

## CASE REPORT OF A MONODERMAL MATURE TERATOMA - STRUMA OVARIi IN A 43-YEARS OLD WOMAN

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**ABSTRACT.** Since its first description in 1895 by Von Kalden, Gottschalk in 1899 and Mayer in 1903, only 150 cases of struma ovarii were reported in the medical literature. Its account for 1% of all ovarian tumors, less than 5% of mature teratoma and most are benign, only 5 to 10% are malignant. We report a case of unilateral monodermal mature teratoma, struma ovarii type, in a 43-years old patient with benign ascites. Total hysterectomy with bilateral oophoro-salpingectomy was preformed. Microscopy showed in right ovary – monodermal mature teratoma, struma ovarii type, ascites liquid without atypical cells. No symptoms of hyperthyroidism were observed, including the post-operative period. Struma ovarii is a rare type of teratomas, difficult to identify without histopathological examination. Surgery is the only treatment because can cause symptoms of pelvic mass and compression, also malignant alteration is possible.

**KEYWORDS:** struma ovarii, mature teratoma, ascites, ovarian tumor

### INTRODUCTION

Since its first description in 1895 by Von Kalden, Gottschalk in 1899 and Mayer in 1903 (2,3), only 150 cases of struma ovarii were reported in the medical literature. Its account for 1% of all ovarian tumors, less than 5% of mature teratoma and most are benign, only 5 to 10% are malignant (1,4).

It is a rare entity characterized by the presence of thyroid tissue in an ovarian tumor, more than 50% of overall mass. The diagnosis of struma ovarii is usually made after surgical resection of the pelvic tumor, on histological exam. Uncommon macroscopic and especially histological patterns in struma ovarii can cause difficulties in diagnosis; also, cystic pattern is challenging to diagnose both macroscopically and histologically.

In some cases, struma ovarii can be associated with ascites and pleural effusion (pseudo-Meigs syndrome) or could be hormonally active and manifest clinically symptoms of thyroid hyperactivity. Preoperative diagnosis is difficult because ultrasonography or computer tomography are not specific, they can only show tumor mass, solid or cystic.

We report a case of unilateral monodermal mature teratoma, struma ovarii type, in a 43-years old patient with benign ascites.

### Case Report

A 43-years old woman treated at our Hospital of Obstetric-Gynecology; she presented with pelvic pains and repeated metrorrhagia.

Family and personal anamnestic data show uterine cervix amputation (at 38 years old), renal lithiasis, secondary anemia. Gynecological anamnesis: menarche at the age of 14, menstrual cycles regular, last menstruation 2 weeks ago. Parturition: 3 and abortion: 0.

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.

Clinical examination show pain in right iliac region. Gynecological examination showed no pathological findings in vulva and vagina; status post uterine cervix amputation, uterus increased in volume with a 5 cm leiomyomatous nodule.

Laboratory blood analyses show leucocytes 6280/mm<sup>3</sup>, VSH 10, CA-125 increased at 48,08U/ml.

Radiography of the thorax show no pathological findings. Ultrasonography show uterus increased in volume 106/80/31mm that present in anterior wall a submucous nodule of 44/32mm with non-homogenous structure, right ovary – increased in volume 5 cm in diameter with cystic structure, left ovary – normal structure 23/18mm.

Surgeons performed total hysterectomy with bilateral oophoro-salpingectomy; intraoperative was observed minim quantity of ascites, 200ml of serocitrin aspect. Histopathological examination, macroscopically: uterus increased in dimensions 200/180/100 mm that show in anterior wall a leiomyomatous nodule of 40/30mm, right ovary – with cystic transformation 60/50mm, left ovary – normal aspect 40/30mm.

Microscopy showed proliferative endometrium, leiomyomatous myometrium, right ovary – monodermal mature teratoma, struma ovarii type, left ovary – follicular cyst, fallopian tubes without modifications, ascites liquid without atypical cells.

## DISCUSSION

The peak age of incidence for struma ovarii is the fifth decade of life (1). Usually patients present with symptoms of pelvic mass. In our case, 43-years old woman present with pelvic pain and metrorrhagia.

According to Blaustein, the frequency of the occurrence of struma ovarii range from 5 to 20% and most cases are benign and unilateral. Same like in our case, right localization, benign form. The ascites is also a common finding, no malignant cells or any other sings of malignancy were found in ascites after histological and cytological examination.

Preoperative diagnosis is very difficult due to different types of ovarian tumors with similar findings. The ultrasonography features of struma ovarii are also nonspecific. It is difficult to distinguish between struma ovarii and other ovarian tumors on the basis of their sonographic appearance.

Kim et al. showed that struma ovarii has some characteristic MR appearance of a multilobulated complex mass with thickened septa, multiple cysts of variable signal intensities, and enhancing solid components (5). The use of US, CT and MR imaging features of ovarian teratomas can aid in differentiation and diagnosis (3,5,9).

Histopathological examination can give the final proof; only microscopic examination may reveal the presence of thyroid tissue in the ovary and avoid the confusion with other cystic ovarian tumors.

No symptoms of hyperthyroidism were observed, including the post-operative period.

## CONCLUSION

Benign and unilateral struma ovary was diagnosed in a 43-years old woman treated in the Obstetric-Gynecology Hospital of Arad in 2015. The patient show no hyperthyroidism symptoms before and after surgery. No complication in postoperative period.

Struma ovarii is a rare type of teratomas, difficult to identify without histopathological examination. Surgery is the only treatment because can cause symptoms of pelvic mass and compression, also malignant alteration is possible.

## REFERENCES:

1. Blaustein A. Pathology of the female genital tract. New York: Springer-Verlag;2004.
2. Boettlin R. Über zahntwicklung in dermoid cysten des ovariums. Virchows Arch Path Arat 1889; 115: 493-504.
3. Gottschalk S. Ein neuer typus einer kleincystischen bosartigen eierstockgeschwulst. Arch Gynak 1899; 59: 676-98.
4. International histological classification of tumors, No.9. Geneva: World Health Organisation; 2005.
5. Kim JC, Kim SS, Park JY. MR findings of struma ovarii. Clin Imaging 2000;24:28-33.
6. Kumar V, Gupta N, Srivasan R et al. Struma ovarii. A report of seven cases. J. Obstet Gynecol India 2007; Vol. 57, No. 4: 350351.
7. Outwater EK; Siegelman ES; Hunt JL. Ovarian teratomas: tumor types and imaging characteristics. Radiographics 2001;21(2):475-90.
8. Serov SF, Scully RE, Sobin LH. Histological typing of ovarian tumors. 2006.
9. Templeman CL, Fallat ME, Lam AM, et al. Managing mature cystic teratomas of the ovary. Obstet Gynecol Surv 2000; 55: 738–745.