

STRUMA OVARIII

(A Case Report)

BY

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Struma ovarii is a benign tumour of the ovary composed entirely or predominantly of thyroid tissue. Boettlin in 1889 was the first to observe thyroid tissue in ovarian dermoid. Wilms, Merttens and Kroemer published reports of similar cases. Gottschalk in 1899 described an ovarian tumour consisting entirely of thyroid tissue and was of the opinion that the tumour was derived from the ovarian follicle and designated the tumour as "folliculoma malignum". Kretschmar in 1904 identified the thyroid tissue and observed that it was a metastasis from the thyroid gland. Pick, in 1902, assigned the name "strumoides Throideale Ovarii" and recorded that it is a one-sided development of a teratoma wherein the thyroid tissue had overgrown all other elements, sometimes completely masking the original structure of the tissue. So far only 160 cases have been recorded in the literature. It forms 2-8 per cent of all teratoid tumours of the ovary and is usually found during the active period of sexual life.

Case reports from India are rare. Trivedi and De in 1944 recorded a case of dermoid of the ovary wherein thyroid tissue was seen in a female aged 25 years. Jacob, from Madras

in 1949, recorded a case of teratoma with predominant amount of thyroid tissue in a female aged 45 years. She never had any symptoms of thyrotoxicosis and had attained menopause. On review of the records of the Pathology Department, Andhra Medical College, no single case has been observed so far. The following case of struma ovarii is recorded for its rarity.

Case Report

Female R., aged 50 years, was admitted on 12-8-1954 in gynaecological wards of King George Hospital, Visakhapatnam, for a mass in the abdomen on the right side and pain in the lower abdomen of one and half years' duration. She also complained of passing small quantities of urine with difficulty.

Gynaecological history of the patient did not reveal any abnormality except that she was married 20 years ago and had two children. Her menstrual periods were regular, occurring once in 30 days lasting for 3-4 days. No history of abortions.

The present complaint started 1½ years ago with a small lump on the right side of the abdomen and gradually increased to the present

size. Of late the tumour had been growing rapidly and was painful.

On examination of the patient a mass of the size of a coconut was palpable over the right side of the abdomen freely moveable and nodular. It was continuous with the ovary on that side and was dull to percussion. There was no evidence of free fluid in the abdomen. No evidence of enlargement of thyroid and no signs and symptoms of thyrotoxicosis.

On vaginal examination the cervix was placed posteriorly and a nodular mass, continuous with the abdominal mass, was felt.

Investigations

Blood pressure 120/80 m.m. of Hg ; Hb. 80% ; Blood Urea 17 mg. per cent ; Basal metabolic rate was not done. A pre-operative diagnosis of malignant ovarian tumour was made.

On 21-8-54 abdomen was opened under spinal anaesthesia by a median subumbilical incision. Nodular tumour of the right ovary, well encapsulated was seen. There were no adhesions. The left ovary was free. A total hysterectomy and bilateral salpingo-oophorectomy, along with the tumour mass, was done.

The patient had an uneventful postoperative period and was discharged from the hospital cured on 7-9-1954.

Gross-specimen

The specimen consisted of uterus, both tubes with the left ovary. The right ovary was completely replaced by large irregular nodular bluish oval tumour of the size of 6" x 3". Nodules of varying sizes seen over

the surface. It was very well encapsulated, solid and firm in consistency. The tumour weighed 1080 gms. Cut section of the tumour revealed typical thyroid tissue containing areas of colloid material separated by bands of connective tissue presenting a colourful picture. (Fig. 1). There were no areas of

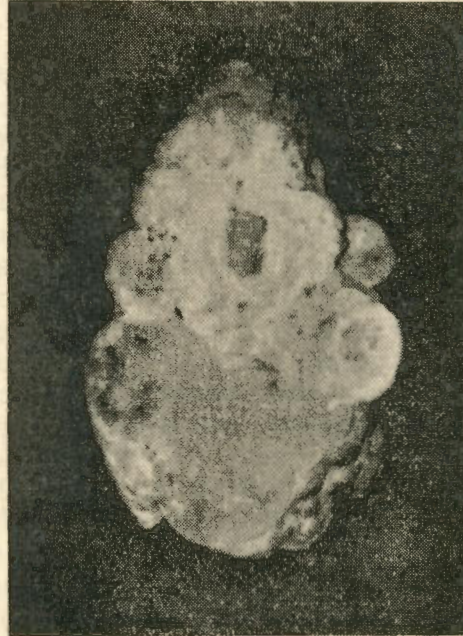


Fig. 1
Photograph showing cut surface of the ovarian tumour with areas of colloid material surrounded by connective tissue. The nodularity of the tumour is seen very clearly.

degeneration and calcification.

Uterus, both tubes and left ovary looked normal.

Histology

Several sections from multiple paraffin blocks stained with haematoxylin and eosin were studied. Almost the entire tumour was studied under the microscope. The uterus

both tubes and left ovary were studied histologically as a routine and did not reveal any change. The sections studied from the tumour were identical with thyroid tissue with intervening bands of fibrous tissue. Acini of varying sizes lined by single layer of flattened cuboidal epithelial cells with fairly sharp borders were seen. Lumina of these acini were filled with dense pink staining colloid. (Fig. 2). Active or hyperplastic stage was not seen.

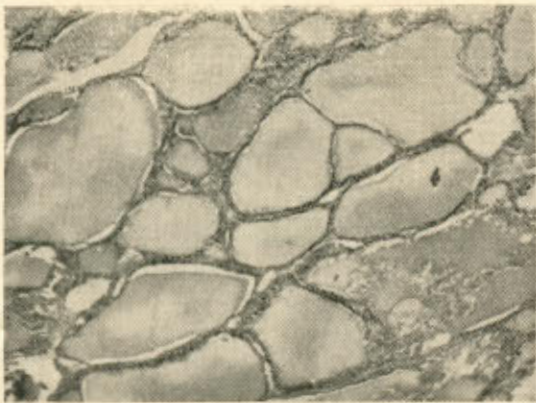


Fig. 2

Photomicrograph illustrates acini of varying sizes lined by single layer of flattened cuboidal epithelium. The acini are distended with colloid. (H & E x 100).

Morbid Anatomical Diagnosis "Struma Ovarii".

Comment

The increasing size, nodularity of the tumour associated with pain, made the clinician think of a malignant ovarian tumour. It is really very difficult to diagnose this condition pro-operatively unless there are associated clinical and laboratory evidences of thyroid enlargement. Even then in only 4% of all cases of struma ovarii there is

concomitant thyroid enlargement. Fifty per cent of the ovarian dermoids and teratomas contain some amount of thyroid tissue. But pure thyroid tumour of the ovary completely masking the structure of the ovary as in the case recorded is very rare and Sailor estimated 20 per cent of these tumours to be of pure thyroid in nature. Tumours containing pure thyroid tissue are usually small but occasionally these tumours have reached enormous size and this is very well exemplified in the case recorded. These tumours are mostly benign and prognosis is excellent after removal.

Summary

1. Literature on struma ovarii is briefly reviewed.
2. A case of ovarian tumour consisting almost entirely of thyroid tissue is recorded.
3. Stress is laid on the rarity of these tumours.

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