

中文題目：一位葛瑞夫茲氏病患者的卵巢畸胎瘤中出現原發性甲狀腺乳突癌的病例報告

英文題目：Primary Thyroid Papillary Carcinoma in Ovarian Mature Cystic Teratoma In

Graves' disease patient: a case report

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**Introduction:** Mature cystic teratoma is the most common kind of ovarian germ cell tumor.

However, malignant transformation is uncommon, differentiated thyroid carcinoma is even rare.

Coexistent of Graves' disease and papillary thyroid carcinoma arising in ovarian teratoma has never been reported. We presented a case with cystic teratoma with primary thyroid papillary carcinoma in a Graves' disease patient.

**Case presentation:** A 48-year-old woman who was diagnosed with Graves' disease 4 years ago and experience relapse 1 year before this admission after antithyroid drug withdrawal, she visited emergency department of this hospital with complaint of severe abdominal pain for one day. Computed tomography of abdomen depicted marked enlargement lesion of pelvis mixed with fat and calcification, measured 8.6 x 7.2cm in size. The patient subsequently underwent laparotomy right total oophorectomy. Huge gangrenous right ovary was excised during operation. The pathological diagnosis demonstrated cystic teratoma with papillary thyroid carcinoma change. We performed thyroglobulin, TTF-1 and CK19 staining in the teratoma, the results were positive, suggesting the thyroid-hormone secretion in the papillary thyroid carcinoma tissue. After resection of the ovarian lesion, euthyroidism was achieved. Adjuvant thyroidectomy is not performed for no evidence of thyroid lesion or distant metastases. No Graves' disease recurrence in the 3 years after operation. The patient also does not manifest any gynecological disease symptoms, whereas the other ovary, in the follow-up ultrasound examinations, shows normal size and echo structure.

**Discussion:** The mature cystic teratomas, including dermoid cysts, are one of the most frequently occurring benign ovarian tumors diagnosed in female patients. The neoplastic transformation in mature dermoid cysts is applicable to only 1-2% of cases. However, malignant transformation with papillary thyroid carcinoma is rarely been described. It is recommended that thyroid carcinoma arising from ectopic thyroid tissue in a teratoma should be managed as thyroid carcinoma in thyroid. Our patient's thyroid echo revealed normal thyroid size with heterogenous change, compatible with autoimmune thyroid disease. Papillary thyroid carcinoma may arise within mature ovarian teratomas, excessive production of thyroid hormones by papillary thyroid carcinoma had ever been reported. In our case, her antithyroid drugs was discontinued 2 months after teratoma excision, with no relapse till now. We suspected her previous thyrotoxicosis depending on two possible conditions: (1) the ovarian tumor can autonomously produce hyperfunction (because of the tissue strong staining of thyroglobulin) and (2) Graves' disease.

**Conclusion:** Papillary thyroid carcinoma may arise within mature ovarian teratomas and may be functionally active. Surgeries of unilateral oophorectomy or cystectomy is an optimal treatment

option, examine the thyroid gland in terms of differentiation of its tumor and functional conditions is important.