



ORIGINAL RESEARCH PAPER

Pathology

LEIOMYOMA OF UTERINE CERVIX- A RARE CASE REPORT

KEY WORDS: cervix, leiomyoma

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ABSTRACT

Leiomyomas are the most common uterine tumor and usually affect women in their fourth and fifth decades. Variant forms account for approximately 10% of cases. Incidence is 4% in women who are below 30 years of age and very rarely seen below the age of 18 years. They tend to regress after menopause. In contrast to the uterine corpus, cervical leiomyoma are very uncommon; their frequency has been estimated to be 0.6% in hysterectomy specimens. Cervical leiomyoma constitute 1-2% of the total leiomyoma cases. We received partially cut total hysterectomy specimen of a 40 year female who had presented with bleeding per vaginam for 3 months. Grossly and microscopically both the uterus and cervix revealed leiomyoma.

INTRODUCTION

Leiomyomas are benign tumor showing smooth-muscle differentiation and containing a variable amount of collagen-rich extracellular matrix. Leiomyoma is the most common pelvic tumor and found in 20% of women of reproductive age group. Variant forms account for 10% of cases.² Incidence in women below 30 years of age is 4% and very rarely seen below 18 years of age and regress after menopause.³ Cervical Leiomyomas are very uncommon as compared to uterus with estimated frequency of 0.6% in hysterectomy specimens.⁴ Cervical leiomyoma constitute 1-2% of the total leiomyoma cases.⁵ There are three types of cervical leiomyomas; interstitial, supravaginal, polypoidal and supravaginal being commonest type.³ On basis of site of origin, they are classified as anterior, posterior, central and lateral; present as menstrual irregularities, urinary retention and frequency, constipation, dyspareunia and post coital bleeding.⁶ Macroscopically cervical leiomyomas are spheroidal masses with white, light pink or tan, whorled or trabecular incised surfaces, similar to uterine leiomyomas.⁴ Microscopically leiomyomas are composed of spindle cells arranged in intersecting fascicles, with well-defined border. Cells have eosinophilic fibrillary cytoplasm and cigar-shaped nuclei with small nucleoli, infrequent mitoses and rarely nuclear palisading may be seen. Collagen deposition may result in prominent hyalinization and calcification may be seen rarely.²

CASE REPORT

A 40 year old female, known case of hypothyroidism came to Gynaecology out patient Department with complaints of decrease interval between menses, increase duration and flow of menses for 1 year with bleeding per vaginam for 3 months. P/S examination revealed multiparous os, 3x4cm necrosed polyp arising from endocervix was also noted which bled on touch. P/V examination showed uterus central normal in size and mobile, bilateral adnexa clear and non-tender. Hysterectomy was done and specimen sent to pathology department. On gross partially cut total hysterectomy specimen with bilateral fallopian tube and ovaries. Uterus was measuring 5.5x7.5x4.0 cm. On cut endometrial cavity dilated and whorl like area seen measuring 1.5x1.0cm. Cervix was measuring 3.0x4.5x3.0 cm. A cervical growth measuring 4.0x3.0x2.0 cm was seen which on cut surface shows whorl like pattern. Right tube was measuring 4.0 cm in length and diameter varies from 0.8 to 1.5 cm and Right ovary measuring 3.0x1.4x0.6cm. Left tube was measuring 5.8 cm in length diameter varies from 0.6 to 1.3 cm and Left ovary measuring 2.7x1.9x0.8cm. Microscopically, both the uterine and cervical tumors were formed of interlacing bundles of spindle cells arranged in a fasciculated pattern. The nuclei were rod-like and strikingly

uniform in shape and size. The stroma was well vascularized, and in some areas edema was present. Histopathologic diagnosis of uterine and cervical leiomyoma was rendered.



Figure-1: Cut open hysterectomy specimen showing a sessile growth in cervix.



Figure-2: Cut surface showing whorl like pattern in cervical growth.

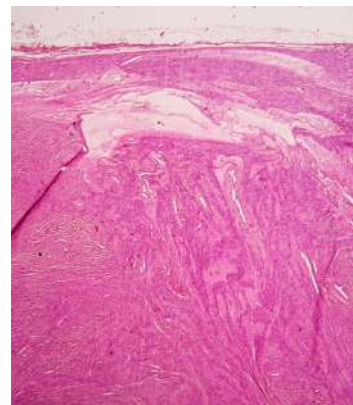


Figure-3: showing interlacing bundles of spindle cells arranged in a fasciculated pattern with well-defined capsule.

DISCUSSION

Leiomyomas are benign tumors showing smooth-muscle differentiation and containing a variable amount of collagen-rich extracellular matrix.⁴ These tumors are commonly seen in uterus and rarely also in the cervix, round ligament, uterosacral ligament, ovary, and inguinal canal. Tiltman examined 661 hysterectomy specimens due to fibroids; and found cervical fibroids in 0.6% and uterine fibroids in 64.6% of the case.⁵ Isolated fibromyoma of cervix without uterine is infrequent.⁶ According to Takeuchi, cervical leiomyoma occurs extracervically and/or intracervically.⁷ A cervical leiomyoma is commonly single, either interstitial or subserous and rarely sub mucosal and polypoidal.⁸ Cervical fibroids may be classified as: anterior, posterior, lateral central and lastly multiple and symptoms depend upon its type and position frequently with retention of urine, constipation, sensation of something coming down or foul smelling discharge vaginum.⁵ Cervical fibroids generally don't affect women's ability to become pregnant and are rare during pregnancy.⁷ Grossly and histopathologically cervical leiomyoma are identical to those of uterus and undergo various types of degenerations like hyaline, myxoid and cystic degenerations.³ Cytogenetically, monoclonal tumors, show karyotypically detectable chromosomal abnormalities in 40-50% cases and specific mutations of the MED12 protein have been detected in 70% of fibroids.¹⁰ Growth of leiomyoma is strongly dependent on estrogen and progesterone and believed that estrogen and progesterone produce mitogenic effects on leiomyoma cells by influencing large number of growth factors, cytokines, apoptotic factors, and other hormones.³ After menopause, with regression of ovarian estrogen secretion, growth of leiomyoma usually ceases.⁹

REFERENCES

1. Gompel C, Silverberg SG. Pathology in Gynaecology and Obstetrics. 2nd ed. Philadelphia (PA): Lippincott; 1977: 184-190.
2. Robert J. Kurman, Maria Luisa Carcangiu, C Simon Herrington, Robert H. Young, (Eds): WHO Classification of tumors of female Reproductive Organs. IARC: Lyon 2014 NEW: 135-136.
3. Kamra H T, Dantkale S S, Birla K, Sakinlawar P W, et al. Myxoid leiomyoma of cervix. Journal of Clinical and Diagnostic Research. 2013;7(12):2956-2957
4. Robert J. Kurman, Maria Luisa Carcangiu, C Simon Herrington, Robert H. Young, (Eds): WHO Classification of tumors of female Reproductive Organs. IARC: Lyon 2014 NEW: 198-199.
5. Tiltman A J. Leiomyomas of the uterine cervix: A study of frequency. Int J Gynecol Pathol. 1998;17(3):231-234.
6. Mendiratta S. et al. Cervical fibroid: an uncommon presentation. Int J Reprod Contracept Obstet Gynecol. 2017;6(9):4161-4163.
7. Takeuchi H, Kitade M, Kikuchi I, [et al.]. A new enucleation method for cervical myoma via laparoscopy. J Minim Invasive Gynecol. 2006;13:334-336.
8. Samal SK. et al. An unusual presentation of central cervical fibroid: a case report. Int J Res Med Sci. 2014 Aug;2(3):1226-1228.
9. Garg R. Two Uncommon Presentation of Cervical Fibroids. People's Journal of Scientific Research. July 2012;5(2):36-38.
10. Makinen N, Mehine M, Tolvanen J, Kaasinen E, Li Y, Lehtonen HJ, Gentile M, Yan J et al. Med 12, the mediator complex, subunit 12 gene is mutated at high frequency in uterine leiomyomas. Science. 2011;334:252-5.