



Mucinous Cystadenoma of Ovary with Benign Brenner Component: A Case Report

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ABSTRACT:- Surface epithelial tumors are the most common neoplasms of the ovary. Among these, mucinous tumors accounts for 14% of ovarian tumors. Mucinous tumors coexist with other surface epithelial tumors. Here we report a case of mucinous cystadenoma of ovary with benign Brenner component in a 75 year old post menopausal woman who presented with mass per vagina since 4 months. Coexistence of these two tumors supports the theory of common origin of surface epithelial tumors from coelomic or germinal epithelium.

Keywords:- Brenner tumor , Mucinous cystadenoma, Ovary, ovarian tumors.

I. INTRODUCTION

Surface epithelial tumors account for approximately two- third of all ovarian neoplasms, and their malignant form represents about 90% of ovarian cancers.^[2] Mucinous tumors are characterized by glands and cysts, which may have papillae, lined to variable extent by mucin-containing epithelial cells.^[2] These tumors accounts for 14% of ovarian tumors.^[1,5] Approximately 75% are benign, 20% are borderline and remaining are invasive carcinomas.^[2] Brenner tumors account for 2% to 3% of all ovarian neoplasms, but most of them are incidental findings at operation or on pathological examination.^[2] Mucinous cystadenoma of ovary occasionally contains small nodules of Brenner tumor. Also, Brenner tumors often have mucinous epithelial cells lining the centre of transitional cell nests, and they occasionally develop a discrete mucinous component identical in other respects to mucinous cystadenoma.^[4]

II. CASE REPORT

A 75yr old postmenopausal, hypertensive woman presented with complaint of mass per vagina since 4 months. Clinical examination revealed third degree utero-vaginal prolapse with cystocoele.

Ultrasound abdomen showed well defined cystic lesion measuring 9.6 X 12 X 11.3 cm, showing multiple septations in left ovary. Patient underwent exploratory laparotomy with hysterectomy with bilateral salpingo-oophorectomy.

On gross, specimen consisted of utero-cervix with right adnexa and separately sent left ovary with fallopian tube. Utero-cervix measured 8 X 4 X 2 cms. Left ovary consisted of cystic mass which measured 13 X 10 X 7 cms, with attached fallopian tube measuring 6 cms. Cut surface of the cyst showed mucoid area with a grey white solid nodule which measured 2 X 1 cm in cyst wall.



Fig 1: Gross photograph showing ovarian cyst measuring 13 X 10 X 7 cms.

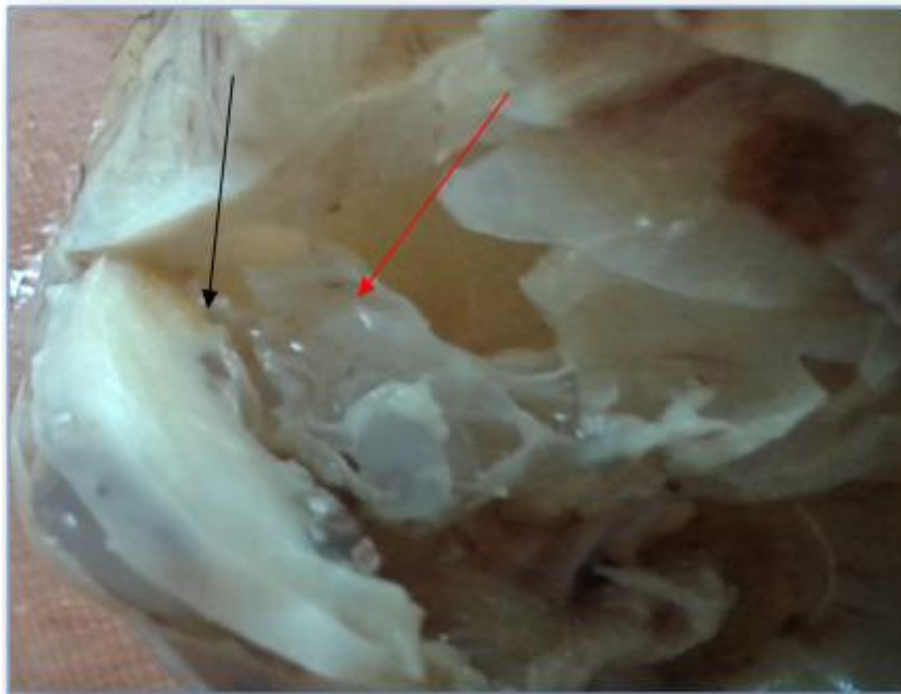


Fig 2: Cut section of ovary showing cystic area filled with mucinous material (red arrow) and foci of solid area measuring 2 X 1 cm, white in color (black arrow).

Microscopically section studied from endometrium showed cystic atrophy and cervix showed chronic cervicitis with epidermidisation. Sections from left ovarian cyst showed cyst wall lined by tall columnar epithelial cells with pale eosinophilic and mucinous cytoplasm and basal nuclei. Sections from solid area showed uniform sheets of cuboidal cells with clear to eosinophilic cytoplasm. Histological features were suggestive of mucinous cystadenoma of ovary with benign brenner component.

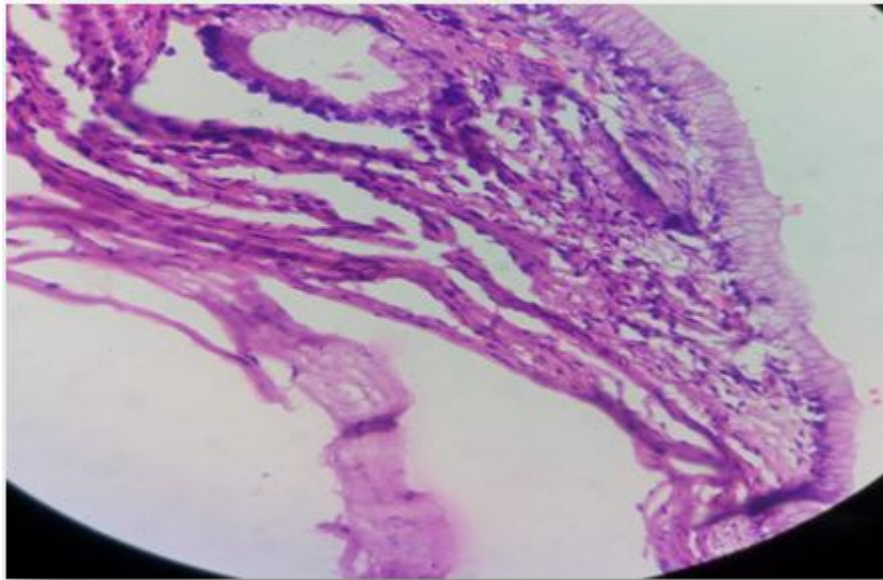


Fig 3: Photomicrograph showing cyst wall lined by tall columnar epithelial cells. (H & E 40 X 10)

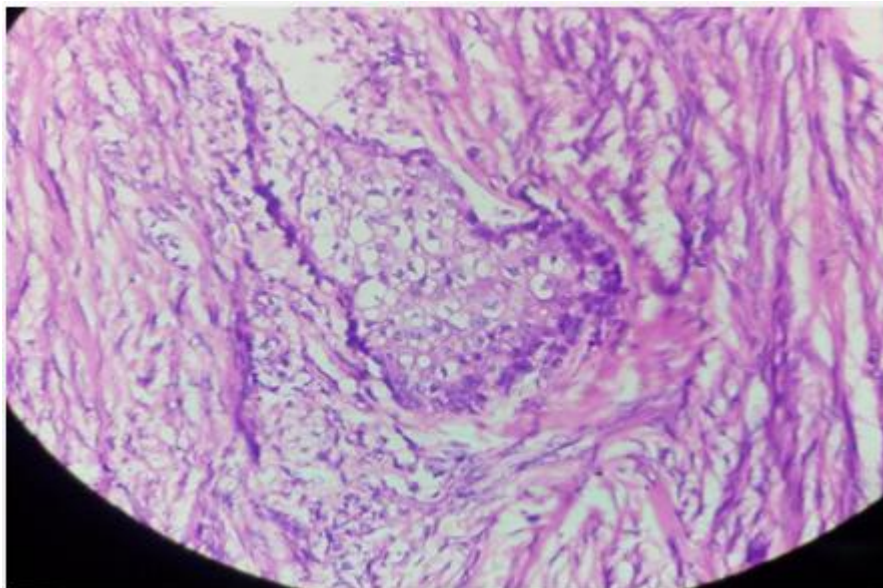


Fig 4: Photomicrograph showing nest of transitional epithelial cells with clear to eosinophilic cytoplasm. (H & E 40 X 10)

III. DISCUSSION

Surface epithelial tumors of ovary, numerically the most important group of neoplasms, have traditionally been thought to derive from the epithelium that normally lines the outer aspect of the ovary, variously referred to as surface, coelomic or germinal.^[3] Mucinous tumors constitute 14% of ovarian tumors.^[1,5] Brenner tumors account for 2% to 3% of all ovarian neoplasms.^[2] Most common mixed ovarian tumors are mucinous cystadenoma with combination of Brenner tumor, mature cystic teratoma, sertoli-Leydig cell tumor or even a serous cystadenoma.^[1,6] The combination of mucinous cystadenoma with Brenner tumor suggests common müllerian histogenesis.^[7] Mucinous tumors are multi loculated tumors filled with sticky, gelatinous fluid rich in glycoproteins.^[7] Approximately 75% of mucinous tumors are benign, 20% are borderline and remaining are invasive carcinomas.^[2] Histologically mucinous cystadenoma is lined by tall columnar epithelial cells with apical mucin and basal nuclei.^[1,8]

About 20% Brenner tumor occurs together with a mucinous or serous cystadenoma or a benign cystic teratoma.^[1,9] Brenner tumor is usually sited in the ovarian cortex and may also occur as a mural nodule in a mucinous cystadenoma.^[1] The average age at presentation is approximately 50 years, about 70% of the patients being over 40 years of age.^[3] Brenner tumor is a type of adenofibroma in which nests of transitional epithelium grow in fibrous stroma.^[1] Grossly, these tumors are usually circumscribed, firm, and white or yellowish white

solid fibrous tumors.^[1] Many are of microscopic size and most measures less than 2cm in diameter.^[1] On cut section they are formed of hard whitish grey tissue with whorled appearance.^[1,3] Microscopically tumor is composed of round to elongated, sharply demarcated, and small nests of epithelial cells lying within an abundant fibromatous stroma.^[1,2] The epithelial cells have round or oval nuclei and have small nucleoli and the cytoplasm ranges from clear to eosinophilic.^[1,2] The central portion of the cell nest is cystic which often is lined by flattened endothelial like cells to cuboidal or columnar cells.^[1] Coexistence of mucinous cystadenoma and Brenner supports the theory of a common origin either from coelomic epithelium or remnants of the embryonic mesonephric system.^[1]

IV. CONCLUSION

As mucinous cyst adenoma are one of the common tumors of ovary, careful evaluation of gross and microscopic features is necessary so as not to miss the foci of coexisting Brenner component.

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