



FOLLICULAR CARCINOMA THYROID MASQUERADING AS SEBACEOUS CYST ON SCALP: A SOLITARY METASTATIC LESION

General Surgery

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ABSTRACT

Follicular carcinoma accounts for 10–15% of all thyroid cancers. It originates from the thyroid's follicular cells and can range from minimally invasive to extensively invasive. The diagnosis is confirmed exclusively through histopathological analysis. While metastasis typically occurs in the lungs and bones, skin metastasis is unusual. We report a case where cutaneous metastasis of follicular thyroid carcinoma presented as a sebaceous cyst on the scalp.

KEYWORDS

Follicular Carcinoma, Metastasis, Sebaceous Cyst, Scalp

INTRODUCTION

Follicular thyroid carcinoma (FTC) is the second most common type of thyroid cancer which is considered more aggressive than papillary carcinoma[1]. It originates from the follicular cells of the thyroid gland and can be either minimally or extensively invasive. This type of cancer often manifests as a solitary thyroid nodule, typically without symptoms. Diagnosing follicular carcinoma can be challenging and usually requires histopathological evaluation after thyroidectomy. Treatment typically involves surgical removal of the thyroid, followed by radioactive iodine therapy and thyroid hormone replacement. Bone metastasis has been recognized as the second most common form of metastases after lung metastasis in FTC. Distant metastasis occurs in 10–15% of patients, even in those with small primary tumors. Metastatic tumors to the scalp are usually observed in elderly patients and most often from lung, breast, prostate malignancies, and rarely from thyroid cancers[5]. Skin and skull metastases are extremely rare. We report a case of subcutaneous metastatic follicular carcinoma of the thyroid presenting on the scalp. There have been less than 30 reported cases of cutaneous metastases from FTC in the English literature, a majority affecting the scalp[2].

CASE REPORT

A 56-year-old female presented to the surgical OPD with swelling on the left temporoparietal region of the scalp for 10–12 days. The size of the swelling was gradually increasing, with mild pain and redness of surrounding skin. On examination, the swelling was approximately 2×2 cm with well-defined margins and a central black punctum. No swelling was seen on any other site of the body. No palpable lymph nodes were present.

The patient had a history of thyroidectomy for follicular carcinoma of thyroid 5 years back, initially presenting with a midline neck swelling [Figure 1] that was evaluated with a contrast CT scan of the neck [Figure 2]. The histology was consistent with follicular carcinoma of thyroid with poorly differentiated areas. Some sections showed capsular infiltration by tumor cells along with more than 4 blood vessels infiltration. Thereafter, the patient was started on eltroxin as thyroid replacement therapy. On SPECT CT pre-therapy diagnostic I-131 whole body scan, residual functioning thyroid tissue in the neck with lymph node metastasis and tracer-avid bilateral pulmonary metastasis were observed. 185 mCi of iodine-131 ablation therapy showed the same residual thyroid tissue with pulmonary and lymph node metastases. The patient was given tab eltroxin as thyroid replacement therapy. After a series of iodine-131 ablation therapies, no evidence of any residual thyroid tissue or tracer-avid metastasis was seen [Figure 3] and the treatment was completed in 2022.

The scalp lesion was diagnosed as sebaceous cyst clinically and excision of cyst was done under local anaesthesia. Excised cyst on histopathology showed metastatic follicular carcinoma thyroid.



Figure 1: Midline swelling of the neck of the patient prior to surgery for follicular carcinoma of thyroid.



Figure 2: Pre-operative CT scan of the neck showing the thyroid swelling.

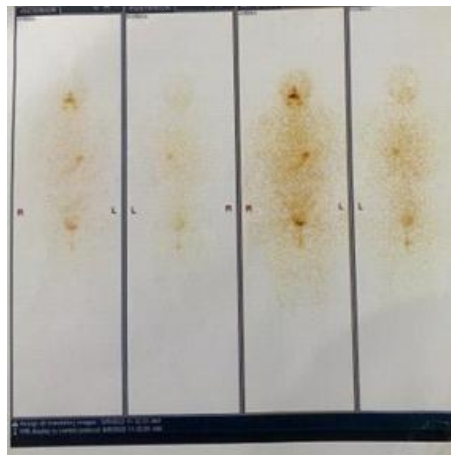


Figure 3: Iodine-131 whole body scan following completion of ablation therapy, showing no tracer-avid residual disease.

DISCUSSION

Follicular carcinoma thyroid (FTC) is the second most common thyroid cancer following papillary thyroid cancer[1]. FTC can disseminate hematogenously through angioinvasion. Metastasis of follicular carcinoma thyroid to the skull is very rare[3]. Quinn et al. found scalp metastases in 9 of 14 patients with cutaneous metastases of FTC[4]. Metastatic tumors to the scalp are usually observed in elderly patients and most often from lung, breast, prostate malignancies, and

rarely from thyroid cancers[5]. Our patient was a known case of follicular carcinoma thyroid for which she had undergone total thyroidectomy after histopathological confirmation. SPECT CT before iodine-131 ablation therapy showed residual thyroid, pulmonary and lymph nodal metastasis. After a series of iodine-131 ablation therapy, the SPECT CT substantiated no residual disease. After two years of completion of her therapy, she presented with a swelling on her scalp which was clinically diagnosed as a sebaceous cyst. The sebaceous cyst was excised with its walls intact and was sent for histopathological investigations. The histology confirmed it to be a recurrent follicular neoplasm. There have been less than 30 reported cases of cutaneous metastases from FTC in the English literature, a majority affecting the scalp[2]. Thus, this rare presentation of follicular carcinoma as a scalp sebaceous cyst underscores the importance of thorough history taking, diagnostic evaluation and histopathological confirmation to avoid any misdiagnosis, along with prompt and early diagnosis of any metastasis.

DECLARATION OF CONSENT

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

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