

BRENNER TUMOUR OF THE OVARY

(Report of a Case)

by

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A rare fibroepithelial tumour occurring in ovary was first described by Brenner in 1907. He thought it to arise from the granulosa cells and designated as oophoroma folliculare. It was Meyer in 1932 who described clearly its pathologic characteristics and its histogenesis. Subsequently, not a few cases have been reported in the literature covering different aspects of this lesion. Novak has estimated the total number of cases reported in the literature to be about 500 by 1967. At the Mayo clinic the incidence of Brenner tumour has been reported as 1.7% (Hertig). The tumour may be unilateral or bilateral, symptomatic or asymptomatic, and mostly nonfunctional. Cases have been reported by Mackinley (1956), Sirsat (1956), Chunming (1962) and Banerjee (1965). The size of the tumour may vary between a few millimeters to many cms. The largest reported in the literature weighed 19 pounds as reported by Averbach. The commonest age of occurrence is above the age

of 50 years with a range from 25 to 71 years; Tyagi *et al* (1967) have reported a case in a girl aged 13 years. Among the reviews and case reports in the literature, Jorgensen *et al* (1970) 53 cases, Woodruff and Acosta (1962) 90 cases, Ehrlich and Roth (1971) 57 cases, Patil (1967) 2 cases, Mutatkar (1970) 1 case, Lanchlan (1966) 13 cases are noteworthy.

A case is reported here in view of its relative rarity, abnormally large size of the growth and the young age of the patient.

Case Report

Smt. K. a Hindu female aged 30 years was admitted in the Government Maternity Hospital, Hanamkonda, for a swelling in the abdomen since one year which was gradually growing in size. There was no history of pain, fever or any menstrual disturbance.

Personal History: Married, with 4 children, last child 8 years old. All the children are healthy. Menstrual cycles 4/30 L.M.P. seven days back. Habits, micturition and bowels are regular.

On examination: Moderately built young woman, slightly anaemic. There was no oedema, lymphadenopathy or signs of hirsutism.

Local Examination: A huge swelling in the abdomen extending upto xiphisternum, firm, not tender, slightly mobile in the transverse direction.

Vaginal Examination: Uterus retroverted, pushed backwards towards the right

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fornix. A mass on the right side extending in the abdomen.

Laboratory Investigations: Urine, Blood. Stools—not contributory.

Operation: Under spinal Anaesthesia a vertical mid line incision was made. On opening, a huge multilobular, thick walled, well capsulated tumour was found arising from the right ovary. Left ovary was slightly enlarged and contained multiple small cysts of two to three cm. The tumour was removed with the right fallopian tube. Postoperatively the patient made uneventful recovery and was discharged after 10 days.

Gross Appearance: A soft tissue mass 31 x 25 x 20 cms. weighing (9500 grams), surface lobulated. At one end the fallopian tube is found. It is woody hard in consistency, cut surface lobulated, greyish white, whorled appearance with tiny cysts. Haemorrhage, necrosis or large cysts not seen (Fig. 1).

Microscopic Examination: Study of multiple sections from different areas of the tumour show loss of ovarian structure and replacement by neoplastic tissue. The tissue is composed of dense aggregates, bundles and sheets of spindle shaped cells with fusiform nuclei, coursing in various directions and collagenisation. Interspersed in this connective tissue, islands of squamous like epithelial cells in the form of nests are seen (Fig. 2). These cells are oblong or polygonal with scanty eosinophilic cytoplasm. Some of the clusters show a cystic change in the centre with a round, eosinophilic body resembling an ovum. In higher magnification the cells show characteristic grooved appearance. (Coffee bean nuclei). The cells do not show any features of malignancy. The cystic areas do not show any lining epithelium and are due to degeneration.

Comments

During the last 6 years, 196 cases of ovarian tumours have been reported in this department of which this is the only case of Brenner tumour.

The patient was a young woman of 30 years without any hormonal or functional

disturbance, the only complaint being mass in the abdomen.

The tumour weighed 9500 grams measuring 31 x 25 x 20 cms, probably the largest ever reported. On pathological examination it was mostly composed of fibrous tissue with islands of epithelial cells, small cysts and round structures simulating ovum. On higher magnification the individual cell nuclei displayed the groove resembling a coffee bean. The patient is quite healthy after 10 months and is being followed.

Summary

A case of Brenner tumour in a young woman of 30 years is reported, the tumour weighed 9500 grams and has all the features of benign Brenner tumour.

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See Figs. on Art Paper III