ORIGINAL RESEARCH PAPER

Pathology

OVARIAN LEIOMYOMA – A RARE CASE IN HISTOLOGY

KEY WORDS: Ovary, Leiomyoma

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ABSTRACT

INTRODUCTION: Primary ovarian leiomyomas are mostly unilateral, small and asymptomatic tumors presenting between 20 to 65 years of age among which, around 85% are premenopausal. CASE HISTORY: A 50 years female is admitted to the obstetrics and gynecology department with a complaint of postmenopausal bleeding for 7-8 years. The patient is on progesterone therapy for 15 days. **DISCUSSION:** The definitive diagnosis of these lesions is difficult prior to surgical removal. Because there are no pathognomonic symptoms or characteristic imaging findings. The correct diagnosis of ovarian leiomyoma requires identification of the smooth muscle nature of the tumor. **CONCLUSION:** This rare tumor of the ovary should be considered in the differential diagnosis of solid ovarian masses. Immunohistochemical analysis is recommended for definitive diagnosis.

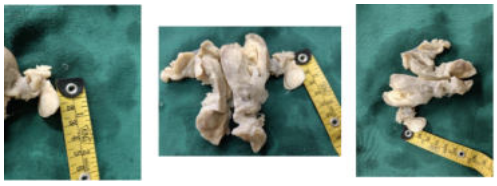
INTRODUCTION:

Leiomyoma is one of the rarest solid tumors of the ovary; it accounts for 0.5–1% of all benign ovarian tumors.[1] Approximately 70 cases have been reported in the literature. Ovarian leiomyomas are particularly unilateral and small and most commonly occur in women aged 20–65. The majority of these tumors are discovered incidentally, with about 80% of the cases occurring in premenopausal women.[2] Patients are usually asymptomatic, and the tumor is most commonly diagnosed unintentionally by histological examination of ovarian tissue after ovariectomy for solid ovarian mass. Ovarian leiomyomas probably arise from smooth muscle cells in the ovarian hilar blood vessels, but other possible origins are cells in the ovarian ligament, smooth muscle cells or multipotential cells in the ovarian stroma, undifferentiated germ cells, and cortical smooth muscle metaplasia. [3] In this study, we report a case of a primary ovarian leiomyoma in a 50-year-old woman.

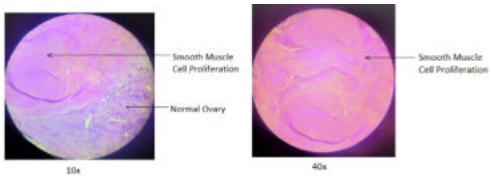
CASE HISTORY:

A 50 years old woman is admitted to the obstetrics and gynecology department with complaints of post-menopausal bleeding for 7-8 years. Her USG examination is normal. No mass is detected in the ovary. A hysterectomised specimen of the uterus with bilateral adnexa with separate mass is sent for histopathological examination in 10 % formalin.

On gross examination: Uterus is 9x6x3.5cm in size. The left ovary is 2x1x1cm in size and attached to the fallopian tube. The outer surface of the ovary is smooth, shiny, and capsulated. On the cut section, it shows whitish mass of size 1.5x1cm and solid areas.



On microscopic examination: Studied section shows smooth muscle cell proliferation along with ovarian stroma arranged in a storiform pattern suggestive of leiomyoma.



DISCUSSION:

Leiomyoma of the ovary is a very rare benign tumor, usually detected incidentally during a routine pelvic examination, during surgery, or after surgical removal of the ovary. Most leiomyomas of the ovary are small, usually less than 3 cm in diameter. Most of the patients are asymptomatic or, as in our case, have only complaints of post-menopausal bleeding. In contrast, giant ovarian leiomyomas can be presented with ascites, hydrothorax, hydronephrosis or slightly elevated levels of tumor marker, CA 125.[1,4,5] MRI is often a useful adjunct to ultrasonography for the purpose of diagnosing indistinct pelvic masses.[9]

Case reports have demonstrated a predominance of unilateral leiomyoma, but bilateral ovarian leiomyomas have been reported in pediatric and young adult patients. Bilateral cases have not been reported in patients over the age of 35.[7] In line with the literature, our patient was 50 years old and had unilateral ovarian leiomyoma. Ovarian leiomyomas often coexist with uterine leiomyoma, but sometimes they can be of a secondary origin. That is, subserosal pedunculated uterine leiomyoma can lose its attachment to the uterus and connect to the ovary.

The literature has reported that many patients with ovarian leiomyomas are nulligravidas. This suggests that oestrogen may play a role in the development of ovarian leiomyomas. Another possible mechanism suggests that tumors may arise in developmentally abnormal ovaries.[8]In our case, normal ovarian tissue was present histologically. This suggests that the tumor can originate from the smooth muscle cells in the walls of blood vessels, in the cortical stroma, in the hilus, in the corpus luteum, or the ovarian ligament. Ki-67 is an index protein that affects growth control in leiomyoma monoclonal cells and is helpful in the evaluation of characteristics of uterine leiomyoma neoplastic processes.[10]

CONCLUSION:

In histopathology, separating this benign lesion from other solid tumors of the ovary, we can suggest that histopathology is an important tool in the differential diagnosis of solid lesions, presenting with postmenopausal bleeding.

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