

A case of follicular carcinoma of thyroid with renal metastasis

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Introduction

Thyroid carcinoma comprises 1% of all malignancies. It is the commonest malignant endocrine tumour¹. Most thyroid carcinomas arise from the follicular epithelium and are differentiated carcinomas.

The two main groups are papillary (80%) and follicular (10-15%)². Follicular carcinoma has a predilection for spreading via the bloodstream early, and metastasis is most commonly to the lung and bone¹. So far only about 20 cases of differentiated thyroid carcinoma metastasising to the kidney have been reported. We report a rare case of follicular thyroid carcinoma metastasising to the kidney.

Case report

A 61 year-old woman had a gradually enlarging goitre and a large scalp lump in the occipital region for 4 years. There was no hoarseness or dysphagia and she was euthyroid. On examination, there was a large goitre displacing the trachea to the right and a soft boggy mass over the occipital region of the scalp. MRI brain showed a soft tissue lesion eroding the occipito-parietal bone and the bony defect was evident on the skull x-ray (Figure 1). FNAC of the thyroid showed follicular neoplasm. The chest x-ray showed multiple lung metastases. CT scan of the chest and abdomen confirmed the lung metastases, and also incidentally detected a tumour in the upper pole of the left kidney (Figure 2). Serum thyroglobulin level was markedly elevated (> 100,000 ng/mL).

Total thyroidectomy and left radical nephrectomy was performed, during which a large tumour arising from the left lobe of the thyroid, a tumour arising from the upper pole of the left kidney and suspicious peritoneal deposits on appendices epiploicae were found. Histopathology showed an invasive follicular

carcinoma of thyroid with metastatic deposits in the left kidney and appendices epiploicae. After a successful post-operative recovery, the patient is to be followed up by the oncologist.



Figure 1 - Skull x-ray showing the bony defect (arrow).

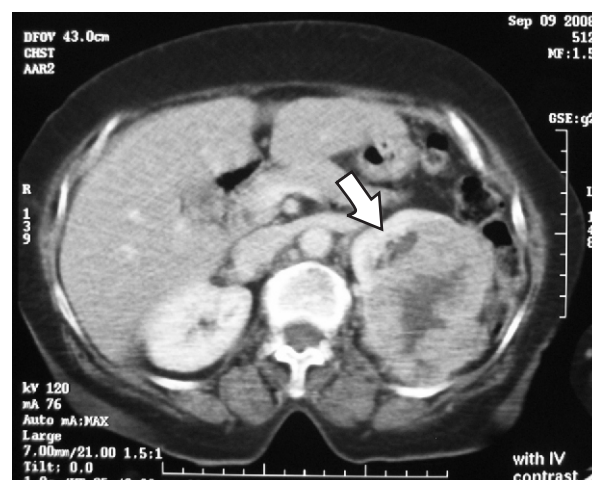


Figure 2 - Contrast enhanced CT scan of the abdomen showing the tumour in the upper pole of left kidney (arrow).

Discussion

Both follicular adenoma and carcinoma show similar histological features and demonstration of capsular or vascular invasion is essential for the diagnosis of carcinoma. This is not possible by FNAC, and histological examination of the resected specimen is needed¹.

Treatment of the primary tumour is either total thyroidectomy or lobectomy followed later by completion thyroidectomy depending on the definitive histology^{1,3}.

Radioiodine therapy is used to treat metastatic disease in patients with differentiated thyroid cancer⁴. Surgical removal of resectable metastases can be a valuable complement to this therapy, and the complicated surgical treatment of metastases is justified by the favorable effect it has on prognosis and quality of life⁵. Bone metastases are generally not curable by radioiodine therapy alone and external beam radiotherapy may have to be considered³.

This patient has undergone maximal possible debulking of malignant tissue by total thyroidectomy and left nephrectomy. She will need radioiodine therapy for ablation of residual neoplastic tissue in the thyroid bed and left renal bed and metastatic deposits in lungs and bone. She will also require external beam radiotherapy for the bony metastasis of the skull.

References

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