STRUMA OVARY

(A Case Report)

by

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Introduction

Struma Ovarii is one of the rare tumours of the Ovary. To call a tumour, a struma Ovarii, the whole tumour or the majority of tumour mass must be made of thyroid tissue. Islands of thyroid tissue in a teratoma is not enough to call a tumour as struma ovarii. The first published cases of struma ovarii were by van Kahlden in 1895 and Gottschalle in 1899. Two hundred and forty cases of struma ovarii are reported upto 1961 (Marcus and Marcus, (1961).

There were controversies about the origin of the tumour. Pick was the first one to conclude the origin of the tumour as teratomatous in the year 1901. It is shown that about 12% of these tumours are functioning, producing toxic symptoms which are relieved after removal. One such case is being presented. Occasionally the tumour may become malignant but malignant change in the thyroid focus of a cystic teratoma is more common.

CASE REPORT

A 40 years old, para 4, was admitted in Kilpauk Medical College Hospital, Madras on 17th April 1977 with history of 6 months' amenorrhoea and bleeding per vaginam for 4 days. Menstrual cycles for one year prior to admission were regular but scanty and associated with premenstrual pain in the right iliac fossa. Before that, cycles were 5/30 regular. moderate and painless. Patient gave a history of sweating and palpitation on and off since one year.

On general examination patient was moderately built; pulse 72/mt regular, blood pressure 110/70 mm. of Hg. Cardiovascular and respiratory systems were clinically normal. Abdominal palpation revealed a tumour which was just palpable in the suprapubic area. Vaginal examination showed uterus anteverted, bulky and an irregular swelling in the left fornix felt separate from the uterus and not freely mobile.

Routine investigations did not show anything abnormal. Laparotomy was decided with the diagnosis of ovarian tumour. On opening the abdomen uterus was found to be enlarged to 8 weeks size. There was an irregular ovarian tumour on the left side about 8 cms x 6 cms. It was mainly cystic with some solid areas. It was adherent to the bowels. There was a small ovarian cyst on the right side 4 cms x 4 cms. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done.

Pathological Findings

Left ovary showed an encapsulated ovarian tumour mass on the left side about 8 cm x 6 cm partly solid, partly cystic and showing brownish or yellowish brown translucent colloid like material (Fig. 1). Histologically the tumour mass was made up entirely of thyroid acini or follicles of varying sizes, lined by cuboidal or flattened epithelium and distended with colloid.

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The histological picture was reminiscent of the appearance of the thyroid in simple goitre and follicular simple adenomas (Fig. 2). There was no histological evidence of toxicity or of malignancy. There were no other teratomatous tissue in the lesion. Endometrium showed cystoglandular hyperplasia. This lesion could be an independent lesion or a lesion interrelated to the ovarian lesion. The patient was discharged after 12 days and when she was seen 1 month after operation, she was free from any complaints.

Discussion

The thyroid tissue in struma ovarii is chemically, pharmacologically, biologically and microscopically identical to the cervical thyroid tissue. The presence of thyroid tissue in a dermoid cyst is not uncommon. Blackwell *et al* (1946) have shown thyroid tissue in 13% of the 225 dermoid cysts they have studied, whereas tumours made of mainly thyroid tissue are uncommon. Upto 1966, there were 276 proved cases of struma ovarii in world literature (Woodrufl *et al*, 1966). A few cases have been reported in Indian Literature (Chaltoraj, 1963; Pande and Rajwanshi, 1973; Talib and Sultana, 1975). In the case presented, the tumour was made up entirely of thyroid tissue and so belongs to the category of true struma ovarii.

The tumour can occur at any age but the maximum incidence is in the late reproductive age group. Smith (1946) and Kempen (1970) have put the average age in their series as 42 years and 48 years respectively. The size of the tumour varies but the common one is between 6 to 8 cms. Usually struma ovarii is unilateral. Smith (1946) found that only in 4% of cases the tumour bilateral.

Like the normally placed thyroid tissue the ovarian thyroid may also be subjected to the same physiological and pathological variations. Hence some cases are associated with thyrotoxic manifestations. Cases are recorded of thyrotoxicosis being accompanied by struma ovarii and enlargement of the normally placed thyroid gland. (Gusberg and Danforth, 1944). The symptoms regress completely after the removal of the ovarian tumour. In some cases the relationship between the symptoms and the tumour were not recognised until after the disappearance of symptoms following surgery (McGarrity and Dodson, 1948). Most of the pure struma ovarii run a benign clinical course —a few cases of metastasizing variants are however recorded (Woodruff and Markley, 1957). Rarely Meig's syndrome may be associated with struma ovarii (Baskin and Counsellor, 1951). In the diagnosis of the condition—Radio-active Iodine uptake studies help since the ovarian thyroid tissue behaves almost like the normally placed thyroid.

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See Figs. on Art Paper VII