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Case Report

Mucinous cystadenoma of both ovaries and appendix: a case report

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ABSTRACT

Epithelial neoplasm of ovaries is common and almost 40% of them are benign. Cystadenoma of ovary is the commonest epithelial neoplasm. They can be serous or mucinous. They arise from the surface epithelium of ovary, some of them may have germ cell origin. They are multilocular. 80% of ovarian mucinous cyst are benign cystadenoma. They are unilateral in 95% of cases. In this case presentation, it was bilateral and appendix was also showing mucinous cystic degeneration. The mucinous cystadenoma of the appendix is the most common mucinous cyst of the appendix, but the definite diagnosis is made at the time of surgical intervention only. The confirmation is reached by histopathology examination of specimen. This interesting case report is that of a giant bilateral ovarian mucinous cystadenoma of ovary along with the cystic degeneration of appendix. This is a rare case presentation scenario where bilateral giant cyst is found along with same pathology in appendix.

Keywords: Mucinous cystadenoma, Ovarian cyst, Cyst adenoma of appendix

INTRODUCTION

Epithelial neoplasm of ovaries is common and 40% of them are benign.[1] The most common benign epithelial neoplasm of ovaries are cystadenomas; they are easy to diagnose and treat, they carry excellent prognosis. The cyst adenoma may be serous or mucinous type; the definite diagnosis is made by histopathological examination of surgical specimen. These benign tumours arise from the surface epithelium of ovary. They are multilocular cyst with smooth outer and inner surfaces. It tends to be huge in size, and it comprises of about 15% of all the ovarian tumours.[2,3]

The mucinous cystadenoma has surface epithelium origin and KRAS mutation are present in up to 58% of cases.[4] Some of it have germ cell origin.[5] 80% of ovarian mucinous cyst are benign cystadenoma. They occur mainly during third to sixth decade but may occur in younger women also.[6] They are unilateral in 95% of the cases. In our case presentation they were bilateral and the appendix was also showing mucinous cystic degeneration. 80% of mucinous cystadenomas are benign, 10% are border-line and 10% are malignant. It contains mucinous fluid, its rupture leads to pseudomyxoma peritonei, i.e., mucinous deposits on the peritoneum.

The mucinous cystadenoma is the most common mucous cyst of the appendix, yet clinically it cannot be diagnosed since the findings are non-characteristic.[7] Mostly it is diagnosed at laparotomy, and it an incidental finding. The diagnosis is confirmed by histopathological examination of the specimen.[8] The benign or neoplastic mucinous lesions are usually diagnosed in patients at their 50s and 60s and have a slight female predominance.[9] This report presents a case of a giant bilateral ovarian mucinous cystadenoma, along with cystic degeneration of appendix.

This is a rare case presentation scenario where bilateral giant cyst is found along with same pathology in appendix.

CASE REPORT

The patient presented at Government District Hospital, Jagdalpur in outpatient department (OPD) of the department of obstetrics and gynaecology with a massive abdominal distension and discomfort. On examination of abdomen there was a vague ill-defined rounded swelling arising from pelvis. The rounded swelling occupying almost whole of the abdominal cavity and extending up to hypochondrium. It could be moved in both longitudinal and transverse axes. A provisional diagnosis of ovarian cyst was made.

Figure 1: Huge, distended abdomen on clinical examination.

The pelvic examination revealed normal size non pregnant uterus and fullness in Douglas pouch. The lab investigation showing haemoglobin (Hb) 10.5 gm/dl, liver and kidney function test were normal. The ultrasound study of abdomen revealed multiloculated cystic swelling arising from ovaries on both the sides. The right bigger than left. The imaging was consistent with mucinous cyst of ovaries. There was minimal fluid in the peritoneal cavity. On examination of other structures there was a distended appendix with cystic degeneration.

Patient and the husband were counselled and an informed consent taken for exploratory laparotomy. The abdomen opened through infraumbilical midline incision. There was minimal reactionary peritoneal fluid. There were two huge cystic mass on both the sides of uterus arising from ovaries with hydrosalpinx. The right cystic mass required debulking before its delivery to outside of abdominal wound. The pedicle of the right cyst clamped and cyst removed, same procedure repeated on the left side also. Once out, the weight of right cyst along its content was eight kilograms and that on left side weighing five kg. The content of the cyst was typically thick and mucinous. On histopathological examination the specimen of ovarian cyst was composed of multiple cysts and glands lined by simple non-stratified mucinous epithelium. The ovarian stroma was cellular. There are no cytologic atypia and no mitotic figures.

The appendix was also found having cystic degeneration. Appendicectomy done and specimen send for histopathology examination. The gross pathologic examination demonstrated a 10×3 cm cystic structure, resembling appendix. Microscopic examination revealed a cellular atypical epithelium. No mucin on the serosal surface or in the adipose tissue. The were no malignant cell found. The histopathological diagnosis was confirmed as mucinous cystadenoma of appendix.

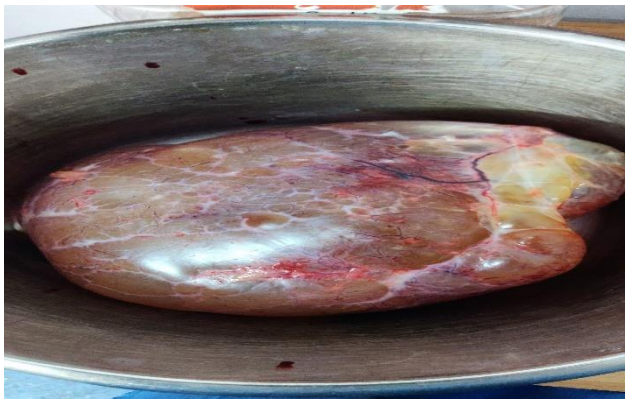

Figure 2: Right ovarian cyst gross specimen.

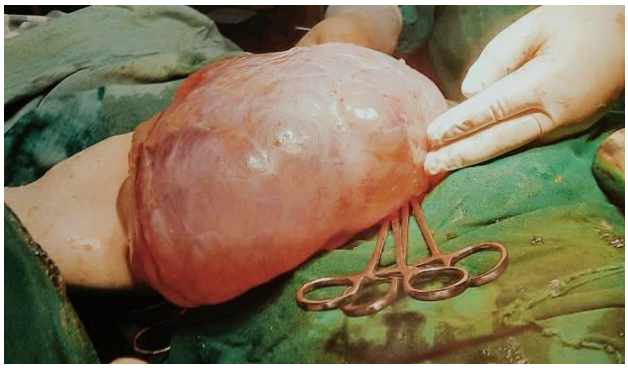

Figure 3: Left ovarian cyst gross specimen.

Figure 4: Cystadenoma of appendix gross specimen.

The post-operative period was uneventful and patient discharged on 10th day after removal of stitches.

DISCUSSION

Adnexal tumours are common in postmenopausal women and usually presents as a symptomatic mass in lower

abdomen. There is always an anxiety in the mind of patients of it being malignant but most of them are benign.[10,11] Giant ovarian tumours are known to occur and reported in the literature; however, the incidence is declining due to imaging facilities and early diagnosis on routine checkups. Most of the ovarian cysts are benign in nature. The mucinous cystadenoma is one such benign ovarian tumour, and the surgical intervention gives good results. It is not common in younger age or with pregnancy.[12,13] They are characterised by cystic swelling arising from ovaries and of variable sizes, they do not invade the surface of ovaries. Bilateral primary mucinous cystadenoma of ovaries is uncommon and the incidence is less than 10%.[14] Ovarian tumours can be classified as stromal tumours (granulosa-theca, Sertoli and Leydig cells); germ cell tumours (undifferentiated and extraembryonic) and epithelial tumours (cystadenoma, borderline cystadenoma, and cystadenocarcinoma).[10]

On gross appearance they are smooth walled cystic swellings containing viscous or serous fluid with septations in the cyst. They are lined by a single layer of epithelial cells without atypia.[15] On clinical examination the big cysts are palpated as smooth rounded swelling in the lower abdomen. The diagnosis is confirmed by imaging studies like ultrasound and CT scan/MRI.[16,17] The study of tumour markers like CA125 and CAE may help to differentiate benign form malignant tumours. The combination of a normal CA-125 assay, imaging and clinical examination exclude the possibility of ovarian cancer.[18] The imaging techniques useful for the diagnosis of ovarian cystadenoma are ultrasonography of pelvis, CT, and MRI.[19] Unilocularity, minimal septation, thin wall and absence of papillary projections suggests benign cystic neoplasm of ovary. The definitive diagnosis of ovarian cystadenomas is based on histopathological examination of the surgical specimen. Surgery is the treatment of choice, aspiration during operation may reduce the size of cyst and removal becomes easy. The recurrence is uncommon and if it occurs, it reflects either incomplete removal or new primary tumour. The most common benign tumour of appendix is mucinous cystadenoma.[20]

The pre-operative diagnosis is always difficult and poses diagnostic difficulties, as in our case. It is usually diagnosed incidentally or when laparotomy is done for other ailment like ovarian cyst as in this case presentation. It is managed during operation to minimise its rupture and peritoneal seeding, otherwise pseudomyxoma peritonei is one of the possibilities.

CONCLUSION

Mucinous cystadenoma is a benign ovarian tumour, it is more commonly observed in the middle-aged women. Only 10% primary mucinous cystadenoma are bilateral. This case presentation is about a bilateral ovarian cyst along with mucinous cystadenoma of appendix. The case is managed with laparotomy.

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