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Struma Ovarii in a Post Menopausal Woman Presenting With Post Menopausal Bleeding

Sunil K. Juneja[1], Pooja Tandon[1], Devinder S. Sandhu[2] and Pavneet Kaur[3]

[1]Department of Obstetrics & Gynaecology, DMC& H, Ludhiana
[2]Department of Oncology, DMC& H, Ludhiana
[3]Department of Pathology, DMC& H, Ludhiana

Abstract

Struma ovarii is a rare ovarian tumor characterized by the presence of mature thyroid tissue. Struma ovarii of the ovary constitutes about 1% of all ovarian tumors. Approximately 15% of ovarian teratomas contain a small, non-significant focus of thyroid tissue, and 0.8-3% are characterized by the presence of functional thyroid tissue or thyroid tissue occupying most of the mass, classified as struma ovarii [1]. Its most important complications, although rare, are malignant transformation and thyrotoxicosis. The symptoms of struma ovarii are similar to other ovarian tumors and are nonspecific in nature. It is difficult to diagnose on the basis of clinical manifestations or imaging studies as presenting clinical features are widely diverse. Pre-operative radiological imaging studies such as ultrasonography was able to diagnose struma ovarii in only 12% patients. We report a case of 56 yrs old postmenopausal female presenting with post menopausal bleeding with heaviness in lower abdomen, was diagnosed as having left ovarian mass. She underwent surgery. Histopathology was consistent with struma ovarii with negative peritoneal and omental biopsy. Post operative period was uneventful and patient is on regular follow up.

Keywords: Struma ovarii, mature thyroid tissue, ovarian teratoma, malignant struma ovarii

*Corresponding author:
Dr. Sunil K. Juneja
Associate Professor
Department of OBGYN
Dayanand Medical College & Hospital
Ludhiana,Punjab
Mobile No. : 9814475079
E mail : drsuniljuneja@yahoo.co.in

Introduction

Struma ovarii is a highly specialized form of ovarian teratoma, characterized by the presence-entirely or predominantly-of mature thyroid tissue. Struma ovarii comprises 0.8-3% of all dermoid tumors of the ovary, and very rarely presents in a malignant form, occurring in 0.3% to 5% of all struma ovarii tumors.

Case

Mrs. G.K., 56 yrs old woman, $P_2L_2A_1$, Post menopausal (2yrs) presented with post menopausal bleeding for 3 days, heaviness in lower abdomen with dysuria off & on for 3 days. There was no history of cough, expectoration, chest pain, palpitations, breathlessness, headache, altered sensorium or loss of consciousness, had no significant past medical history, had undergone open cholecystectomy 1 year back. Her vitals, GPE, higher mental functions, cardio respiratory and abdominal examination were normal. Bimanual vaginal examination revealed a cystic pelvic mass about 7x 5x5 cms in the left fornix, uterus was multiparous size with irregular contour. USG confirmed the clinical findings. CECT whole abdomen showed a large complex predominantly solid left ovarian mass lesion with multi-septate cystic and large soft tissue component and diffusely thickened endometrium with fluid - fluid level within the endometrial cavity. No enlarged pelvic/ paraaortic lymphnodes were found. Her haematological, thyroid profile and urine investigations were within normal limits. CA 125 was 8.68 IU/ml, < HCG was < 2.00miu/ml, AFP was 1.02 iu/ml and LDH was 539 IU/L. She underwent exploratory laparotomy with total abdominal hysterectomy with left ovariotomy, salpingectomy, right salpingo-oopherectomy and omentectomy. Histopathology was consistent with struma ovarii with negative peritoneal and omental biopsy, endometrium showed simple hyperplasia without atypia and

myometrium had intramural leiomyomas and adenomyosis [Fig.1 and 2]. Post operative period was uneventful and patient is on regular follow up and is doing well.

Discussion

Struma ovarii was first described in 1899 by Boettlin [2]. Struma ovarii is a rare ovarian tumor characterized by the presence of mature thyroid tissue but to qualify as a struma ovarii tumor the thyroid proportion must comprise more than 50% of the overall tissue [3]. Typically, struma ovarii occurs as a part of benign cystic teratomas, but may occasionally be encountered with other ovarian tumors, either germinal as desmoid cysts and carcinoid tumors or nongerminal as serous or mucinous cystoadenomas and Brenner tumors [4].

Clinical symptoms that may manifest due to the presence of a struma ovarii are lower abdominal pain, palpable lower abdominal mass, abnormal vaginal bleeding, ascites, hydrothorax, elevated thyroid function, and rarely thyroid tumors [5, 6] Previous reports have shown that patients with struma ovarii are largely without symptoms, or are accompanied by non-specific symptoms that are similar to other ovarian neoplasms [7]. Our patient also presented with post menopausal bleeding with vague abdominal symptoms. It is difficult to diagnose on the basis of clinical manifestations or imaging studies as the presenting clinical features are widely diverse. Pre-operative radiological imaging studies such as ultrasonography was able to diagnose struma ovarii in only about 12% patients [8]. The diagnosis of thyroid cancer in an ovarian teratoma is difficult, and parallels the difficulty in distinguishing benign thyroid microfollicular adenomas from differentiated follicular thyroid cancer. The treatment of benign struma ovarii is surgical resection only and even if secondary conditions such as thyroid hyperfunction, ascites, or hydrothorax are present, these usually regress spontaneously upon surgical removal of the primary tumor. The cases of malignant struma ovarii may need adjuvant treatment, but recurrence is uncommon.

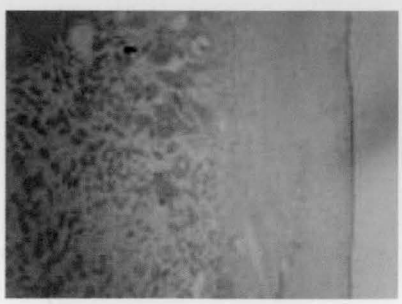

Figure 1. Respiratory epithelium along with thyroid follicles

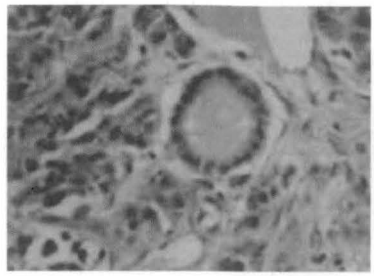

Figure 2.
Thyroid follicle under high power field

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