



The gynaecologist removed a thyroid cancer – WHAT?!

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Introduction: Mature cystic teratoma (also known as an ovarian dermoid) is the most common type of ovarian teratoma and also the most frequent tumour originating from germ cells. Usually unilateral, it is, by definition, composed of well-differentiated derivatives which originate from all three germ cell layers. It is most frequently diagnosed in the female reproductive years; in its pure form, it is generally benign, but occasionally it may undergo malignant transformation in one of its elements.

Case history: The authors report an unusual case of a post operative histological finding of papillary thyroid carcinoma within a mature cystic teratoma. A 41-year-old woman with no significant past medical history and no prior abdominal surgeries underwent a laparoscopic right salpingoophorectomy on clinical concerns of an ovarian torsion with a 7cm ovarian dermoid diagnosed on ultrasound and CT. The laparoscopy confirmed ovarian torsion x3 and the procedure was otherwise uncomplicated. The rest of the pelvis appeared normal. There was an inadvertent cyst rupture at the time of specimen retrieval.

The histology report unexpectedly returned with a mature ovarian teratoma with papillary carcinoma of thyroid (confirmed with immunostaining diffusely positive for PAX8 and TTF1).

She was referred to the gynaecology oncology as well as the endocrine service in Royal Brisbane and Women's Hospital. She has since recovered well post-operatively and has had extensive investigations for metastatic disease – all of which have come back negative. She is currently on surveillance. Consent was sought from the patient for this poster.

Discussion: Malignant transformation of the ectopic thyroid tissue, which is one of the elements of the ovarian cystic teratoma, is extremely rare: it is diagnosed on basis of the histological picture and criteria which are the same as for the tumour of the thyroid gland. One should not exclude a possibility that the identical or different pathological alterations characteristic of the thyroid gland may also be detected in the ectopic thyroid tissue of a dermoid cyst.

Conclusion: The reported case was chosen due to its complex pathohistological picture characterized by the occurrence of a dermoid cyst with the malignant transformation of the thyroid tissue. The malignant neoplasm in the mature ovarian cystic teratoma was papillary carcinoma of the thyroid tissue with all histological properties typical for the thyroid gland carcinoma.

