DOI: 10.7860/JCDR/2015/11907.5780

Ovarian Struma - Report of A Rare Case

E SHANTHI[1], PARIMALA[2], R VIMAL CHANDER[3], JAYASHREE[4], SONTI SULOCHANA[5]

Keywords: Monodermal, Struma Ovarii, Teratoma, Thyroid

A 34-year-old primipara with no live child came to the gynecology department with complaints of increased and prolonged menstrual bleeding and lower abdominal pain for three months. Her previous menstrual cycles were normal. She was married for 15 y. She was para one. It was an intrauterine death at eight months of pregnancy delivered vaginally 14 y ago. Her medical and surgical history was not significant. No history of malignancy in family.

On general examination, her vitals were stable. There was no evidence of hyperthyroidism. Her systemic examination was normal. Examination of abdomen revealed no mass or ascites. Cervix was normal on speculum examination. On bimanual examination, a mobile, non-tender cystic mass measuring approximately 10x8 cm was palpable in the right and anterior fornix. Uterus was normal, left fornix felt free. Rectal examination confirmed above findings. Ultrasonogram of abdomen and pelvis showed a right adnexal cyst measuring 7x8x6.2 cm with multiple septations. CA-125 levels were within normal limits (7.5 U/ml). Thyroid function tests were within normal limits.

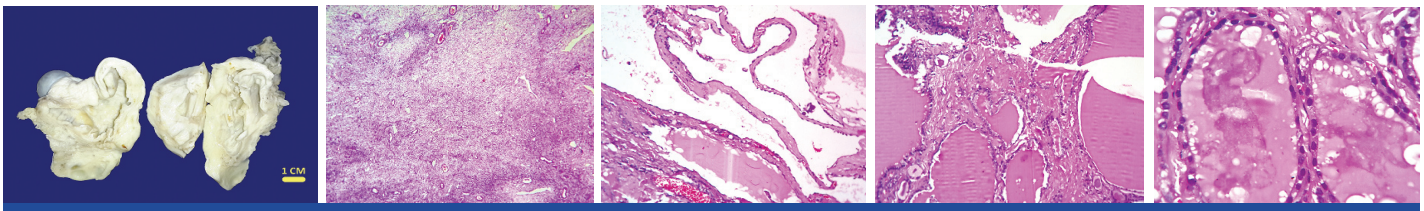
Exploratory laparotomy was done. Peroperatively, a multicystic mass of size 8x7x8 cm consisting of right tube and ovary was seen in the right adnexa. Uterus and left adnexa were normal. There was no ascites and no omental adhesions. As she was anxious to conceive, only right salphingo-ophorectomy was done. Dye test showed patent left fallopian tube. Postoperative period was uneventful.

On gross examination, ovarian cyst measured 8x5x3 cm. External surface was bosselated and cut section revealed a multiloculated cyst with one solid area measuring 3x2x1 cm. Attached fimbrial end of the right fallopian tube measured 3 cm in length [Table/Fig-1].

Microscopic examination showed ovarian parenchyma with cystic follicles [Table/Fig-2] and a cyst lined by a single layer of cuboidal to columnar epithelium [Table/Fig-3]. The wall of the cyst showed multiple colloid-filled thyroid follicles of varying sizes lined by a single layer of cuboidal epithelium. Sections from the right fallopian tube showed normal morphology. [Table/Fig-4,5]. A diagnosis of Benign struma ovarii - cystic variant was then made.

Struma ovarii is an uncommon gynecological tumour accounting for 1% of all ovarian tumours and 3 to 5% of all dermoid tumours of ovary [1-3]. The diagnosis rests on histopathological examination of the tissue which shows thyroid follicles filled with eosinophilic colloid. Rarely, degenerative changes such as calcification, fibrosis or hemosiderophages may be seen [4].

Surgical management is the treatment of choice for struma ovarii. For women desiring fertility, simple ovarian cystectomy or salphingo-oopherectomy seems to be optimal [4,5]. In this case, since she was young with no live child and clinically appeared benign, only right salphingo-oopherectomy was done. For benign disease, standard surgical follow up is sufficient and the prognosis is excellent [6].



[Table/Fig-1]: Gross appearance **[Table/Fig-2]:** Ovarian cyst wall showing ovarian parenchyma (H and E x40) **[Table/Fig-3]:** Areas showing cyst wall lined by a single layer of cuboidal to columnar epithelium. (H and E x100) **[Table/Fig-4]:** The wall of the cyst shows multiple colloid-filled thyroid follicles of varying sizes (H and E x100)
[Table/Fig-5]: Thyroid follicles lined by a single layer of cuboidal epithelium enclosing colloid (H and E x400)

REFERENCES

[1] Hemanth Deshpande, Nilesh Balkawade, Charusheela Gore, Anjali Deshpande. Struma ovarii: A rare case report. *Int J Pharm Biomed Sci*. 2012;3(4):152-54.
[2] Nahid Mostaghel, Anahita Enzevaei, Khandan Zare, Masoome Fallahian. Struma ovarii associated with Pseudo-meig's syndrome and high serum level of CA125; a case report. *Journal of Ovarian Research*. 2012;5:10.
[3] Nujen Colak Bozkurt, Basak Karbek, Evrim Cakir Ozkaya, Erman Cakal, Tunkcay Delibasi. Struma ovarii presenting with Hashimoto's thyroiditis: a case report. *Journal of Medical Case Reports*. 2011;5:572.
[4] Wang Y, Pan L, Huang H, Shen K, Wu M, Lang J. Clinical study on 68 cases with struma ovarii. *Zhonghua Fu ChanKe Za Zhi*. 2014;49(6):451-54.
[5] Seung-Chul Yoo, Ki-Hong Chang, Mi-Ok Lyu, Suk-Joon Chang, Hee-Sug Ryu, Haeng-Soo Kim. Clinical characteristics of struma ovarii. *J Gynecol Oncol*. 2008;19(2):135-38.
[6] Kondi-Pafiti A, Mavrigiannaki P, Grigoriadis Ch, Kontogianni-Katsarou K, Mellou A, Kleanthis CK, Liapis A. Monodermal teratomas (struma ovarii). Clinicopathological characteristics of 11 cases and literature review. *Eur J Gynaecol Oncol*. 2011;32(6):657-59.

PARTICULARS OF CONTRIBUTORS:
1. Assistant Professor, Department of Obstetrics and Gynecology, Saveetha Medical College and Hospital, Chennai, India.
2. Associate Professor, Department of Obstetrics and Gynecology, Saveetha Medical College and Hospital, Chennai, India.
3. Assistant Professor, Department of Pathology, Saveetha Medical College and Hospital, Chennai, India.
4. Professor, Department of Obstetrics and Gynecology, Saveetha Medical College and Hospital, Chennai, India.
5. Associate Professor, Department of Pathology, Affiliation: Saveetha Medical College and Hospital, Chennai, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. E. Shanthi,
No 16/10, Vellalar street, 4th lane (Kamaraj street), Ayanavaram, Chennai, Tamil Nadu, 600023, India.
E-mail : dreshanthi@gmail.com

FINANCIAL OR OTHER COMPETING INTERESTS: None.

Date of Submission: **Oct 31, 2014**
Date of Peer Review: **Feb 06, 2015**
Date of Acceptance: **Feb 11, 2015**
Date of Publishing: **Apr 01, 2015**