



## Case Note

### 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 25 years old unmarried lady who presented with a history of swelling in lower abdomen and excessive menstruation for 2 to 3 months with symptom of dull aching and stretching pain in lower abdomen. During examination it was envisaged probably a uterine fibroid of 28 weeks size of gravid uterus. Routine investigation along with USG was carried out. Uterine fibroid was detected and Laparotomy-Myomectomy was performed. Histopathological Examination reveals the case of Symplastic leiomyoma and diagnosis was made accordingly. Patient was discharged with advice of regular follow up.*

**Keywords:** *Symplastic leiomyoma, clinico-pathological dilemma.*

The diagnosis of uterine smooth muscle tumours is usually not difficult. Occasionally, benign tumours with an unusual histopathology may cause some dilemma for clinicians who had not experienced such report before<sup>2</sup>. It occurs generally in younger age.

#### Case Report

A 25 years old, unmarried lady attended at OPD with a history of swelling in lower abdomen and excessive menstruation for 2 to 3 months. Patient had dull aching stretching pain in lower abdomen for almost same duration.

**Examination**—She was found to have a large, mobile, firm, non-tender lump with regular margin, extending upto the upper border of umbilicus, probably an uterine fibroid of 28 weeks size of gravid uterus.

**Investigation**- USG of abdomen was done and shows uterine fibroid. Other investigation like

blood count, X-Ray of chest was carried out. All investigation results were found normal except Hb% which was 8.9 gm%

**Surgery**- Laparotomy- myometomy was performed. Four pieces of fibroid were sent for HPE. All were similar looking. Largest one was measuring 11cms x 7 cms x 5 cms. Second largest was measuring 8 cms x 7 cms x 5 cms.

**Histopathology**- Microscopic features: Outer surfaces are irregular gray white. Cut surface show grey-white, trabeculated appearance along with multiple tiny haemorrhagic areas.

Light microscopic findings of mass showed features of mesenchymal tumours composed of spindle smooth muscle cells in haphazardly oriented fascicles cells showed ovoid to plump vesicular nuclei and mild anisonucleiosis. Focal hydropic changes were noted. Focally the tumour cells showed moderate nuclear pleomorphism with lumped chromatin. A few bizarre tumor giant

cells were also present. Mitosis were rare distinctly. Necrosis was not seen and there was no evidence of malignancy.

Diagnosis of symplastic leiomyoma was made. Patient was discharged with advice of regular follow up.

### Discussion

Symplastic (Atypical) leiomyoma is a very rare histopathological variant of leiomyoma. It is usually seen in younger age group, presenting features are same as typical leiomyoma like pain in abdomen, heaviness of abdomen, heavy menstrual bleeding, dysmenorrhea, swelling of lower abdomen, infertility, urinary symptoms<sup>(2)</sup> (generally in cervical fibroid). Diagnosis is confirmed by histopathological examination. Benign tumors with unusual features may cause confusions for clinicians. Light microscopic findings of the mass showed tumor composed of cells exhibiting moderate nuclear atypia which were enlarged, nuclei with prominent chromatin lumping and were distributed in areas. Some tumors cells showed large large nuclear pseudo inclusions, multinucleated, or multilobated tumor giant cells, smudging and few enlarged nucleoli. Mitotic activity was rare. Occasional cells with intracytoplasmic inclusions resembling urandoid – like features were seen<sup>(3)</sup>. There were no typical mitosis or tumor necroses were found.

Ultrastructurally, there are two types of inclusions<sup>(4)</sup>. One of them consisted of an abnormal aggregation of intermediate and actin filaments. Another type of inclusions are composed of dense granular material without an apparent fibrillar structures. The ultrastructure of the inclusions correlates with immunohistochemical and histochemical staining.



The inclusions with apparent fibrillar arrangements are PAS Negative, stained red by trichrome and are at least at the periphery, actin-, desmin-, and h-caldesmon – positive. The dense granular inclusions are at least focally PAS-Positive, stained red by trichrome and are immunohistochemically negative. The intracytoplasmic inclusions are found in (symplastic) atypical leiomyoma of uterus and occasionally in epitheloid leiomyomas and leiomyosarcomas. However, these inclusions have not been found in typical leiomyomas.

Histopathology of that myomectomy of reported case showed symplastic leiomyoma with very rare mitotic activity. The patient was managed as for a benign tumor and also advised for regular follow up.

In conclusion, to our knowledge, only a few cases of symplastic leiomyoma have been reported in the literature so far<sup>(5)</sup>. Although this is a benign lesion, it mimics malignancy sometimes because of its histopathologic features. Apart from histopathologic features, immunohistochemical staining are essential characteristics to distinguish atypical symplastic leiomyomas from typical leiomyoma.

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