ZKTB

OLGU SUNUMU

Overin Dev Primer Leiomyomu: A Case Report

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ÖZET:

Overin primer leiomyomları nadir olarak görülen, sıklıkla perimenopozal kadınları etkileyen jinekolojik tümörlerdir. Ayırıcı tanıda; over fibro-tekomu, over fibromu, uterin leiomyomu ve uterin leiomyosarkomu akılda tutulmalıdır. MRI ve histopatolojik değerlendirme ayırıcı tanı için yardımcıdır. Bu çalışmada; klinikopatolojik ve MRI bulguları ile tanımlanan overin primer dev leiomyomu sunulmuştur.

Anahtar kelimeler: *dev ovarian leiomyom, klinikopatoloji, MRI*

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ABSTRACT :

Primary ovarian leiomyomas are seen rarely gynecological tumors, which usually affect perimenopausal women. In differential diagnosis, ovarian fibroma, fibro-thecoma, uterine leiomyoma and leiomyosarcoma should be kept in mind. MRI and histopathologic evaluation is helpful to differential diagnosis. In the present study, we report a case of giant primary ovarian leiomyoma described by clinicopathologic characteristics and MRI findings.

Anahtar kelimeler: *giant ovarian leiomyoma, clinicopathology, MRI*

INTRODUCTION

Primary ovarian leiomyoma is a benign tumor seen rarely that accounts for 0.5 to 1 % of all benign ovarian tumors (1). The tumor is usually small and rarely induces serious symptoms. We report a rare case of a huge ovarian leiomyoma described by clinicopatologic characteristics with magnetic resonance imaging (MRI) findings.

CASE

A 53-years-old postmenopausal woman, gravida 6, para 2, abortus 2 was admitted to our hospital with pelvic pain and abdominal distention. She had pelvic pain for two years but her pain increased in the last three weeks. On physical examination, a solid, irregular and elastic hard mass was detected on the adnexial region which was reaching 2 cm below the umbilicus. Transabdominal ultrasonographic evaluation revealed a huge mass, containing cystic and solid areas on left side of pelvis which is enlarged toward the midline of abdomen and it could not be clearly separated from the uterus. The sonographic appearance of the lesion aroused a suspicion of degenerated leiomyoma. In addition, endometrial thickness was measured as 6 mm in transvaginal ultrasound examination. On vaginal examination, uterine cervix was not visible and there was a palpable mass in left adnexial region. Tumor markers were within normal range. (CA125: 10.1 U/ml, CA19–9: 18.3 U/ml, CA15.3: 21.2 U/ml). Magnetic resonance imaging (MRI) was performed to understand the relationship between the huge pelvic mass and neighboring structures. MRI showed that the mass was extending from the pelvis to the upper abdomen and inferiorly was compressing the neighbor organs and also there was a concomitant uterine leiomyoma. Sagittal and axial T1 weighted images revealed sharply demarcated, low signal intensity with a maximal diameter of 25cm. T2 weighted images revealed high signal intensity mixed with low signal intensity. A laparotomy was planned after endometrial sampling and no malign endometrial pathology was encountered in pathologic evaluation of curettage material. A laparotomy was un-

dertaken and the mass measuring 27x18x19 cm was found as originated from left ovary adjacent to the uterus. There was no adhesion or infiltration of surrounding structures. The uterus and right ovary were seen atrophic. The mass originating from the left ovary was removed and sent for frozen section analysis. Frozen section revealed a benign result. Total abdominal hysterectomy and unilateral salpingo-oophorectomy were performed. There were not any operative or postoperative complications. In microscopic examination, the mass comprising interacting bundles of smooth muscle cells and no malign features were detected in endometrial sampling. Focal areas of hyaline and myxoid degeneration were apparent within the some part of the mass. The final histological diagnosis was left primary ovarian leiomyoma.

DISCUSSION

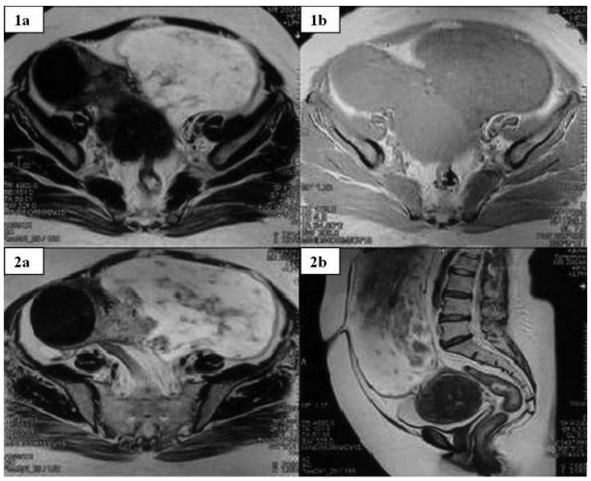
Primary ovarian leiomyoma is one of the rarest solid benign tumors of ovary that accounts for 0.5–1% of all benign ovarian neoplasms (1). However the precise incidence is unknown, Sangalli first described this tumor in 1862 (cited by Seinera) (2), and 60 cases have been reported. The ages of patients range from 25 to 65. It is most often discovered in perimenopausal period (1). Although most ovarian leiomyomas small (measure < 3 cm) in diameter so that they are asymptomatic and in about 85% of cases the tumor is detected incidentally either during physical examinations, at surgery, or at autopsy. Symptomatic cases are presented with a palpable abdominal mass, ascites or hydronephrosis. It becomes rarely large enough to present as a pelvic mass with or without its related symptoms. There have been few reports of large ovarian leiomyoma (3,4). The largest reported tumor measured 36cmx37cmx11cm (5). In our case, the patient was in postmenopausal period and the size of the tumor was relatively large 27x18x19cm and was palpable through the abdominal wall.

The origin of the tumor is unknown and several theories proposed. It is thought that tumor arise from smooth muscles in hilus or blood vessel walls, foci of smooth muscle metaplasia of ovarian stroma, smooth muscle fibers near attachments to ovarian ligaments, theca externa and cortical stroma, stroma of endometriosis which apparently contains occasional smooth muscle cells, smooth muscle present in mature cystic teratomas, and smooth muscle in the walls of mucinous cystic tumor (1,6).Ovarian leiomyomas in adults are commonly unilateral, only three cases of bilateral primary ovarian leiomyoma have been reported (3,7,8). However, in the pediatric/young adult group they are more commonly bilateral and no bilateral cases have been described over the age of 35(7).

In our case the mass was unilateral. It is important to distinguish primary ovarian leiomyoma from sex- cord stromal tumors as fibroma and thecoma, parasitic uterine leiomyoma (pedunculated subserous leiomyoma which become attach to the ovary), leıomyomatosis peritonealis disseminata (it is multiple and situated at the surface of the ovary) (9), from intravascular extensions, which may be present loosely attached in the lumina of the ovarian hilar vessels (intravenous leiomyomatosis) and leiomyosarcoma (10). Ultrasound and CT scans show a nonspecific solid mass without demonstrating origin of mass and can't make differential diagnosis (4). MRI can be obtained in multiple planes, and demonstrate landmarks of mass completely, furthermore it has excellent sensitivity. Thus, MRI may become the primary diagnostic modality for preoperative diagnosis of ovarian leiomyoma. Only a few cases of ovarian leiomyoma evaluated by MRI have been described (5,11). It is difficult to differentiate ovarian leiomyoma from uterine leiomyoma, which is pedunculated, and from fibroma or fibrothecoma which show low signal intensity similar to leiomyoma. In our case , there are intramural and cervical myomas and both myomas show lower signal intensity than the myometrium on T2 weighed image **(Figure 1a)** and show higher signal intensity on T1 weighed axial image **(Figure 1b)**.With uterine leiomyoma, some ovarian leiomyomas include areas of high signal intensity on T2 weighted imaging (5), corresponding to a combination of oedema-

tous swelling of myoma cells due to ischemia, cystic changes and/or myxoid degeneration.

Figure: T2 weighed axial (1a) image show the intramural and cervical leiomyomas in lower signal intensity than the myometrium and T1 weighed axial (1b) image show higher signal intensity. T2 weighted axial (2a) and sagittal (2b) images show a huge mass showing band-like internal low signal areas. The increased T2 hyperintensity is due to associated myxoid degeneration.



However, this finding has been observed in ovarian fibroma and fibrothecoma (5,11) so that it did not help us for differentiation. In the present case, the tumor appeared as well-circumscribed band-like internal low signal areas. Areas of high signal intensity on T2 weighted imaging corresponded to myxoid degeneration of leiomyoma **(Figure 2)**. For the differential diagnosis, Tamada et al. used dynamic contrast-enhanced imaging. This technique revealed early enhancement of ovarian leiomyoma which is not seen in ovarian fibroma and fibro-thecoma (11). The features of early enhancement suggest a hypervascular nature which is unusual in ovarian fibroma and fibrothecoma.

The histological findings are identical to leiomyomas found in other locations. Sections from various portions of the tumors were prepared and stained with hematoxylin-eosin. Microscopically, the tumor was consisting of a whorled interlacing pattern with typical smooth muscle cells with bland nuclei and there were dense fibrosis and hyalinization of stroma. Nuclear atypia, pleomorphism, necrosis and mitosis were not detected. Differential diagnosis is possible by immunohistochemical studies. The tumor cells of leiomyoma and fibroma were diffusely and highly immunoreactive for alfa-smooth muscle actin (SMA); where thecoma were not. Fibroma was distinguished by testing immunoreactivity using anti-alfa-inhibin and anti-SMA antibodies which a leiomyoma will test negative. Leiomyoma was distinguished from leimyosarcomas by the absence of four or more mitoses per 10 high-power fields for the malignant counterpart.

In conclusion, although ovarian leiomyoma is rare, it should be kept in mind that for differential diagnosis of ovarian leiomyoma from ovarian fibroma, fibro-thecoma, uterine leiomyoma and leiomyosarcoma, MRI and histopathologic evaluation is necessary. Despite of the fact that MRI can not make differential diagnosis between the subserous uterine leiomyoma and ovarian leiomyoma, it accurately diagnoses the leiomyoma. It is seen that MRI has a potential for avoiding us from unnecessary procedures (salpingo-oophorectomy or debulking) performed in patients who are misdiagnosed over tumor and especially who want to preserve her fertility. In frozen process, it can also help histopathologist by preventing misdiagnosis. In addition, being able to make accurate decision whether mass is benign or malign gives a chance for using transverse incision inspite of midline incision and provides a better result in cosmetic aspect.

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