

BILATERAL MALIGNANT BRENNER TUMOUR OF OVARY

(A Case Report)

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Introduction

Brenner tumour is a relatively uncommon neoplasm. To date about 4000 unilateral Brenner tumours have been reported, 32 bilateral (Kretchman, 1961). Only 11 malignant cases appear in the literature (Reel, 1958). The usual Brenner tumour is a benign fibroepitheliomatous enlargement of ovary, without any hormonal activity as a rule.

This paper describes a postmenopausal woman in whom a bilateral malignant Brenner tumour of ovary was found with probable oestrogenic activity indicated by polypoidal and cystic glandular hyperplastic change in the endometrium. The condition is extremely rare and has been seen for the first time in Himachal Pradesh.

CASE REPORT

Patient S. D. 55 years old female was admitted to the Lady Reading Hospital with the chief complaints of a mass in the abdomen since 2 months. Patient gave history of menopause 15 years ago.

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Accepted for publication on 29.7.78.

General examination revealed an average built woman who appeared anemic. Examination of chest revealed many crepitations and ronchi. Heart was normal.

Abdominal examination showed a cystic lump arising from the pelvis reaching upto the umbilicus. A solid nodular mass could be felt on right upper margin of this lump which was mobile from side to side. Veins over the lower abdomen were prominent. There was no ascites.

On vaginal examination along with the uterus a mass could be felt in the anterior and right fornices with a nodular feeling at the lower margin. This mass was continuous with the mass felt per abdomen. A clinical diagnosis of an ? ovarian tumour or ? Multiple uterine fibroids was made. Patient was operated on 31-8-77 and total abdominal hysterectomy with removal of bilateral ovarian tumours was done.

PATHOLOGICAL FINDINGS

Specimen consisted of uterus, cervix with bilateral adenexa weighing 1700 gms. Ovary on both sides was replaced by the partly solid partly cystic tumour. Tumour on the left side was larger and measured 18 x 3.5 x 8 cm. The cystic portion was filled with serous fluid. The inner lining in certain areas was smooth while in other areas multiple papillary projections could be seen. The solid portion appeared like a nodular cauliflower mass cut surface of which showed areas of necrosis. Tumour on the right side measured 8 x 7 x 3 cm. in size. Internal surface of cystic part was smooth. The solid nodular portion of tumour had the same appearance as on the left side.

MICROSCOPIC EXAMINATION

Microscopic examination revealed a very variable picture. The solid portion in few areas showed abundant dense stroma with evidence of calcification at places, surrounding islands of epithelial cells. The epithelial cells were large, ovoid or polyhedral with longitudinal grooving. In other areas there were bulky cell nests, highly cellular, exhibiting all the features malignancy and separated by very scanty stroma (Fig. 1).

Certain portions of the tumour were composed of irregularly proliferating masses of cells which showed no attempt at cell nest formation and there was no evidence of connective tissue stroma.

Many of the cell nests showed a cystic change and part of the tumour had been completely turned cystic; few of the cysts showed persistence of original epithelium while others were lined by degenerating cells. At other places however the lining cells showed frank squamous metaplastic change which revealed features of squamous cell carcinoma (Fig. 2).

There was no evidence of mucinous change in any portion of the tumour. Microsections from the endometrium showed evidence of polypoidal change and of cystic glandular hyperplasia.

On the basis of above findings, histopathological diagnosis of bilateral malignant Brenner tumour of ovary was made. Post-operative period was uneventful. Stiches were removed on 10th day and wound was healed. Patient left the hospital against medical advice and could not be followed up after this.

Discussion

The majority of cases of Brenner tumour reported are small tumours, found incidentally (Ming and Goldman, 1962). Occasionally large and cystic tumours have been reported by Talib *et al* (1974) and Rao *et al* (1974).

The incidence of Brenner tumour is given as 17% (Hertig and Gore, 1961). In recent Indian literature Ramachandran *et al* (1972) give the incidence as 1.22% among 903 ovarian neoplasms. Rao *et al* (1974) came across only one case among 196 ovarian tumours reported by them.

Raja Gopalan, 1977 reported only one case of Brenner out of 30 ovarian neoplasms seen in a period of 2 years.

In rare instances, Brenner tumours may be bilateral although recent study of 90 cases and files of ovarian registry showed no bilaterality (Novak and Woodruff, 1967). According to Farrar and Greene the incidence of bilaterality appears to be approximately 7%.

Until past few years Brenner tumours were regarded as almost hundred per cent benign. But in the last decade several cases of malignant tumours have been well documented (Raw Son and Helman, 1955; Bovard and Schaefer, 1957).

Malignant change has been more commonly observed in the cystic variety. In the present case also the tumour was partially cystic. Out of the 8 cases of malignant Brenner tumour reported by Ovarian Tumour Registry in 4 the anaplastic change originated in epithelial wing. Similar findings have been observed in present case.

Most of these tumours occur in menopausal age group (Berge and Borglin, 1967; Jorgensen *et al*, 1970; Masani, 1971). The present case is also a postmenopausal woman of 55 years of age.

MacKinlay, 1956 has denied the possibility that Brenner tumour may produce hormones. The indirect evidence of production includes frequent occurrence of endometrial changes usually ascribed to excessive oestrogen stimulation in patients with Brenner tumour.

Ming and Goldman (1962) described 69 cases in which 32 had endometroid hyperplasia, 14 had polyps and 6 had carcinoma. Jonas (1959) described a 84 year old woman who had Brenner tumour with cystic hyperplasia of endometrium as has also been seen in the

present case the endometrium has also showed polypoidal appearance.

Summary

1. A case of bilateral Malignant Brenner tumour of ovary in a post menopausal woman is reported.

2. Polypoidal changes in the endometrium along with evidence of cystic glandular hyperplasia indirectly suggest that tumour had functional activity with production of excessive oestrogen hormone.

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See Figs. on Art Paper VII