

Bilateral serous papillary cystadenofibroma of the ovaries in a young female

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Introduction

Serous tumours comprise one fourth of all ovarian tumours. Most occur in adults. We present a case of a 24-year-old woman with bilateral ovarian masses which appeared to be malignant on imaging and perioperatively. However, microscopy revealed benign serous cystadenofibromas of the ovaries. This case signifies the importance of microscopy in neoplasms that masquerade as malignant on imaging, perioperatively and grossly.

Serous cystadenofibroma of the ovary is a relatively rare benign tumour of the ovary.¹ We present a case of bilateral ovarian serous papillary cystadenofibromas in a young female.

Case report

A 24-year-old woman presented with lower abdominal pain and a mass (for six months). On examination, a mass was felt in the bilateral adnexal region of the uterus. Ultrasonography of the pelvis showed a fibroid measuring 3 x 2 x 1.5 cm, and a mass measuring 13 x 9 x 6 cm in the right adnexa. The right ovary was not separately identified, and the left side revealed a mass of 8 x 8 x 6 cm. The left ovary was also not identifiable. These masses had a cystic component with thick septae and a solid component without definite evidence of posterior acoustic shadowing. There was no free fluid in the pelvis.

The patient underwent an exploratory laparotomy with an omentectomy. The specimen that we received was a panhysterectomy specimen, measuring 14 x 13 x 7 cm (Figure 1). On sectioning, an endomyometrium

was identified with an intramural mass, suspicious for an intramural fibroid, measuring 3 x 3 x 2 cm. The bilateral tubes were unremarkable. The right ovary



Figure 1: Gross appearance of bilateral ovarian tumours

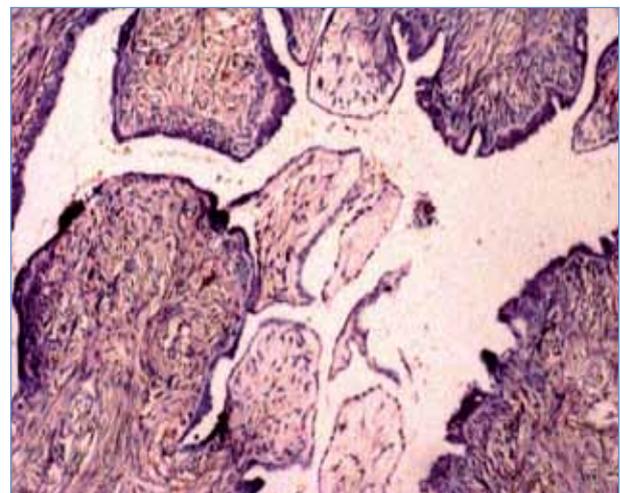


Figure 2: Photomicrograph showing pseudostratified low columnar-lined papillae and fibrous stroma (200 x)

was replaced by a multinodular tumour with solid and cystic areas measuring 14 x 10 x 6 cm (Figure 1). On the cut surface, multiple cysts were present. The largest was 6 x 6 cm and was characterised by grey-white, hard papillary areas. On the left side, a tumour measuring 8 x 8 x 7 cm was identified with the same morbid anatomical features. The largest cyst measured 3 x 3 cm. On microscopic examination, an endometrium in the secretory phase with adenomyosis of myometrium was discovered.

A uterine tumour was revealed as an adenomyoma. The cervix was unremarkable. Sections from the ovaries revealed pseudostratified low columnar cells with oval bland nuclei-lined glands and papillae embedded in dense fibrous stroma (Figure 2). There was no atypia, mitotic activity, glandular complexity or stromal invasion. The omentum had no evidence of invasion. The tumour was diagnosed as bilateral papillary serous cystadenofibromas.

Ovarian cystadenofibromas are uncommon, benign neoplasm-containing epithelial and fibrous stromal components. They account for 1.7% of all benign ovarian tumours and occur in women aged 40-50 years. Because of their solid component and irregular thick septae, on imaging these masses are often misdiagnosed as malignant preoperatively. Even on examination at the time of surgery, a cystadenofibroma may resemble a malignant tumour.² Generally, cystadenomas are lined by a single layer of flattened to cuboidal cells with uniform basal nuclei. However, cells can be pseudostratified and

tubal in type with characteristic elongated (secretory cell) or rounded (ciliated cell) nuclei. Mitoses and atypia are absent. Psammoma bodies are present in the stroma in 15% of cystadenomas. The stroma of benign serous tumours can resemble normal ovarian stroma, but is generally more fibrous. Oedema is sometimes present. When the stroma is highly cellular and fibrous, the tumour can be designated as "adenofibroma".¹ However, ovarian cystadenofibromas may have several macroscopical characteristics of ovarian cancer (vegetation, thick-walled and anarchic vascularisation of the ovarian cortex).³

As cystadenofibromas can resemble malignant tumours perioperatively, when available, a frozen section examination should be performed to direct the surgeon and prevent the patient from having to undergo major surgery. This case illustrates the importance of microscopic examination of ovarian tumours with unusual morphology and masquerading as malignant neoplasms, as was the case in this young patient.

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