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Postmenopausal Adnexal Mass Mimicking Pelvic Schwannoma: An Unexpected Diagnosis of Ovarian Hemangioma

Yucel Nurettin Ceylan[1], Eralp Ceviker[2], Mesut Polat[3], Ates Karateke[4], Emel Kurtoglu Ozdes[5*]

[1]Department of Obstetrics and Gynecology, Bir Nefes Private Hospital, Kırklareli, Türkiye
[2]Department of Obstetrics and Gynecology, Edirne Provincial Health Directorate Sultan 1. Murat State Hospital, Edirne, Türkiye
[3]Department of Obstetrics and Gynecology, Medipol Acıbadem District Hospital, Istanbul, Türkiye
[4]Private Gynecologic Oncology and Urogynecology Clinic, Istanbul, Türkiye
[5]Department of Obstetrics and Gynecology, Faculty of Medicine, Kırklareli University, Kırklareli, Türkiye
Email: *ekurtoglu0022@gmail.com

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Abstract

Postmenopausal adnexal masses, especially growing masses, warrant careful evaluation due to their increased risk of malignancy. However, rare benign lesions such as ovarian hemangioma may mimic malignant or uncommon pelvic tumors radiologically. Thus, magnetic resonance imaging helps characterize the adnexal mass, while histopathology confirms the diagnosis. We report the case of a 55-year-old postmenopausal woman with abdominal pain who presented with a left adnexal mass and was subsequently diagnosed with ovarian hemangioma, which is a rare genital tract pathology.

Keywords

Ovarian Hemangioma, Pelvic Schwannoma, Adnexal Mass, Postmenopause, Case Report

1. Introduction

Ovarian hemangiomas are rare benign vascular malformations that originate in the female genital tract. In fact, there are fewer than 60 well-documented cases of ovarian hemangiomas in the literature [1]. These neoplasms occur in individuals of all ages, ranging from childhood through to the postmenopausal period [2]. The vascular proliferation is typically histologically classified as a cavernous, capillary, or mixed type, with cavernous being the most common [3]. Yet, occasionally, a variable amount of ovarian tissue stroma can be present, indicating inflam-

mation, hemorrhage, hemosiderin deposits, or calcification. While ovarian hemangiomas are believed to represent non-functional stromal luteinization leading to vascular proliferation and bleeding in the abdominal cavity, the exact pathogenesis is currently unknown [4] [5]. These hemangiomas are usually detected incidentally during surgery or autopsy, and they are generally small in size. In very rare cases, however, they may grow to larger sizes, be located bilaterally, and become symptomatic. The clinical manifestations of ovarian hemangiomas may include pain, which is the most common symptom, ascites, acute abdomen and abdominal masses, and signs of both hyperandrogenism and hyperestrogenism [6] [7]. Additionally, findings such as elevated CA-125 levels may mimic the signs of ovarian neoplasms [8].

In this report, we present a rare case of unilateral ovarian hemangioma radiologically interpreted as pelvic schwannoma in a postmenopausal patient. Written informed consent was obtained from the patient.

2. Case Presentation

2.1. Case History

A 55-year-old postmenopausal woman presented with intermittent lower abdominal pain. Upon further inquiry, she reported no other complaints and no significant medical or surgical history.

2.2. General Physical Examination

The patient was a well-developed woman with intact consciousness. Her pulse rate was a normal 80 beats/min, and her blood pressure was 110/70mmHg. The rest of her hemodynamic parameters were within the normal range.

2.3. Systemic Examination

Abdominal examination revealed no pain, guarding, or rebound in any region. She only complained of intermittent lower abdominal pain. At pelvic examination, the vulva, vagina, and cervix appeared normal. Uterus was consistent with postmenopausal size and regular shape in antevert position. There was no abnormality with right adnexa, whereas a solid and regular-shaped and painless mass was palpated in the left adnexa. No nodularity was found in the Douglas pouch, and the cervix was mobile, with no pain.

2.4. Methods and Differential Diagnosis

With the above clinical history and physical examination, we kept a differential diagnosis of ovarian mass, including ovarian fibroma/fibrothecoma, schwannoma, chocolate cyst, degenerated uterine or intraligamentous myoma, angiosarcoma and lymphangioma.

2.5. Imaging

Pelvic ultrasonography identified a solid lesion in the left adnexal region. Initial

pelvic MRI demonstrated a 32 × 22 mm well-circumscribed solid mass with no pathologic contrast in the left adnexal region.

2.6. Investigations and Final Decision

Initial tests revealed a normal complete blood cell count. Renal function tests and liver function tests were normal. Serum levels of CA-125 and CA-19-9 were in normal range and annual follow-up was recommended.

2.7. Outcomes and Follow-Up

The patient did not come to control visit and two years later, she presented with the repeated complaints of intermitant lower abdominal pain. Physical and pelvic examination revealed normal findings except for palpable and painless left adnexal solid mass.

Imaging:

MRI demonstrated interval enlargement to 54 × 44 mm. The lesion appeared hypointense on T1-weighted imaging and hyperintense on T2-weighted and fat-suppressed sequences, with marked heterogeneous enhancement after contrast administration. Radiologic differential diagnosis primarily favored pelvic schwannoma (Figure 1, Figure 2).

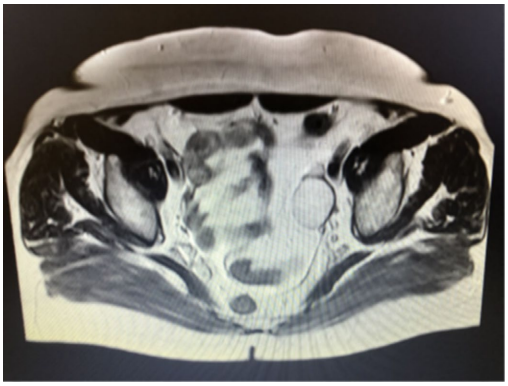

Figure 1. Axial T2-weighted magnetic resonance imaging of the left ovarian hemangioma.

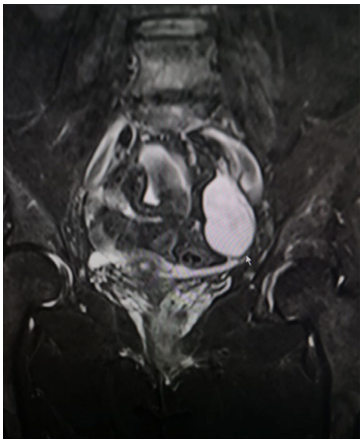

Figure 2. Coronal T2-weighted magnetic resonance imaging of the left ovarian hemangioma.

Despite normal tumor markers (CA-125: 12.8 U/mL), increasing lesion size prompted surgical intervention.

2.8. Management/Treatment

Diagnostic laparoscopy revealed a well-circumscribed, benign-appearing solid mass arising from the left ovary. Bilateral salpingo-oophorectomy was performed. Frozen section suggested benign pathology. Final routine histopathological examination confirmed ovarian hemangioma. Patient recovery was uncomplicated and no recurrence or residual symptoms were noted at follow-up.

3. Discussion

Ovarian hemangioma was first described by Payne *et al.* in 1869 in a female patient aged 25 who had bilateral ovarian hemangioma and abdominopelvic hemangiomatosis. Such neoplasms are extremely rare adnexal masses. The cases reported in the literature span a patient age range of 4 months to 81 years, and ovarian hemangiomas are frequently identified as incidental findings following surgery [9]. Given that adnexal masses, particularly growing ones, are important due to their increased risk of malignancy during the postmenopausal period, close follow-up is essential and rare pathologies such as ovarian hemangiomas should also be kept in mind, especially if the mass is richly vascularized and increasing in size. In the case reported here, the ovarian mass growing in size over a two-year period, accompanied by suspicion of pelvic schwannoma, in a postmenopausal woman, led to a diagnosis of ovarian hemangioma.

While the etiology of ovarian hemangiomas remains unknown, these lesions are considered to be defective vascular formations caused by hormonal effects, particularly during pregnancy or in the course of infections [10]. Some cases have presentations such as ovarian torsion, acute abdominal pain, mass-effect-induced abdominal enlargement, ascites, and elevated CA-125 levels, clinically imitating an ovarian carcinoma [11] [12]. In the present case, the patient had only intermittent lower abdominal pain and no other complaints. As she had experienced no pain for two years, she did not attend the control visit as requested and later presented with an enlarged and painful left ovarian mass. Although ovarian hemangiomas appear to be non-functional, some studies suggest a connection between ovarian hemangiomas and thrombocytopenia, postmenopausal bleeding, endometrial hyperplasia, or endometrial carcinoma [13] [14]. Hence, differential diagnoses in terms of ovarian hemangioma include tubo-ovarian mass, chocolate cyst, degenerated uterine or intraligamentous myoma, angiosarcoma, lymphangioma, ovarian tumor (e.g., fibrothecoma, Brenner tumor, mature or immature teratoma), or ovarian malignancy [15]. Pelvic localization of schwannomas, which are benign retroperitoneal peripheral nerve sheath tumors originating from Schwann cells, should also be considered in relation to differential diagnosis [16]. In the reported case, there was a high suspicion of pelvic schwannoma due to the MRI findings, leading to surgical therapy being performed, which resulted in the mass being his-

topathologically diagnosed as ovarian hemangioma.

MRI imaging and color Doppler ultrasound are both valuable techniques for detecting preoperative ovarian hemangioma with rich vascularization [12] [17]. MRI characterizes the mass, where T2-weighted images reveal the isointensity of cerebrospinal fluid, which significantly intensifies on contrast-enhanced T1-weighted images [18]. In the reported case, MRI demonstrated interval enlargement to 54 × 44 mm. The lesion appeared hypointense on the T1-weighted imaging and hyperintense on the T2-weighted and fat-suppressed sequences, with marked heterogeneous enhancement following contrast administration. Thus, radiologic differential diagnosis primarily indicated pelvic schwannoma.

Hemangioma should be considered as a differential diagnosis when a growing adnexal mass or a hemorrhagic ovarian lesion is encountered in a postmenopausal woman [4]. The preferred course of treatment is surgical excision of the suspected mass via either laparotomy or laparoscopy. Ovarian-sparing surgery is recommended for young women, especially in relation to non-suspicious tumors, whereas ovariectomy is preferred in postmenopausal women. Moreover, histopathological confirmation remains the gold standard for diagnosis and appropriate management [19]. The prognosis of ovarian hemangiomas is generally favorable, with timely diagnosis and appropriate surgical intervention typically leading to positive patient outcomes [20].

4. Conclusion

Growing adnexal masses in postmenopausal period are of importance due to the malignancy potential. MRI seems to be helpful in differential diagnosis and histopathological investigation is the gold standard in final diagnosis. Surgical excision of the suspected mass is essential in postmenopausal women, whereas ovarian sparing surgery should be considered in women who desire fertility.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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