

# Struma Ovarii - A Rare Ovarian Tumor

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## Abstract

Teratoma is a neoplasm of germ cell tumor arising along the line of migration of primordial germ cells. The size of the tumour reported in the literature is 3.5 cm to 12 cm. In this present case, the size was so big (18cm) that the patient presented as an huge abdominal mass. We report the case due to its rarity and big size.

## INTRODUCTION

Teratoma is a neoplasm of germ cell tumor arising along the line of migration of primordial germ cells. It is divided into three categories: mature, immature and nondermal. Monodermal teratomas are highly specialized variety including struma ovarii and carcinoid. The size of the tumour reported in the literature ranges from 3.5 cm to 12 cm<sup>1</sup>. We came across a case of struma ovarii which presented as a huge abdominal mass due to a very big size of 18 cm.

## CASE REPORT

A 60-year-old, postmenopausal lady, para 4, was admitted with complaint of progressively increasing lump in right lower abdomen for 3-4 years. When she first noticed the lump it was about lemon size and gradually increased to present size of about fetal head.

There was no history of loss of weight and appetite, fever and any urinary or bowel trouble. There was no history of palpitation, breathlessness, excessive heat intolerance and bleeding per vaginum. On general physical examination a firm mass of about 18x15cm size was palpable in suprapubic region with smooth margins, non tender, non pulsatile, mobile from side to side and lower limit was not reachable.

On local examination the cervix was flushed with vault. Vaginal examination revealed a firm, mobile, non tender, smooth surfaced mass of size 18x15cm in anterior fornix. The uterus was normal size.

Her baseline investigations were normal. On ultrasonography the uterus was normal in size and echotexture. The right ovary was replaced by a 18.5x14.7cm

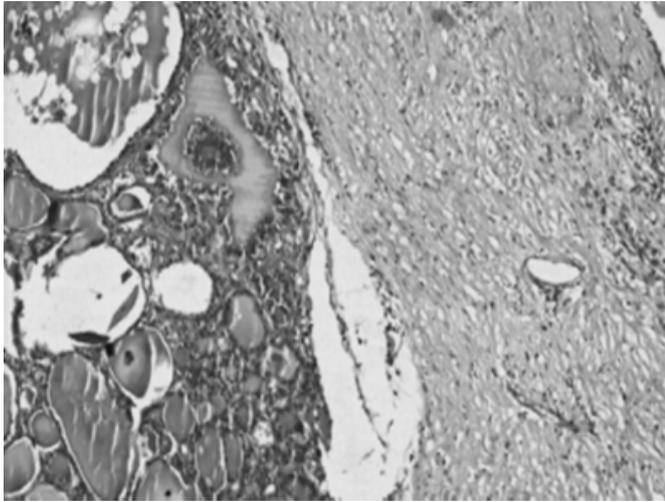
thin walled cystic lesion with fine internal echoes. Other abdominal organs were normal. X-ray chest was normal and CA-125 was 23.7 IU/ml.

Laparotomy was planned and there was a large multiloculated cyst of 18x15cm in right ovary containing dark colour fluid. There was no ascites and abdominal viscera were normal on palpation. Considering the age of the patient, total abdominal hysterectomy with bilateral salpingo oophorectomy and omental biopsy was done. Her postoperative period was uneventful.

On histopathology cyst showed thyroid follicles filled with colloid, with surrounding fibrous wall lined by cuboidal epithelium (Figure-1). Diagnosis of benign struma ovarii was made. The uterus showed atrophic endometrium with chronic cervicitis. Left ovary and both the fallopian tubes were unremarkable. Omental and peritoneal biopsy comprises of fibroadipose tissue revealing mild congestion only. Retrospective thyroid profile was done, which was in normal range.

**Figure 1**

Figure- I- Thyroid follicles of variable size with ovarian tissue at periphery (H E X100)



**DISCUSSION**

Struma ovarii was described by Von Kalden in 1895, Gottschalk in 1899 and Mayer in 1903<sup>2,3</sup>. It is a rare ovarian teratoid tumour. Thyroid element can be noted in almost 20% of the cases of demoid cyst, however the term ‘struma’ is used when the thyroid tissue constitutes more than 50% of the tumour<sup>4</sup>.

Because of its rarity, no clear racial predilection for struma ovarii has been determined. The peak age of incidence is in the fifth decade, a few cases have been reported in prepubertal girls and postmenopausal women. Usually patient presents with symptoms of pelvic mass, including pain, pressure and irregular menses. Only 8% of patients presents with clinical hyperthyroidism. Preoperative diagnosis is difficult because this rare tumour has no

differentiating sign or symptom.

Mostly it is unilateral, benign, and more common in right ovary, usually less than 10cm in size. The malignant struma ovarii is even more rare, and makes about 5% of all cases of struma ovarii<sup>5,6</sup>. In present case also the tumor was unilateral in right ovary. Ultrasound picture is not much different from mature cystic teratoma. Occasionally preoperative scintigraphy of the pelvis may be helpful in diagnosis<sup>7</sup>.

Surgery is mainstay of treatment. Definitive treatment depends upon the extent of preoperative disease and future child bearing wishes of the patient. Since most cases are unilateral and benign, simple oophorectomy is sufficient. If contralateral ovary is involved or if the patient has finished child bearing, total hysterectomy with bilateral salpingo-oophorectomy is appropriate.

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