Case Study

Follicular Carcinoma Of Thyroid - Scalp Secondaries

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ARTICLE INFO

AbSTRACT

Follicular thyroid carcinoma is the second most common thyroid cancer after papillary carcinoma, but it is ranked first in producing distant metastasis among thyroid carcinoma. It accounts for 20% of all thyroid malignancies and is most often seen in patients over 40 years of age. There have been less than 30 reported cases of cutaneous metastases from follicular thyroid carcinoma in the literature, a major effecting head and neck. We present a 60 year old elderly lady with swelling in the right fronto parietal region since 9 months. FNAC revealed metastatic follicular carcinoma. Past history revealed patient undergoing total thyroidectomy one year back and was prescribed thyroxine 100mcg, which she discontinued after one month. Thyroid function test revealed hypothyroidism. Metastatic tumors are TSH dependent and strict TSH suppression is mandatory. Patient was treated with radioactive iodine at a dose of 400 mCi.
INTRODUCTION:
Thyroid carcinoma is the most common endocrine malignancy (90% of all endocrine cancers)\(^1\). Risk factors are ionizing radiation, presence of thyroid adenoma and multinodular goitre. The variants of thyroid carcinoma are Papillary carcinoma (60%), Follicular (20%), Anaplastic (10%)\(^2\). Thyroid carcinomas are derived from follicular epithelial cells. Follicular carcinoma is known to produce distant metastases, common sites are bones, lungs, CNS\(^1\). There have been fewer than 30 reports of cutaneous metastases in the literature, a majority are to the scalp.

CASE REPORT
A 60-year-old elderly lady presented in the OPD with history of a swelling in right side of forehead since 9 months, no history of pain in the swelling. Swelling started initially with a small size and gradually increased in size. No history of sudden increase in size of the swelling. No history of trauma. Clinical comorbidities k/c/o hypertension on treatment with amlong 5mg once a day.

Past history revealed undergoing total thyroidectomy 1 year back. Histopathological report at that time revealed FOLLICULAR VARIANT OF PAPILLARY CARCINOMA OF THYROID. Patient was advised to take eltroxin 100mcg daily postoperatively. Patient stopped taking eltroxin after 1 month after surgery (non-compliance).

On examination there is a swelling in frontoparietal region measuring 10X15CMS. There is a loss of hair over swelling. All the borders are well made out. Skin over the swelling is pinchable. The lesion is firm in consistency. The swelling was not freely mobile.

INVESTIGATION
- T\(_3\) 1.23 ng/ml
- T\(_4\) 4.82 mcg/dl
- TSH 1.37 MCGIU/ml
- x ray of skull revealed no bony erosions.

ULTRASONOGRAM of swelling iso to hypoechoic soft tissue mass/lesion measuring 8 x 7 cms noted over right frontoparietal region in scalp with underlying erosion of the skull vault. Doppler flow shows signals in the lesion, and no calcification seen.

- Fine needle aspiration cytology of swelling revealed metastatic follicular carcinoma.
- Patient was treated with radioactive iodine (T\(^{131}\)) at a dose of 400 mCi.

DISCUSSION:
Follicular thyroid carcinomas (FTC) often spread to bones and lung [5]. The occurrence of cutaneous metastases is a rare event, but predominantly the skin of head and neck is affected [4].

Thyroid secondaries are usually bony -skull (osteolytic) in the present case. The secondaries are cutaneous. Differentiated thyroid cancers are TSH dependent. It is a standard practice to prescribe 0.1 to 0.2 mg for all differentiated thyroid cancers to suppress endogenous TSH production. TSH levels should be less than 0.1 milliunits/l indicate an inadequate dose of thyroxine or that the patient is non-compliance\(^2\).

There is a trend to manage patients with undetectable levels of thyroglobulin after radical thyroidectomy. Because of some concern over the impact of longterm TSH suppression. Metastatic lesions are hard in consistency, but in our case the swelling was soft to firm in consistency. Metastatic thyroid carcinoma usually produce osteolytic bony lesions. Patient with distant metastases requiring repeated admission of radioactive iodine for scanning and therapy should be given T3 40 to 60 mcg daily as it is short acting. TSH secretion and thyroid avidity for iodine recover quickly, so that radio iodine given in days, instead of weeks of hypothyroidism with T\(_4\).

CONCLUSION:
Post operative thyroxine supresses the TSH secretion. Differentiated thyroid carcinomas are TSH dependent.

REFERENCE
3) Kenko Cupiste et al. Multiple giant scalp metastases of a follicular thyroid carcinoma, World Journal of Surgical Oncology 2008:62
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