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Case Report

A rare ovarian tumour, struma ovarii

Sindhura Inkollu*, Vandana Kanumury, Murmu Dasharatha, Padmaja Adusumilli

Department of Obstetrics and Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru, Andhra Pradesh, India

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***Correspondence:**
Dr. Sindhura Inkollu,
E-mail: dr.sindhu216@gmail.com

ABSTRACT

Struma ovarii is a rare entity, with about 200 reported cases in the medical literature. Struma ovarii is a specialized monodermal teratoma, predominantly composed of mature thyroid tissue. Only 5-8% has functional thyroid tissue. Because of rarity of the tumour, only a few reports with detailed data on thyroid function of the patient have been published. We report here such a case of benign struma ovarii in a 59 year old woman with normal thyroid function. A 59 year old postmenopausal woman was admitted because of an asymptomatic pelvic mass detected on routine pelvic examination. USG revealed a complex right ovarian mass. Patient underwent total hysterectomy with bilateral salphingo-oopherectomy. Histopathological examination revealed struma ovarii without malignancy. Her post-operative course was uneventful. Her thyroid hormone status was in normal range before and after the surgery. We seek to emphasize by this report that, inspite of its rarity, a differential diagnosis of struma ovarii should be included for an ovarian mass regardless of the thyroid hormonal status of the patient, as simple surgery cures the disease in most of the cases even in postmenopausal women without any complications.

Keywords: Struma ovarii, Ovarian tumour, Postmenopausal women

INTRODUCTION

Struma ovarii is a rare entity, with about 200 reported cases in the medical literature, since the first detected case in 1889 by Boettlin. It is a characterized by the presence of thyroid tissue, which comprises more than 50% of the overall mass. Most struma ovarii are benign, with only 5-10% being malignant. Only 5-8% has functional thyroid tissue.[1] Because of rarity of the tumour, only a few reports with detailed data on thyroid function of the patient have been published. We report here such a case of benign struma ovarii in a 59 year old postmenopausal woman with normal thyroid function.

CASE REPORT

Mrs. X, a 59 year old postmenopausal woman was admitted because of an asymptomatic pelvic mass detected on routine pelvic examination. She reached menopause 10 years back, her previous cycles were normal. She had three normal vaginal deliveries. Her past and family histories were all unremarkable. On examination, general condition was normal, vital parameters were within normal limits. There was no thyromegaly and no palpable lymph nodes. Her abdominal examination was unremarkable. On bimanual examination, uterus was bulky, and a mass of 5×5 cms with smooth, regular margin, cystic in consistency which was freely mobile, was felt in the right fornix. Per rectal examination- rectal mucosa was free. Laboratory blood analyses including thyroid hormones were in normal range. Ultrasonography showed a right adnexal mass of 6.2×5.5cms with hyper echoic solid and with cystic components & Uterus of size 7.0× 3.5cms with posterior myometrial fibroid of size 2.0×1.6cms, left adnexa

normal. Her CA-125 was 20.08 U/ml. Risk malignancy index score was 60.

Case was posted for laparotomy. Intraoperative findings revealed a right ovarian mass of size 6×6 cms with smooth surface, with cystic and solid areas. Uterus was bulky with 3×3 cms intramural fibroid. Other ovary was normal, no ascites, omentum appeared normal, hepatic surface was smooth. Total abdominal hysterectomy with bilateral salpingo-oophorectomy done. Postoperative period was uneventful. Histopathological analysis showed struma ovarii with no features of malignancy (Figure 1). Postoperative thyroid function tests were in normal range. Follow up period for 6 months was uneventful.

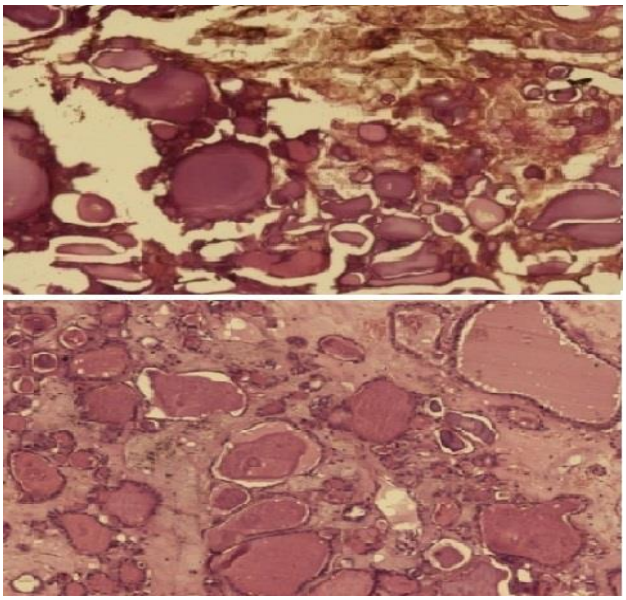

Figure 1: Struma ovarii (H & E) showing thyroid follicles of varying size.

DISCUSSION

Struma ovarii is a rare type of highly specialised monodermal teratoma with predominant thyroid tissue, which comprises more than 50% of the overall mass. It constitutes 1% of all ovarian tumours and 2.7% of all dermoid tumours.[2] Malignant transformation is infrequent, only about 5% being malignant and among them only 5-6% shows metastases.[3] It can present at any age, but mostly occurs in reproductive age group. This tumour generally presents with nonspecific symptoms that are similar with those of other ovarian tumours, and sometimes may mimic ovarian malignancy. Only 5-8% has functional thyroid tissue and classical symptoms of hyperthyroidism may be evident. The ultrasound features of struma ovarii are also nonspecific, predominantly solid mass may be seen and also difficult to distinguish between struma ovarii and dermoid cysts on the basis of their sonographic appearance.[4] Only preoperative scintigraphy with radioactive iodine (I 131) of pelvis could show active thyroid tissue.[5] Diagnosis confirmed by histopathological examination, which typically consists of normal-appearing thyroidal tissue composed of thyroid follicles of various sizes. In difficult cases, immunohistochemical stains for thyroid transcription factor and/or thyroglobulin will confirm the diagnosis of struma ovarii.[6]

The widely accepted tumour marker of ovarian cancers, CA-125, may increase, but is of little clinical value in these patients.[7] Struma ovarii may be associated with ascites and pleural effusion, known as pseudo - Meigs syndrome and they usually disappear after surgery.[8] Because of the paucity of tumour, there is no clarity regarding the proper management of these patients, however, surgical management is the first choice to prevent malignant alteration of this monodermal teratoma.[9-11] Prognosis is good after treatment. Careful postoperative monitoring for any hypothyroidism signs is required, as it may be the only functional thyroid tissue in the patient.[12]

CONCLUSION

Struma ovarii is a rare type of teratomas, difficult to diagnose on the basis of clinical manifestations or imaging studies, without histopathological examination. We seek to emphasize by this report that, in spite of its rarity, a differential diagnosis of struma ovarii should be included for an ovarian mass, regardless of the thyroid hormonal status of the patient, as simple surgery cures the disease in most of the cases even in postmenopausal women, without any complications.

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