International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Sharanya et al. Int J Reprod Contracept Obstet Gynecol. 2020 Aug;9(8):3490-3492
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: http://dx.doi.org/10.18203/2320-1770.ijrcog20203348

Case Report

A rare case of symplastic leiomyoma: case report

Sharanya*, Julie Thomas

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

Received: 05 June 2020
Accepted: 07 July 2020

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

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

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]

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 (+) (+), dysmenorrhea (+). 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-

normal. 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.

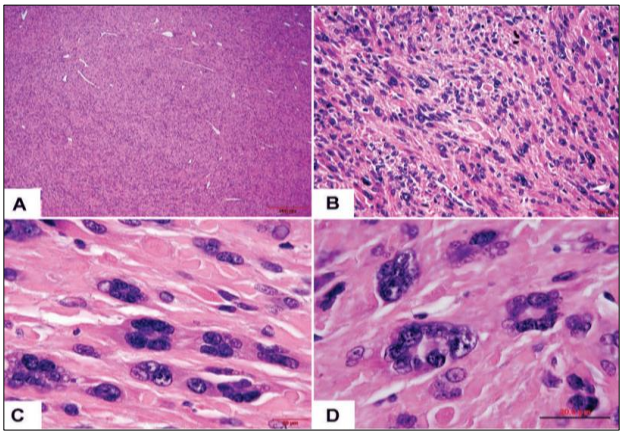

Figure 1: A) Low magnification reveals a hypercellular smooth muscle tumor with diffuse cytologic atypia. B. Intermediate magnification shows large, pleomorphic, and hyperchromatic nuclei. (C and D): High magnification illustrates round and oval nucleus with smooth, distinct nuclear membranes as well as open, clumped chromatin. Many nuclei contain prominent cherry-red nucleoli with perinucleolar halos.

Table 1: Criteria for evaluating various categories of smooth muscle neoplasms of the uterine corpus used by.[8]

Leiomyoma	MI <20 mf/10 hpf
Leiomyoma with increased mitotic index	No coagulative necrosis No atypia or no more than mild cytologic atypia
Leiomyoma 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 leiomyoma with low risk of recurrence	MI<10 mf/10 hpf No coagulative necrosis Diffuse moderate to severe cytologic atypia (1/46 failed)
Leiomyosarcoma	Any MI Any degree of cytologic atypia with coagulative necrosis (29/39 failed)
Epithelioid leiomyom	MI<5 mf/10 hpf No coagulative necrosis No atypia or no more than mild cytologic atypia
Epithelioid leiomyosarcoma	MI>/=5 mf/10 hpf No coagulative necrosis None or any degree of cytologic atypia

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]

The following criteria were evaluated[8]

- 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[8]

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.[9]

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.

ACKNOWLEDGMENTS

Authors would like to thanks Dr Shobha N. Gudi for being a constant support and source of motivation.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Rammesh-Rommani S, Mokni M, Stita W, Traibesi A, Hammisa S, Sriha B, et al. Uterine smooth muscle tumors: retrospective epidemiological and pathological study of 2760 cases. J Gynecol Obstet Biol Reprod (Paris). 2005;34:568-71.
2. Mamalingam M, Goldberg LJ. Atypical pilar leiomyoma: cutaneous counterpart of uterine symplastic leiomyoma?. Am J Dermatopathol. 2001;23:299-303.
3. World Health Organization. Histologic typing of female genital tract tumors. International Histologic Classification of Tumours. 2nd edition. New York, NY: Springer-Verlag; 1994.
4. Kepenekci I, Demirkan A, Sözener U, Çakmak A, Demirer S, Alaçayir İ, et al. Suprarenal symplastic leiomyoma of the inferior venacava. Ann Vas Surg. 2009;23:786.
5. Barlow JF. Myxoid tumor of the uterus and right atrial myxomas. South Dak J Med. 1983;36:9-13.
6. Patton KT, Cheng L, Papavero V, Blum MG, Yeldandi AV, Adley BP, et al. Benign metastasizing leiomyoma: clonality, telomere length and clinicopathologic analysis. Mod Pathol. 2006;19(1):130-40.
7. Bell SW, Kempson RL, Hendrickson MR. Problematic uterine smooth muscle neoplasms: a clinicopathologic study of 213 cases. Am J Surg Pathol. 1994;18:535-58.
8. Kondi-Pafiti A, Grapsa D, Kairi-Vassilatou E, Kontogianni-Katsarou K, Koliopoulos C, Botsis D. Mesenchymal tumors of the uterine corpus with heterologous and hematopoietic components: a study of ten cases and review of the literature. Eur J Gynaecol Oncol. 2006;27:73-7.

Cite this article as: Sharanya, Thomas J. A rare case of symplastic leiomyoma: case report. Int J Reprod Contracept Obstet Gynecol 2020;9:3490-2.