

Ovarian Sclerosing Stromal Tumor: Two Case Reports

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Abbreviations: SST: Sclerosing Stromal Tumor

Introduction

Ovarian sclerosing stromal tumor (SST) is a rare benign tumor of the stroma and sex cords. It accounts for 2 to 6% of all ovarian stromal tumors, [1] and most commonly occurs in young women under the age of 30 [2]. This type of tumor requires thorough clinical and histopathological evaluation to establish an accurate diagnosis and plan appropriate treatment [3].

Materials and Methods

We report two anatomico-clinical observations of ovarian TSS diagnosed at our institution.

Results

Observation 1

Clinical Presentation: Our patient was an 18-year-old single woman with no previous pregnancies and no particular medical history, who presented with pelvic pain associated with abdominal distension for one year, with no change in her general condition. Gynecological examination revealed a pelvic mass halfway between the navel and the pubic bone.

Imaging: A pelvic ultrasound revealed a 10 cm solid-cystic mass on the left side of the uterus. MRI would be helpful for

preoperative diagnosis [4].

Surgical Procedure and Macroscopic Examination: The surgical procedure consisted of an oophorectomy and removal of ascites fluid. Macroscopic examination revealed an ovary entirely occupied by a nodular neoplasm measuring 11 cm in diameter. When cut, this neoplasm appeared encapsulated, pinkish in color, and soft in consistency. It was the site of hemorrhagic, edematous, and greenish myxoid changes.

Histopathological and Immunohistochemical Study: The histopathological study showed a well-defined benign stromal tumor proliferation with a pseudo-lobular architecture. The cells were either fusiform with a round to ovoid nucleus and poorly defined eosinophilic cytoplasm, or epithelioid with vacuolated, clear cytoplasm and a slightly atypical central nucleus. The stroma was hypocellular and edematous. No ovarian parenchyma was found, and the ascites fluid was non-malignant. This tumor proliferation was accompanied by rich vascularization [5].

An immunohistochemical study showed immunoexpression of anti-inhibin, anti-desmin, anti-AML, and anti-vimentin antibodies [2]. The diagnosis of TSS was therefore confirmed.



Observation 2

Clinical Presentation: Our patient was a 55-year-old single woman with no children and no particular medical history, who presented with pelvic pain that had been developing over the past seven months while her general health remained stable. The gynecological examination was borderline normal.

Imaging: A pelvic ultrasound revealed a rounded mass on the left side of the uterus with irregular contours in places, heterogeneous echostructure, richly vascularized on Doppler, with a central necrotic area measuring 5x4 cm.

Pelvic CT showed a 6x5 cm mass on the left side of the uterus.

Surgical procedure and macroscopic examination: The surgical procedure consisted of an adnexectomy. Macroscopic examination revealed an ovary entirely occupied by a hard mass measuring 8x6x4 cm in diameter. When cut, this neoplasm appeared encapsulated, whitish in color, and hard in consistency. It was the site of hemorrhagic, yellowish changes.

Histopathological and immunohistochemical study: The histopathological study showed fusiform tumor proliferation on a well-defined benign sclerosing background. The cells were either fusiform with a round to ovoid nucleus and poorly defined eosinophilic cytoplasm, or epithelioid with vacuolated, clear cytoplasm and a slightly atypical central nucleus. The stroma was hypocellular and edematous. No ovarian parenchyma was found, and the ascites fluid was non-malignant. This tumor proliferation was accompanied by rich vascularization.

An immunohistochemical study showed immunoeexpression of anti-inhibin, anti-desmin, anti-AML, and anti-vimentin antibodies. The diagnosis of TSS was therefore confirmed.

Discussion

Ovarian TSS is an anatomical, clinical, and radiological entity distinct from the bro-theal group of ovarian tumors [1]. It mainly affects young women with often nonspecific clinical presentations, such as abdominal pain, abdominal distension, or a palpable pelvic mass [3].

The patient may also show signs of compression of adjacent organs depending on the size of the tumor [4]. Preoperative

diagnosis can be guided by imaging (particularly MRI), allowing for better treatment planning.

Histopathological examination, sometimes aided by immunohistochemical analysis, confirms the benign nature of the tumor and rules out other differential diagnoses, particularly in cases where the clinical picture is unclear [2].

Treatment

Oophorectomy (removal of the affected ovary) is generally sufficient for unilateral tumors [5]. In cases of bilateral or recurrent tumors, a more conservative approach may be considered to preserve fertility [3].

Conclusion

The prognosis for patients with ovarian stromal sclerosing tumors is excellent due to the benign nature of these tumors. Recurrence is rare after complete excision of the tumor [1]. Although rare, ovarian SST should be considered in the differential diagnosis of ovarian masses in young women. Appropriate diagnosis and treatment ensure an excellent prognosis and preservation of fertility.

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