

# Hashimoto's Disease in a Bilateral Benign Cystic Ovarian Teratoma: A Case Report

## Bilateral Benign Kistik Over Teratomunda Hashimoto Hastalığı: Olgu Sunumu

**Rupinderjeet KAUR, Jasbir SINGH, Anureet KAUR, Rimpi BANSAL, Satish SHARMA**

*Department of Pathology, Giansagar Medical College and Hospital, Banur, Dist Patiala, PUNJAB, INDIA*

### ABSTRACT

A wide array of tissues derived from all the three germinal layers is seen in ovarian teratomas. Among these, thyroid tissue is present in 10% cases of all mature cystic teratomas.

We report this case of Hashimoto's thyroiditis in a clinically euthyroid patient who tested positive for antithyroid peroxidase antibodies in spite of normal thyroid hormone profile.

While the histological features of several disorders of thyroid tissue may be discovered, Hashimoto's thyroiditis is extremely rare finding in ovarian teratomas.

**Key Words:** Hashimoto thyroiditis, Teratoma, Mature, Dermoid, Ovary

### ÖZ

Ovaryum teratomalarında her üç germ yaprağına ait çok çeşitli dokular görülmektedir. Matür kistik teratomaların %10'unda tiroid dokusu bulunmaktadır.

Burada tiroid hormonları normal olmasına rağmen antitiroid peroksidaz antikorları pozitif saptanan klinik olarak ötiroid bir Hashimoto tiroiditi olgusu sunulmaktadır.

Ovaryum teratomalarında tiroid dokusunun pek çok hastalığı görülebilmekle birlikte, Hashimoto tiroiditi oldukça nadirdir.

**Anahtar Sözcükler:** Hashimoto tiroiditi, Teratom, Matür, Dermoid, Ovaryum

### INTRODUCTION

Mature teratomas, mostly cystic (dermoid cyst), account for approximately 30% of benign ovarian tumors, and are unilateral in 88%. Microscopically, tissues derived from all the three germinal layers may be found, the most common being epidermis, skin appendages and neural tissue. Thyroid tissue is present in 10% of cases (1).

Thyroid tissue in ovarian teratoma may exhibit histological features of several disorders, like diffuse and nodular hyperplasia, chronic thyroiditis and carcinoma. The finding of Hashimoto's disease in a bilateral mature cystic teratoma is a very rare phenomenon, with few cases reported in literature till date (2, 3). We report this case for its rarity.

### CASE REPORT

A woman, aged 42 years, complained of severe acute abdominal pain and vomiting. Radiological diagnosis revealed bilateral ovarian masses, for which an emergency laparotomy was performed and hysterectomy with bilateral

oophorectomy was done. The specimen was sent for histopathological examination.

Grossly, the uterus and cervix measured 10x7.5x6 cm. The left ovary measured 9x6x3.5 cm, which on cut section showed multiloculated cysts containing sebaceous material, tufts of hair and some solid areas. The right ovary measured 7x5x4cm. It was predominantly cystic containing sebum. A Rokitansky protuberance, having a tooth like structure was also seen.

Serial sections from both ovaries showed a lining of keratinizing squamous epithelium with skin appendages. Neural tissue, respiratory epithelium, gastric epithelium, bone and smooth muscle were also present.

One section from left ovary contained predominantly thyroid tissue, consisting of colloid filled follicles showing prominent Hurthle cell change. The peri-acinar tissues contained mature lymphocytes, lymphoid follicles with enlarged reactive centres. The appearances were consistent

Received : 06.08.2010

Accepted : 19.10.2010

**Correspondence:** Rupinderjeet KAUR

75, New Moti Bagh Colony, Patiala, PUNJAB (Pin code- 147001), INDIA

E-mail: giansagar\_rupinder@yahoo.co.in Phone: +91 981 430 07 07

with the chronic lymphocytic thyroiditis of Hashimoto's disease. Lymphocytic infiltration was not seen in association with any of the other teratomatous elements.

The thyroid hormone profile of the patient was normal. Antithyroid peroxidase antibodies were positive postoperatively.

### DISCUSSION

Various tissues from all the three germinal layers are found in mature teratoma. Benign and malignant transformation can occur in any of these tissues. Thyroid tissue is present in 10% of cases which is usually normal looking or may show benign changes like hyperplasia or thyroiditis. Some cases of carcinoma and malignant lymphoma are also reported (4).

In ovarian teratoma, thyroiditis is an occasional finding and Hashimoto's thyroiditis is rare (5). Caruso et al (1971) reviewed 305 teratomas of the ovary and discovered that thyroid tissue was present in only 20 cases (7%) and struma ovarii in two cases (0.7%). There is no mention of Hashimoto's disease in any of their cases (2). In another study of 315 teratomas conducted by Watson, thyroid tissue was present in 17 cases and among these cases Hashimoto's disease was encountered only in one case, in which an immunological test for antithyroid antibodies was negative (3). In our case, the patient's clinical and thyroid hormone profile was normal. Ultrasonographic examination was unremarkable. However our patient tested positive for antithyroid peroxidase antibodies. Hashimoto's disease has been reported in papillary carcinoma of the thyroid

originating in a teratoma of the ovary (6). Etiopathogenesis of such change in ectopic thyroid tissue is unclear. Watson attributes internal gynaecological manipulation and the possibility that some trauma, could initiate the formation of the ovarian Hashimoto's disease (3). In our case no such history could be elicited.

This paper reports a rare case of a patient with Hashimoto's thyroiditis in thyroid tissue in a bilateral mature cystic teratoma associated with positive specific antithyroid antibodies in the absence of symptoms and signs, due to thyroid disease.

### REFERENCES

1. **Pantoja E, Noy MA, Axtmayer RW, Colon FE, Pelegrina I:** Ovarian dermoids and their complications: comprehensive historical review. *Obstet Gynecol Surv* 1975, 30:1-20
2. **Caruso PA, Marsh MR, Minkowitz S, Karten G:** An intense clinicopathologic study of 305 teratomas of the ovary. *Cancer* 1971, 27:343-348
3. **Watson AA:** Histological Hashimoto's disease in a benign cystic ovarian teratoma. *J Clin Path* 1972, 25:240-242
4. **Hasleton PS, Kelehan P, Wittaker JS, Burslem RW, Turner L:** Benign and malignant struma ovarii. *Arch Pathol Lab Med* 1978, 102:180-184
5. **Bonadio AG:** Hashimoto's thyroiditis in "struma ovarii". Case report and review of the literature. *Minerva Endocrinol* 2002, 27:49-52
6. **Doldi N, Taccagni GL, Bassan M, Frigerio L, Mangili G, Jansen AM, Ferrari A:** Hashimoto's disease in a papillary carcinoma of the thyroid originating in a teratoma of the ovary (malignant struma ovarii). *Gynecol Endocrinol* 1998, 12:41-42