Giant serous papillary cystadenoma

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INTRODUCTION

Serous tumours develop by invagination of the surface epithelium of ovary and they secrete serous fluid. Serous tumours are generally benign; 5–10% have borderline malignant potential, and 20–25% are malignant. Serous cystadenomas usually are multilocular and sometimes have papillary projections. We present a case of giant serous papillary cystadenoma weighing 6.5 Kg which was benign in nature.

CASE REPORT

A 28-year-old mother of two children reported to gynaecology OPD with history of gradual swelling of the abdomen for the last six months. She also gave history of increased frequency of micturation for the last two months. Menstrual cycles were regular with normal flow and duration. On examination her vitals were stable and systemic examination was within normal limits. Per abdomen examination showed a mass extending beyond the umbilicus about 28–30 weeks size of a gravid uterus Figure 1. It had a smooth margin, and was non-tender and cystic in nature. Per vaginum, groove sign was present but size of the uterus cannot be made as the mass was occupying whole of the pelvis. Ultra sonography showed a $19 \times 20 \text{ cm}^2$ size unilocular cyst with no solid components and right ovary was not seen separately. Uterus and left ovary were normal. All biochemical and haematological investigations were within normal limits. Ca_{125} was marginally raised (51.2 IU/mL). The RMI score of the patient was 51.2.

She was operated under combined spinal-epidural anaesthesia. Midline vertical incision was given. Per operative a $20 \times 22 \text{ cm}^2$ size right ovarian cyst was observed, ovarian tissue was not seen separately, and tube was stretched over the cyst Figure 2. Left ovary, tube, and uterus were normal Figure 3. A right salpingo-oophorectomy was done Figure 4. Post-operative period was uneventful and she was discharged on fourth post-operative day. Histopathology showed serous papillary cystadenoma Figure 5.

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Figure 1 Pre-operative.

Figure 2 Giant serous papillary cystadenoma (before removal).

Figure 3 Normal left ovary.

Figure 4 Giant serous papillary cystadenoma (after removal).

Figure 5 Histopathology photograph of serous papillary cystadenoma.

DISCUSSION

In the wall of the mesothelial invaginations, papillary in-growth is common representing the early stages of development of a papillary serous cystadenoma. Psammoma bodies (foci of foreign material) are frequently associated with mesothelial invaginations. This psammoma bodies may be a response to irritative agents that produce adhesion formation and the entrapment of the surface epithelium. Serous tumours are usually seen during the reproductive age group and 50% before the age of 40 years. About 10% of women with ovarian serous borderline tumours have extra-ovarian implants and some will eventually die of the disease.¹ To distinguish between benign, borderline, and malignant serous tumours, frozen section is necessary because this distinction may not be made on gross examination. The value of tumour marker, Ca_{125} in a premenopausal woman with a pelvic mass has been widely debated. Many benign conditions like fibroids, pregnancy, endometriosis, and pelvic

inflammatory disease can cause elevated Ca_{125} levels. RMI (risk of malignancy index) scoring system have been developed that use ultrasound characteristics with menopausal status and Ca_{125} absolute value in an attempt to predict the risk of malignancy of ovarian mass.²

- Total score: $USG \text{ score} \times \text{menopausal score} \times Ca_{125} \text{ (U/MI)}$.
- USG score: 0, no risk factor; 1, one risk factor; 3, 2–5 risk factors.
- High risk factors in USG: Multiloculated cysts, solid areas, bilateral lesions, ascites, and evidence of metastasis.
- Menopausal status: 1, pre-menopausal; 3, post-menopausal.
- Score <200: low risk (risk of ovarian malignancy is 0.15 times).
- Score >200: high risk (risk of ovarian malignancy is 42 times).

When 200 is taken as cut-off for RMI, sensitivity is 85% and specificity is 97%.³ In women with pelvic mass (using cut-off value of Ca_{125} 35 IU/ml) sensitivity of Ca_{125} is 81% and positive predictive value is 72%.⁴ Ca_{125} should be above 135 to achieve 100% specificity in determining benign from malignant masses.^{5,6} Histopathological examination of surgically removed mass remains the standard of care. An ovarian cystectomy should be done for benign ovarian masses. Preserving a small amount of ovarian cortex in a young patient with a benign lesion is preferable to the loss of entire ovary.

CONFLICTS OF INTEREST

None identified.

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