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\(^2\). 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 umhilicus, 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- myomectomy 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 symplasmic 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 (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. Micotic activity was rare. Occasional cells with intracytoplasmic inclusions resembling uranoid – like features were seen. There were no typical mitosis or tumornecroses were found. Ultrastructurally, there are two types of inclusions. 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-, desimen-, and h-caldesmon – positive. The dense granular inclusions are at least focally PAS Positive, stained red by trichrome and are immunohistochemically are negative. The intracytoplasmic inclusions are found in (symplasmic) atypical leiomyoma of uterus and occasionally in epitheloid leiomyomas and biomyosarcomas. However, there these inclusions have not been found in typical leiomyomas.

Histopathology of that myomatomy of reported case showed symplasmic 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 symplasmic leiomyoma have been reported in the literature so far. Although this is a benign union, it mimics malignancy sometimes because of its hystopathologic features. Apart from hystopathologic features, immunohistochemical staining are essential characteristics to distinguish atypical symplasmic leiomyomas from typical leiomyoma.

**Acknowledgement**

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**Reference**

2. K Pushpalatha; S Kumar; AK Dinda; JB Sharma – Symplasmicleiomyoma of uterus- a clinic-pathological dilemma.

