Evaluation of Parasitic Leiomyomas in the Differential Diagnosis of Stromal Tumors: A Case Report

STROMAL TÜMÖRLERİN AYIRICI TANISINDA PARAZİTİK LEİOMYOMLARIN DEĞERLENDİRİLMESİ: OLGU SUNUMU

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Summary

Parasitic uterine leiomyoma occurs rarely and may present with a wide variety of symptoms. This report describes a case of leiomyoma which might be either a parasitic uterine myoma which was adherent to the parietal peritoneum or really a stromal tumor in origin.

Key Words: Parasitic leiomyoma, Stromal tumor, Differential diagnosis

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Özet

Parazitik leiomyoma, nadir görülen ve çok farklı semptomlarla karşımıza çıkabilen bir durumdur. Bu yazıda, gerçek bir stromal tümöre örnek olabilecek veya uterus kökenli olup parietal peritona tutunmuş olması muhtemel bir leiomyom vakası sunulmuştur.

Anahtar Kelimeler: Parazitik leiomyom, Stromal tümör, Ayırıcı tanı

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Since uterine leiomyoma is the most common gynecologic tumor, it is important to be familiar with the variety of different presentations. When blood supply is derived from neighboring organs, the term parasitic myoma is used (1). Parasitic uterine leiomyoma occurs rarely and may present with a wide variety of symptoms. These myomas may be attached to the omentum or intestine or may grow in a lateral direction into the broad ligament (1).

Mesenchymal tumors, traditionally regarded as smooth muscle tumors, placed in any region where smooth muscle is present, have demonstrated different cellular differentiations based on immunohistochemical and ultrastructural features (2). Therefore the terms leiomyoma and leiomyosarcoma have been replaced by a more encompassing novel term, stromal tumor (ST) (2). STs derive from the interstitial cells of Cajal, in addition to variable expression of smooth muscle and neural markers (3,4). Stromal tumors should be thought in the differential diagnosis of parasitic leiomyomas.

This report describes a case of leiomyoma which might be either a parasitic uterine myoma which was adherent to the parietal peritoneum or really a stromal tumor in origin originating from vascular smooth muscle.

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Case Report

A forty-six year old woman (gravidity 5, para 3, abortion 2) admitted with a complaint of abnormal uterine bleeding to Ankara University Faculty of Medicine, Gynecology Department. With a preoperative diagnosis of atypical endometrial hyperplasia she underwent total abdominal hysterectomy and bilateral salphingooopherectomy. At laparotomy; a 9x9x4 cm sized, good shaped, nodular mass originating from the parietal peritonea under the umbilical region was found incidentally and excised totally. Cross-section of the mass revealed pink-grayish color, homogenous appearance and solid pattern (Figure 1). Uterus and both ovaries were normal in observation. Postoperative pathology of the mass was reported as parasitic leiomyoma. Microscopically; it was evaluated as leiomyoma showing regular border. It was composed of spindle like nucleated mesenchymal cells which cross-sected each other. No atypia, mitotic activity or necrosis were found. The postoperative course of the patient was uneventful and she was discharged 5 days after surgery.

Discussion

A subserous pedunculated myoma may gradually outgrow its blood supply. In an attempt to keep the myoma tissue from undergoing complete ischemic necrosis, the omentum will become adherent to the peritoneal surface of

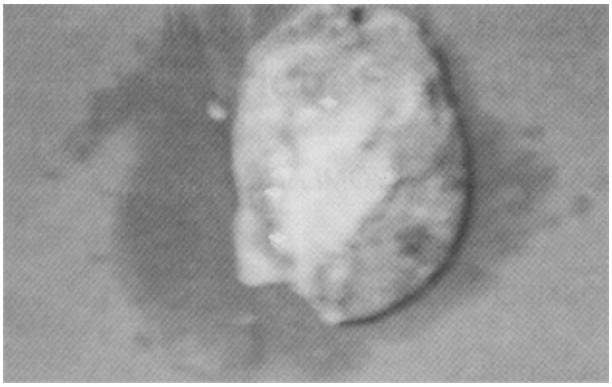

Figure 1. Gross appearance of the parasitic leiomyoma.

Table 1. Evaluation parameters of stromal tumors

1. Size (< 10 cm, >10 cm)
2. Cellularity (low, high)
3. Mitoses (0-2 per 50 high power fields, >2 per 50 high power fields)
4. Nuclear atypia (absent, present)
5. Cell type (epitheloid, spindled or mixed)
6. Necrosis (absent, present)

a pedunculated subserous myoma and provide whatever blood supply is needed. Eventually the pedicle may disappear or twist, and the myoma will become completely free from the uterus, wander in the upper abdomen and be called as a parasitic myoma (5).

On the other hand, stromal tumors (ST) represent an extremely rare group of tumors, which are mostly of smooth muscle origin like leiomyomas, leiomyosarcomas and leiomyoblastomas (6). STs reveal a broad morphologic spectrum and variable cytologic atypia (6). Stromal tumors can occur in the soft tissues of the abdomen (7). No specific symptoms or signs have been identified and this kind of tumor is often accidentally found (8).

The analysis of Reith et al revealed that STs occurred in patients with a median age of 58 years and their size ranged from 2.1 to 32 cm (7). In the present case, the size of the tumor was 9x9x4 cm. In Reith's study; tumors were evaluated with respect to several parameters just like the present case (Table 1).

In univariate analysis of Reith study, cellularity, mitotic activity (> 2 per 50 high-power fields), and necrosis were associated with statistically significant increases in the risk for adverse outcome. No association was noted between histologic pattern and outcome. Although only 39% of tumors behaved in a malignant fashion, this figure was accepted as representing a conservative estimate because long term follow-up (5 years) was available for only a limited number of patients.

D'Amato et al found a poor correlation between site of tumor and clinical manifestations and positive correlation between tumor diameter and presence of symptoms and signs (8). In this case, retrospective questioning of the symptoms of patient revealed her sensation of a mobile mass in the umbilical region. The treatment is total resection of the tumor.

In conclusion, parasitic leiomyomas show a wide spectrum of symptoms and appearances and it is sometimes difficult to decide whether they are really parasitic or a sample of stromal tumors. Further extended studies will reveal the diagnostic criteria and elucidate the prognostic significance of this discrimination.

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