

STRUMA OVARIII

(A Case Report)

by

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Struma ovarii is a rare ovarian tumor consisting of thyroid gland tissue. It was Pick in 1901 who first recognised the thyroid tissue in such tumor. Subsequently it was observed by many that adult teratomas contain thyroid tissue in 12 to 15 per cent of cases. Such an association does not justify diagnosis of struma ovarii. It has been suggested that struma ovarii should be diagnosed only when the thyroid tissue is preponderant or if there is evidence of either neoplasia or hormonal function in the evaluation of the individual case. Tumors consisting entirely of thyroid tissue form less than 20 per cent of recorded examples of struma ovarii (Smith, 1946). Thus struma ovarii is composed of true thyroid tissue resulting from unilateral development of an ovarian teratoma.

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Accepted for publication on 12-1-1979.

CASE REPORT

Mrs. T. D., aged 22 years, was admitted in S.S.K.M. Hospital, Calcutta on 2-3-77 for a lump in the lower abdomen and recurrent lower abdominal pain for last 2 years and scanty menstruation for 1 year.

Menstrual History: Patient attained menarche at the age of 14. Her menstrual cycles were regular with scanty flow of 2 days duration. Last menstrual period was on 20-2-77.

Obstetric History: Patient had 1 spontaneous abortion at about 12 weeks gestation 3 years back.

General Examination: Patient was moderately built with average nutritional status. Pulse 80 per min. BP 116/70 mm of Hg. Respiratory and cardiovascular systems revealed no abnormality.

Abdominal Examination: An oval shaped lower abdominal swelling 7" x 4" size was palpated which was lobulated, firm and slightly tender. It could be moved side to side and could be lifted up from the pelvis. There was no free fluid in the peritoneal cavity.

Vaginal Examination: The uterus was retroverted mobile and normal in size. The mass felt per abdomen was also felt on vaginal examination mostly through the left fornix. Pouch of Douglas was free.

Laboratory Investigations: Hb—11.5 gm per cent. W.B.C. 6500 per cu. mm of blood. Blood sugar (post prandial) 110 mg. per cent. Stool and urine—nothing suggestive.

Operation Notes:

On laparotomy a left sided ovarian tumor (6" x 4") was detected. The tumor was free from any adhesions and well capsulated. There

was no free fluid in peritoneal cavity. Left sided ovariectomy was done. Other ovary was normal in size and shape. The mass was partly solid and partly cystic. The solid areas were filled with greyish Brown masses and cystic areas contained clear fluid. The postoperative period was uneventful.

Histopathological Report:

Section from ovarian tumor show recognizable thyroid tissue. The acinar structure are variable in size and contain colloid material. (Fig. 1).

Discussion

Although minute fragments are often found in solid or cystic teratomas, the name struma ovarii is usually reserved for those tumors in which significant amount of thyroid tissue is present. The thyroid tissue present in this neoplasm is chemically, pharmacologically, biologically and morphologically identical to cervical thyroid tissue. (Plant, 1933; Stanbury, 1965).

The average age group of such disease is from 35 years to 50 years with a peak at 40 years of age. According to Kempers *et al* (1970), the average age was 48 years with a range of 19 to 70 years, only 5 to 25 cases in their series were less than 40 years. The age of the patient reported in this paper was only 22 years. This age may be taken into consideration so far development of struma ovarii is concerned as dermoid and more complex teratomas are common in younger age group.

The tumour is generally unilateral. Presence of thyroid tissue in both ovaries were only in 4 per cent of 153 cases as noted by Smith (1946). There should not be any evidence of spread beyond ovary and struma ovarii is considered as benign, only 5 per cent of struma ovarii are said to be malignant. Metastases has occurred in 5 per cent of all recorded cases, ap-

proximately half of the metastases being benign and half malignant. The metastases are mostly confined to abdominal cavity. The patient may have no symptom excepting a mass in the pelvis or she may complain of pain in abdomen with evidence of free fluid in the peritoneal cavity. In rare occasion signs and symptoms of thyrotoxicosis may supervene. The signs and symptoms of thyrotoxicosis generally retrogresses after removal of struma ovarii. In some patients removal of ovarian struma resulted in enlargement of thyroid gland (Foulkes and Fraser, 1954; Woodruff and Markley, 1957).

So far the histogenesis of struma ovarii is concerned, its teratomatous nature is generally accepted. Majority of cases clearly originate in a benign cystic teratoma and a small portion is associated with mucinous cystadenoma of the ovary. As struma ovarii is found associated with pseudomucinous cystadenoma, there is now general agreement that it is composed of genuine thyroid tissue and represented unilateral development in a ovarian teratoma.

Summary

The case presented in this paper was a unilateral benign tumour of ovary, surprisingly proved as struma ovarii on histological examination.

Acknowledgement

We are grateful to Dr. K. P. Sengupta, Director, Head of the department of Pathology and surgeon Superintendent, S.S.K.M. Hospital, Calcutta for his kind premission to publish the case.

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See Fig. on Art Paper VII