroid, spine-

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**A rare case of symplastic leiomyoma: case report**

*Sharanya*, Julie Thomas

Department of Obstetrics and Gynecology, St Philomena Hospital, Bengaluru, Karnataka, India

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*Correspondence:*  
Dr. Sharanya,  
E-mail: shmy.7@gmail.com

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*Correspondence:*  
Dr. Sharanya,  
E-mail: shmy.7@gmail.com

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The patient underwent abdominal hysterectomy and B/L salpingo-oophorectomy under CSEA. Intraoperative findings - uterus - 20 weeks size, enlarged, a posterior wall subserosal fibroid with degeneration of 68 cm. The postoperative period was uneventful. Dressing changed on Postoperative day three and wound was healthy. Patient discharged on postoperative day four.

**Gross appearance**

Specimen consists of uterus - 15.5×12.5×7 cm. Cut surface shows thickened endocervical lining. The endometrium is 3-6 mm thick. Myometrium reveals asymmetric hypertrophy and two subserous fibroid measuring 5.3 cm and 9.5 cm in greatest dimension.

Fallopian tube each side measures 4.5 cm in length. Ovary measures 3×2.5×1.3 cm (right side), 3.5×2.7×4.5 cm (left side).

**Microscopic appearance**

**Uterus**

Endometrium is normal. Myometrium shows changes in adenomyosis. Sections of smaller mass reveal the structure of leiomyoma. Nuclei are large, hyperchromatic, and show coarse chromatin clumps. Many giant- sized cells with multiple large nuclei were seen. It showed large chromatin clumps. Stroma showed myxoid change. No mitoses seen. Endocervical lining shows glandular tunnels.

Diagnosis - symplastic leiomyoma.

**DISCUSSION**

Numerous histologic variants of uterine leiomyomas are described. One such variant is the symplastic leiomyoma- a term reserved for uterine leiomyomas with giant cells, nuclear atypia and, minimal mitotic activity (0-4/10 hpfs). The presence of atypia is well recognized. In 1966, Taylor and Norris first introduced the term ‘atypical’ uterine leiomyomas to denote the presence of cytologic atypia in uterine leiomyomas. Subsequently terminologies used for histologically similar lesions with cytologic atypia included ‘bizarre leiomyoma’ by Christopherson et al, and, ‘symplastic leiomyoma’ by burns, suprarenal symplastic leiomyoma of the inferior vena cava, myxoid tumor of the uterus and right atrial myxomas, benign metastatizing leiomyoma have been reported.2–6

The case of the symplastic leiomyoma had previously been reported as a single case. The criteria used in order to consider a smooth muscle tumour as a leiomyosarcoma were: a mitotic rate of two or more mitoses per 10 high power field or presence of necrosis. CD74 and p53 are two of the most studied markers.7

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**Table 1: Criteria for evaluating various categories of smooth muscle neoplasms of the uterine corpus used by.**

| Leiomyma                              | MI <20 mf/10 hpf |
|---------------------------------------|-----------------|
| Leiomyma with increased mitotic index | No coagulative necrosis |
|                                       | No atypia or no more than mild cytologic atypia |
| Leiomyma with increased mitotic index but experience limited | MI >/=20 mf/10 hpf |
|                                       | No coagulative necrosis |
|                                       | No atypia or no more than mild cytologic atypia |
| Atypical leiomyma with low risk of recurrence | MI<10 mf/10 hpf |
|                                       | No coagulative necrosis |
|                                       | Diffuse moderate to severe cytologic atypia (1/46 failed) |
| Leiomymosarcoma                       | Any MI |
|                                       | Any degree of cytologic atypia with coagulative necrosis (29/39 failed) |
| Epithelioid leiomymor                  | MI<5 mf/10 hpf |
|                                       | No coagulative necrosis |
|                                       | No atypia or no more than mild cytologic atypia |
| Epithelioid leiomymosarcoma            | MI >/=5 mf/10 hpf |
|                                       | No coagulative necrosis |
|                                       | None or any degree of cytologic atypia |
The following criteria were evaluated:

- Degree of cytologic atypia (none to mild or moderate to marked)
- Presence or absence of coagulative necrosis
- Mitotic index (MI) (Table 1).

Criteria for evaluating various categories of smooth muscle neoplasms of the uterine corpus used by

The presence of hematopoietic or heterologous elements within an otherwise bland uterine leiomyoma or endometrial stromal tumor may give rise to diagnostic difficulties. The regularity of the tumor margins, low mitotic activity, and absence of nuclear atypia or necrosis should be made for the exclusion of malignancy. In the presence of massive lymphocytic infiltration of a leiomyoma, the clonality of the infiltrate may aid in differentiating it from malignant lymphoma. The pathogenesis and clinical significance of these rare neoplasms remain to be clarified.

CONCLUSION

Symplastic leiomyoma is an unusual variant of leiomyoma. Malignant transformation accounts for 0.2% of all cases of leiomyoma. The regularity of the tumor margins, low mitotic activity and absence of nuclear atypia or necrosis should be made for the exclusion of malignancy.

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