Differentiated thyroid carcinoma arising from or associated with struma ovarii: report of 2 cases

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OBJECTIVES

• Struma ovarii is a rare condition which elicited considerable interest because of its many unique features like its relationship to teratoma and differentiated thyroid cancer.
• The most common thyroid carcinomas to arise in struma ovarii are papillary and follicular.
• We describe two patients with differentiated thyroid carcinoma originating from malignant struma ovarii.

Patient 1

• 49 year old woman presenting with bone pain revealing follicular thyroid carcinoma metastases on biopsy
• Total thyroidectomy with lymphadenectomy revealed a follicular thyroid carcinoma with oxyphil component T3N1bM1.
• Two years later, ovariectomy revealed a malignant struma ovarii.
• Surgical resection of several vertebral metastases with spinal decompression and seriate adjuvant radioiodine therapy (10 GBq) were performed.
• WBS revealed high uptake on cervical lymph node and disseminated pulmonary and skeleton metastases justifying the pursue of radioiodine therapy.

Patient 2

• 32 year old woman
• Ovarian teratoma with:
  - well differentiated follicular variant of papillary thyroid carcinoma
  - peritoneal dissemination and appendix tumoral infiltration
• Two years later total thyroidectomy was performed (Histology revealed chronic thyroiditis without thyroid cancer)
  Whole body scintigraphy (WBS) with therapeutic activity of I-131 (2 sessions; cumulated activity: 11.1GBq) revealed initial disseminated pulmonary and bone metastases with a complete response after radioiodine therapy, in agreement with undetectable Tg.

CONCLUSIONS

Vascular invasion was not identified in any of the cases; however, disseminated metastases were identified. The treatment of choice for patients with thyroid carcinoma within ovarian malignant struma ovarii is local resection of the extra-ovarian tumor with subsequent thyroidectomy followed by radioactive iodine ablation.

REFERENCES