Characterization of Rare Ovarian Neoplasm Serous Cystadenofibroma

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Case Presentation: This study focuses on a 64-year-old G3P3 woman who desired surgical management for a complex adnexal mass. She endorsed several years of pelvic pain, and we learned from medical records that the tumor formation was first mentioned 2 years prior in the setting of a left ovarian cyst discovered during a transvaginal ultrasound (TVUS). The patient underwent menopause at 41, and her menstrual history was unimpressive. She has no family history of breast, ovarian, uterine, or colon cancer. Physical examination revealed tenderness in the left adnexal region. TVUS showed a left ovary 3.7 x 3.4 x 3.3 cm with a cystic area measuring 1.6 x 1.6 x 1.8 cm. The patient also had concomitant endometriosis. All routine examinations and tumor markers AFP, CEA, CA-19.9 and CA-125 were within reference values. Following the bilateral salpingo-oophorectomy, gross examination of the specimen revealed the surface of the left ovary measured 3.8 x 2.5 x 3 cm and had multiple clear fluid-filled cysts. There were areas of white firm fibrous nodules also on the surface, which measured 0.7 cm and 0.9 cm. Cut section revealed a multiloculated cystic ovary containing clear yellow fluid. A white nodular area was present along the lining which measured 0.7 cm. The remainder of the cysts' linings were smooth, and no papillary excrescences were identified. Histopathologic findings of the left ovary revealed serous cystadenofibroma, numerous cortical inclusion cysts, and no evidence of atypia or malignancy. The patient was discharged in good condition, and she is well on follow-up.

Discussion: The Cystadenofibroma is a benign ovarian neoplasm that is poorly characterized in current literature. This neoplasm is exceedingly rare, making up 1.7% of all ovarian neoplasms [1]. According to the literature on current understanding, the etiology of this type of tumor in some cases is likely a mullerian duct remnant rather than a proliferative neoplasm [1,2]. Cystadenomas contain both a dominant cystic component and sometimes a fibrostromal component. In contrast to the cystadenoma, the cystadenofibroma demonstrates a dominant fibrous component. These tumors are classified by epithelial cell types, yielding four categories cystadenofibroma: serous, mucinous, clear cell, and mixed [3]. This case describes a serous cystadenofibroma, one of the more common subtypes. Distinguishing cystadenofibromas from other chronic adnexal masses is necessary to rule out malignancy and determine treatment course. Differential diagnosis includes ovarian cyst, tubo-ovarian abscess, teratoma, cystadenoma, endometrioma, and malignant tumor. Patients may present with a variety of non-specific symptoms. Symptoms that are common in patients with an adnexal mass include pelvic or abdominal pain, dyspareunia, irregular vaginal bleeding, bloating, and symptoms of mass effect such as urinary frequency, constipation, and pelvic pressure [4,5]. A mass may be palpable on physical exam. To further characterize the adnexal mass, imaging may be performed. TVUS is recommended in the evaluation of adnexal masses. Cystadenofibromas appear as uni- or multilocular masses with thin walls, anechoic cystic contents, and hyperechoic solid components [3,6]. Blood flow, if detected, is typically peripheral. MR imaging is sometimes performed for adnexal masses. Characteristics of cystadenofibromas include solid portions with low-intensity T2 signal, thickening of septations with low-intensity T2 signal, and multiple high-intensity T2 signal cysts with low-intensity solid components that has a sponge-like appearance [3,7]. Ultimately, definitive diagnosis is made via biopsy. Treatment of cystadenofibroma is surgical resection. The importance in accurate diagnosis of cystadenofibroma is that, due to its benign nature, surgery could be avoided if the mass is asymptomatic [8]. Future considerations for cystadenofibromas include the association of these masses with other gynecologic pathologies such as endometriosis.

Works cited

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