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## Case Report

## PRIMARY LEIOMYOMA OF THE OVARY: A CASE REPORT

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## ABSTRACT

Ovarian leiomyoma is a rare benign tumour that accounts for 0.5% to 1% of all benign ovarian tumours, while its uterine localization is very common. A 62 years old woman was admitted for pelvic examination. Transvaginal ultrasonography and magnetic resonance imaging (MRI) revealed a pelvic mass (7 cmx6cm). At laparotomy, total hysterectomy and bilateral salpingo-oophrectomy were performed and histologic examination revealed a leiomyoma arising primarily in ovary.

**Keywords:** Ultrasonography, Magnetic resonance imaging.

## INTRODUCTION

Leiomyoma arising primarily from the ovary is an extremely rare tumour, however, many cases pass unrecorded, perhaps because ovarian leiomyomas are usually so small in size that they missed routine examination. It is difficult to do preoperative diagnosis of ovarian leiomyomas with pelvic examination by ultrasonography. Because of the very low prevalence of the tumour, its imaging features have seldom been described. Here in we present a case report with its MRI features.

## CASE REPORT

A 62-year-old woman was found to have an abdominal mass at medical checkup. Pelvic examination revealed a firm mass 7cmx6cm behind the uterus. On pelvic and transvaginal ultrasonography, the mass was homogeneously isoechoic compared with the adjacent myometrium. Her past medical history was not contributory. Other physical examination was normal and laboratory data were within normal limits. Pelvic MRI showed an 7cmx6cm peritoneal solid tumour on the left side of the uterus. The mass was well circumscribed and sharply demarcated from the uterus. A total hysterectomy and bilateral salpingo-oophrectomy were performed. At surgery, the tumour measuring 8cm in diameter was found in left ovary. There was no accompanying uterine mass. On gross appearance, the mass was solid and firm. The cut surface of the ovary was gray white in colour and showed a whorled pattern. Microscopy showed that the mass consisted mostly of smooth muscle cells with no mitotic figures (Fig.1). Histologic examination revealed a typical leiomyoma of the ovary. The patient's post operative course was uneventful.

## DISCUSSION

Ovarian leiomyoma is a rare benign tumour that accounts for 0.5 to 1% of all benign ovarian tumors<sup>1</sup> most of these tumors are unilateral, measure only few millimeters in diameter and generally occur in premenopausal women<sup>2</sup>. However, in the pediatric/young adult group they are more commonly bilateral and no bilateral cases have been described in patients over the age of 35<sup>3</sup>.

They probably arise from smooth muscle cells in the ovarian hilar blood vessels but other possible origins include cells in the ovarian ligament, smooth muscle cells or multipotential cells in the ovarian stroma, undifferentiated germ cells, or cortical smooth muscle metaplasia<sup>4-6</sup>. Additionally, smooth muscle metaplasia of endometriotic stroma, smooth muscle present in mature cystic teratomas, and smooth muscle in the walls of mucinous cystic tumor may explain their occurrence in the ovary in some cases<sup>7-11</sup>.

Most ovarian leiomyomas are asymptomatic and are found either during routine physical examination, incidentally at surgery, or at autopsy<sup>1-5,10</sup>. In symptomatic cases, a variety of clinical presentations have been described, such as: abdominal pain, a palpable mass, hydronephrosis, elevated CA-125, hydrothorax and ascites<sup>10,14-16</sup>.

The features of ovarian leiomyoma are very characteristic, but due to its rarity several other tumors were included in the differential diagnosis. The main differential diagnostic considerations for ovarian leiomyoma include sex-cord stromal tumors, such as fibroma/thecoma, particularly if there is a large amount of stromal fibrosis or if the tumors are small. Finally, leiomyosarcoma obviously has to be excluded in this setting<sup>1,17,18</sup>.

## CONCLUSION

Ovarian leiomyoma is a very rare tumor of unresolved origin. Despite its rarity, ovarian leiomyoma should be considered in the differential diagnosis of ovarian spindle cell tumors.

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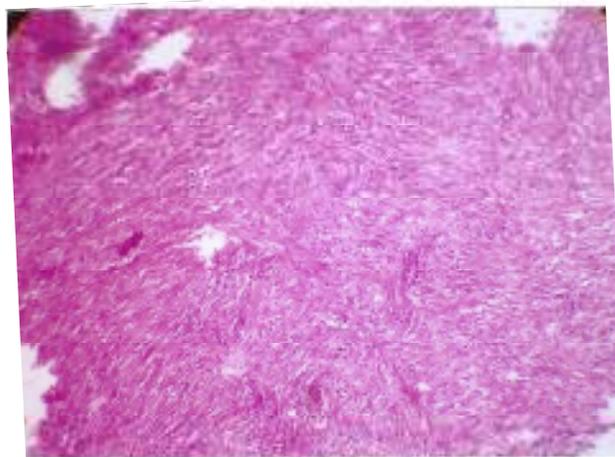


Figure 1: Microscopically, the tumor was composed of whorled interlacing fascicles of typical smooth muscle cells (40xH&E).

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