

Benign and Borderline Cystadenofibroma of the Ovary

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Two cases of ovarian cystadenofibromas are presented. First case was a 33-year-old woman who was subjected to ovarian cystectomy during cesarean delivery. The cystic mass had solid papillary projections on gross examination and histopathological diagnosis was a benign mucinous ovarian cystadenofibroma. Other patient was a 63-year-old postmenopausal woman presenting with a pelvic mass. During exploratory laparotomy, left ovarian mass having both cystic and solid components was detected. Frozen examination revealed an ovarian cystadenofibroma with borderline foci. Therefore, a staging surgery was performed. Final pathologic examination revealed a stage 1a borderline ovarian cystadenofibroma.

Ovarian cystadenofibromas are rare epithelial tumors with fibrous stroma being the dominant component of the lesion. They usually appear as multilocular cystic masses with solid components mimicking ovarian cancer both on imaging modalities and during surgical exploration. Therefore, accurate preoperative or intraoperative diagnosis is required to avoid excessive surgical procedures.

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Key Words: Cystadenofibroma, Ovarian cancer, Borderline ovarian tumor, Frozen section

Introduction

Ovarian cystadenofibromas are rarely seen epithelial ovarian tumors with fibrous stroma being the dominant component of the lesion. These tumors are classified according to the type of epithelial cells lining the cystic component. Most of the ovarian cystadenofibromas are benign. However, borderline and malignant tumors may also be encountered.^{1,2}

The typical appearance of cystadenofibroma is multilocular cystic mass with a solid component.² On preoperative imaging modalities including ultrasonography, computerized tomography and magnetic resonance imaging, these tumors may be diagnosed as malignant lesions due to their solid components or thick septa.^{3,4} The tumor may also have the typical appearance of an ovarian malignancy even at the time of surgery. In these cases, a frozen section analysis may help avoiding unnecessary extensive surgical interventions especially if the patient is in the reproductive period.^{4,5}

The aim of this study is to report two cases of cystadenofibromas of the ovary accurately diagnosed after pathological examination of the suspicious ovarian masses detected by ultrasonographic evaluation.

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Case 1

A 33-year-old gravidity 3, parity 1 woman was delivered via cesarean section at 39 weeks of pregnancy with an indication of repeat section. Her antenatal course was uneventful. On her past medical history, she reported a right ovarian cyst with a diameter of 5 cm which was observed conservatively with negative tumor markers for nearly 3 years. During antenatal follow-up, the cyst was persistent with same dimensions. During cesarean delivery, due to its persistence, the right ovarian cystic mass without solid components was removed by cystectomy. The cystic mass was reported to have milimetric solid papillary projections on gross pathologic examination and the histopathological diagnosis was a benign mucinous cystadenofibroma of the ovary. The patient is asymptomatic nearly 1 year after the operation with normal pelvic examination and ultrasonography findings.

Case 2

A 63-year-old woman admitted to hospital with a complaint of pelvic pain. Pelvic examination revealed a fixed pelvic mass. Ultrasonography confirmed a 10x8 cm multicystic mass containing solid components originating from the left ovary. Although her serum tumor markers were in normal limits she was subjected to an exploratory laparotomy with an indication of postmenopausal pelvic mass suggesting ovarian malignancy. During laparotomy, a 10 cm, multiloculated left ovarian mass having both cystic and solid components and irregular contours was detected. The mass was densely attached to uterus and rectosigmoid colon and was filling the Douglas pouch. Grossly, the mass was highly suggestive of an ovarian malign neoplasm. The exploration of the whole abdomen and

pelvis was free of any other abnormalities except for multiple lymphatic node enlargements up to 2 cm at pelvic and paraaortic regions. The frozen examination of the mass revealed a cystadenofibroma of the ovary with borderline foci. Therefore, the patient was subjected to a staging surgical procedure including total abdominal hysterectomy, bilateral salpingo-oophorectomy, bilateral pelvic and paraaortic lymph node dissection, infracolic omentectomy and appendectomy. A borderline ovarian serous cystadenofibroma limited to left ovary with intact ovarian capsule indicating a stage 1a borderline ovarian tumor was reported at final pathologic examination (Figure 1 and 2). Postoperative course was uneventful and no adjuvant treatment was planned. The patient is asymptomatic 2 months after the operation.

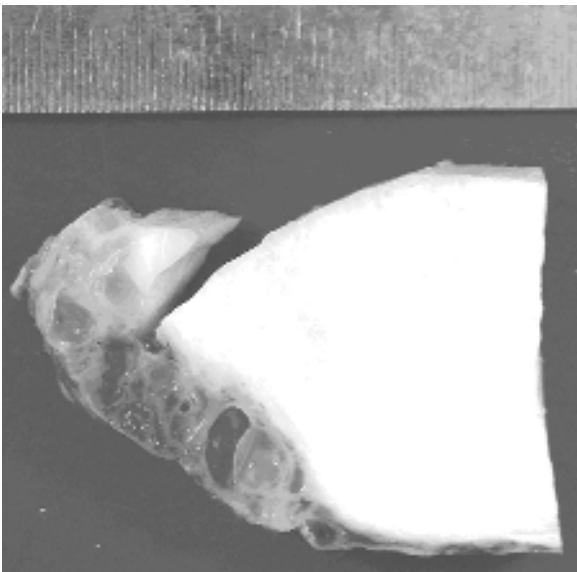


Figure 1: Gross view of the sectioned specimen including both solid and cystic components of the lesion

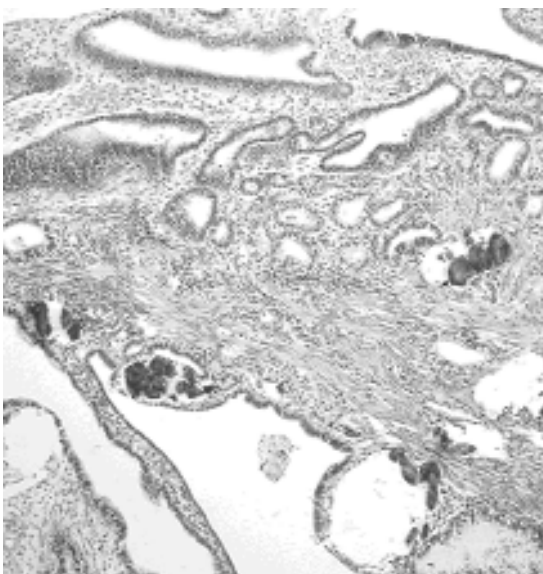


Figure 2: Microscopy of the lesion with Haematoxylin-Eosin staining

Discussion

When an ovarian cystic mass with solid components is detected, ovarian malignancy is strongly suggested which may necessitate extensive cytoreductive surgical interventions due to its aggressive behavior and poor prognosis.⁶ On imaging modalities, the criteria which are most useful in ovarian malignancy prediction are lesion size exceeding 4 cm, thickness of the walls and septa exceeding 3 mm, presence of internal papillary projections, necrosis and hemorrhage.⁷ Fortunately, some patients with such complex masses may be diagnosed to have ovarian cystadenofibroma which is a rarely seen epithelial ovarian tumor with fibrous stroma being the dominant component.

Ovarian cystadenofibromas may affect women of any age. In a series of 23 patients with ovarian cystadenofibroma, the age of the patients ranged from 19 to 88 years.³ As consistent with this series, one of our patients was at reproductive age and the other was postmenopausal. The mean diameter of the lesion was reported to be 7.3 cm ranging between 2 and 20 cm.³ The masses of our patients were 5 and 10 cm in diameter. Most of the patients were judged to have lesions suspicious for ovarian malignancy.³ The mass of our postmenopausal patient also suggested an ovarian malignancy both preoperatively and intraoperatively.

The solid element of ovarian cystadenofibroma detected by magnetic resonance imaging and ultrasonography commonly gives this mostly benign tumor a malignant appearance.^{2,3,4} On the other hand, the Doppler studies show normal blood flow pattern in most of the cases.³ Therefore, Doppler examination performed in combination with conventional ultrasonography may help distinguishing the lesion from apparently ovarian malignancy. However, since the tumor may appear grossly as a malignant tumor even at the time of surgery, a frozen section analysis is mandatory especially for patients desiring future fertility.³ Although the lesion of our younger patient appeared to be pure cystic on imaging techniques with negative tumor markers suggesting a non-malignant condition, it was removed during cesarean section due to its persistence for 3 years. On the other hand, the mass of the patient aged 63 years was highly suggestive of an ovarian malignancy. Therefore, she was subjected to an exploratory laparotomy and frozen section examination was requested. A staging surgery was performed at the same time following the report of a borderline ovarian tumor.

In conclusion, ovarian cystadenofibroma usually appears as a multilocular cystic mass with solid components mimicking malignant ovarian tumor either on imaging modalities or during surgical exploration. Therefore, accurate preoperative or at least intraoperative frozen section diagnosis is required to avoid excess surgical procedures.

Overin Benign ve Borderline Kistadenofibromu

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Ovaryan kistadenofibromu olan iki vaka sunulmuştur. İlk vaka sezaryen sırasında ovaryan kistektomi yapılan 33 yaşında bir hastaydı. Gros incelemede kistik kitlede solid papiller projeksiyonlar mevcuttu ve histopatolojik tanı benign ovaryan müsinöz kistadenofibromdu. Diğer hasta pelvik kitleyle başvuran 63 yaşında postmenopozal bir bayandı. Eksploratif laparotomide solid ve kistik komponentler içeren sol over kökenli kitle saptandı. Frozen incelemede borderline alanlar içeren ovaryan kistadenofibrom tespit edildi. Bunun üzerine evreleme cerrahisi uygulandı. Nihai patolojik rapor evre 1a borderline ovaryan kistadenofibrom şeklinde idi.

Ovaryan kistadenofibromlar baskın komponenti fibröz stroma olan ve nadir görülen epitelyal tümörlerdir. Hem görüntüleme tekniklerinde, hem de cerrahi eksplorasyon sırasında genellikle over kanserini taklit eder şekilde, solid kısımlar içeren multi-loküler kistik kitleler şeklinde görülürler. Bu nedenle geniş cerrahi işlemlerden kaçınmak için doğru bir preoperatif veya intraoperatif tanı gereklidir.

Anahtar kelimeler: Kistadenofibrom, Over kanseri, Borderline over tümörü, Frozen inceleme

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