

Occult Follicular Variant of Papillary Thyroid Carcinoma Presenting as Scalp Metastasis: A Case Report

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Received: 07 September 2016 Initial Review: 15 September 2016 Accepted: 27 September 2016 Published Online: 08 October 2016

ABSTRACT

The skin metastasis of follicular variant of papillary carcinoma thyroid (FVPTC) is a rare condition and the lesions should be differentiated from primary skin tumors. The scalp is the most frequent site which is involved in skin metastasis of FVPTC. It shows the poor outcome and aggressive nature of the disease. In this report, we aim to present a case report of a 65 year –old female with scalp metastasis of FVPTC highlighting the fact that a solitary cutaneous lesion may be the first evidence of disseminated malignancy in a patient with occult papillary thyroid carcinoma.

Keywords: Cutaneous, Metastasis, Papillary thyroid carcinoma

Patients with well differentiated thyroid carcinomas generally have favorable long term outcomes. Papillary thyroid carcinoma (PTC) is the most common thyroid carcinoma representing 80% of the newly diagnosed thyroid carcinomas [1]. It is biologically indolent and has excellent prognosis. PTC usually invades lymphatic's leading to regional lymph node metastasis. Hematogenous spread rarely occurs, leading to distant metastasis in lung, bone and brain. However, cutaneous metastasis is distinctly uncommon [2]. Scalp is the most frequent cutaneous area which is involved. Other cutaneous areas that are involved with less frequency are the cheeks, shoulders, arms, abdomen and thighs [3,4].

Herewith, we are describing a patient with occult papillary carcinoma, who has presented with scalp metastasis.

CASE PRESENTATION

A 60-year-old female presented with history of a swelling in the scalp since two years. The swelling was gradually

increasing in size and ulcerated recently. On examination, there was an ulcerated nodule with in duration in the left occipital region of scalp, measuring 4x3x2cm. Her general and systemic examination was unremarkable and clinically suspected as a metastatic lesion. Biopsy from the swelling revealed a focus of tumor in the form of micro follicles. The cells showed mild to moderate pleomorphism with vesicular oval nuclei having intranuclear inclusions and grooving, suggestive of metastatic follicular variant of papillary thyroid carcinoma (**fig. 1&2**). X-ray of skull showed erosion of left occipital bone.

Patient was advised USG neck and subsequent FNAC for detection of any occult malignancy in the thyroid. Patient did not turn up for follow up visits.

DISCUSSION

Thyroid carcinomas are the most common endocrine cancers, the prevalence of which is about 5% of thyroid nodules [5]. The most common type is papillary carcinoma

and second is follicular carcinoma [6-8]. Thyroid carcinoma metastatic to skin is rare. If the skin is involved, scalp and face would be the usual sites of involvement. This is attributed to rich dermal capillary network of scalp and face that may trap tumor cell emboli from circulation and provide environment for successful formation of metastatic foci [9]. Diagnosis of thyroid carcinoma metastatic to skin can be difficult without detailed clinical history and examination. This case report describes a solitary cutaneous lesion as the first evidence of disseminated malignancy in a patient with papillary carcinoma thyroid.

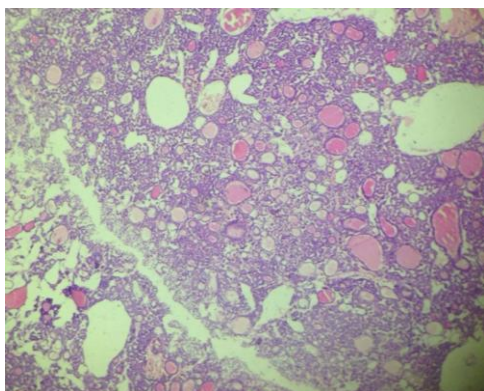


Figure 1: Photomicrograph from scalp shows tumor arranged in the form of microfollicles (H&E X10)

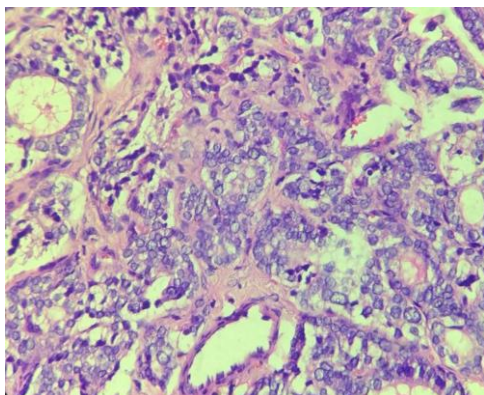


Figure 2: Photomicrograph showing nuclear clearing, nuclear grooving and overlapping typical of papillary carcinoma (H&E X40)

Metastatic thyroid carcinoma involving the skin can easily be mistaken for a primary adnexal skin tumor. The development of antibodies against the thyroid transcription factor TTF-1 has provided a useful tool to screen for metastatic carcinoma.

CONCLUSION

Cutaneous metastasis of thyroid carcinoma is a diagnostic challenge. However, detailed clinical examination along with cytohisto-morphological features of aspirate hints the origin and the type of neoplasm.

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How to cite this article: Nibhoria S, Tiwana K, Kaur M, Bansal S Occult Follicular Variant of Papillary Thyroid Carcinoma Presenting as Scalp Metastasis: A Case Report. *Indian J Case Reports*. 2016; 2(4): 112-113.

Conflict of interest: None stated, Funding: Nil