

CASE REPORT

A Case of Multiple Pulsatile Scalp Metastases Secondary to Occult Follicular Thyroid Carcinoma

Sagnik Roy¹, Nitin Agarwal², Apoorva Mardi³

ABSTRACT

Background: Follicular thyroid carcinoma (FTC) is the second most common thyroid malignancy after papillary thyroid Ca, but compared to papillary Ca, it has a greater tendency to metastasize to the lung (mc) and then the bones. The incidence of skull metastasis in FTC ranges from 2.5 to 5.8%, and in most reported cases, metastasis occurred after the diagnosis and treatment of primary tumor; but in few cases, skull metastasis becomes the presenting feature of an occult FTC. Herein, we report a patient with an occult FTC presenting with multiple pulsatile scalp metastases.

Case: A 50-year-aged lady presented to surgical OPD with multiple scalp swellings for 1 year post trivial trauma. There were no other swellings in neck or other parts of the body or any complaints s/o of hypo- or hyperthyroidism. On examination, there were three pulsatile, nonmobile, irregular, firm-to-hard swellings on scalp; thyroid and neck examination were normal, and no lymph nodes were palpable. Contrast-enhanced computed tomography head and X-ray skull showed multiple focal lytic lesions involving outer and inner tables of the skull. Ultrasonography neck showed no thyroid nodules and no lymph nodes. Fine-needle aspiration cytology of scalp showed repetitive microfollicles and clusters of follicular cells s/o follicular thyroid Ca with scalp metastasis. Patient operated by palliative total thyroidectomy and referred for radioiodine ablation.

Conclusion: Skull metastasis is a rare site for metastasis of FTC. In most reported cases, skull metastases of FTC were located in the skull base or occipital area. In our case, it was seen in occipital, parietal, and frontal bone. So thyroid examination and early detection and evaluation of thyroid nodules may help to diagnose thyroid carcinoma before distant metastasis occurs.

Keywords: Euthyroid, Follicular thyroid carcinoma, Occult.

Indian Journal of Endocrine Surgery and Research (2022); 10.5005/jp-journals-10088-11183

BACKGROUND

Thyroid carcinoma are the most common endocrine cancers, with prevalence of 5% of thyroid nodules.¹ Follicular thyroid carcinoma is the 2nd most common thyroid malignancy after papillary thyroid Ca.²⁻⁴ But compared to papillary carcinoma, it has greater tendency to metastasize to the lung (mc) and then the bones.^{2,3} The incidence of skull metastasis in FTC ranges from 2.5 to 5.8% and in most reported cases, metastasis occurred after the diagnosis and treatment of primary tumor; but in few cases skull metastasis becomes the presenting feature of an occult FTC.⁵ Herein, we report a patient with an occult FTC presenting with multiple pulsatile scalp metastases.

CASE

A 50-year-aged lady presented to surgical OPD with multiple scalp swelling for 1 year post trivial trauma (Fig. 1). There was no other swelling in neck (Fig. 2) or other parts of the body or any complaints s/o of hypo or hyperthyroidism. On examination there were 3 pulsatile, nonmobile, irregular, firm to hard swellings on left temporal (4*3), right parietal (3*2) and left frontal (1*1) (Fig. 1); thyroid and neck examination was normal and no lymph nodes palpable. NCCT head and X-ray skull showed multiple focal lytic lesions involving both outer and inner tables in left frontal and occipital and right parietal regions (Figs 3 and 4). CECT and USG neck showed no thyroid nodule or lymph nodes (Fig. 5). FNAC of scalp showed repetitive microfollicles and clusters of follicular cells s/o follicular thyroid Ca with scalp metastasis (Fig. 6). Patient operated by palliative total thyroidectomy and referred for radioiodine ablation.

¹⁻³Department of Surgery, ABVIMS and Dr RML Hospital, New Delhi, India

Corresponding Author: Sagnik Roy, Department of Surgery, ABVIMS and Dr RML Hospital, New Delhi, India, Phone: +91 8001653881, e-mail: sagnik0496@gmail.com

How to cite this article: Roy S, Agarwal N, Mardi A. A Case of Multiple Pulsatile Scalp Metastases Secondary to Occult Follicular Thyroid Carcinoma. *Indian J Endoc Surg Res* 2022;17(1):24–26.

Source of support: Nil

Conflict of interest: None



Fig. 1: Showing scalp swelling



Fig. 2: Showing no neck swelling



Fig. 3: X-ray showing multiple lytic lesions on skull

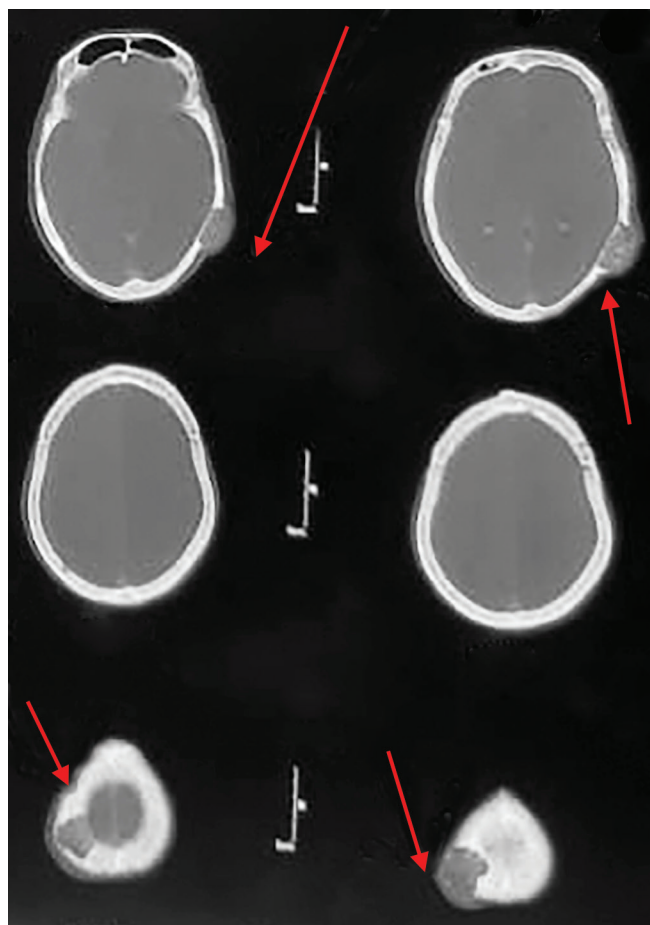


Fig. 4: NCCT head showing destruction of both outer and inner table of skull

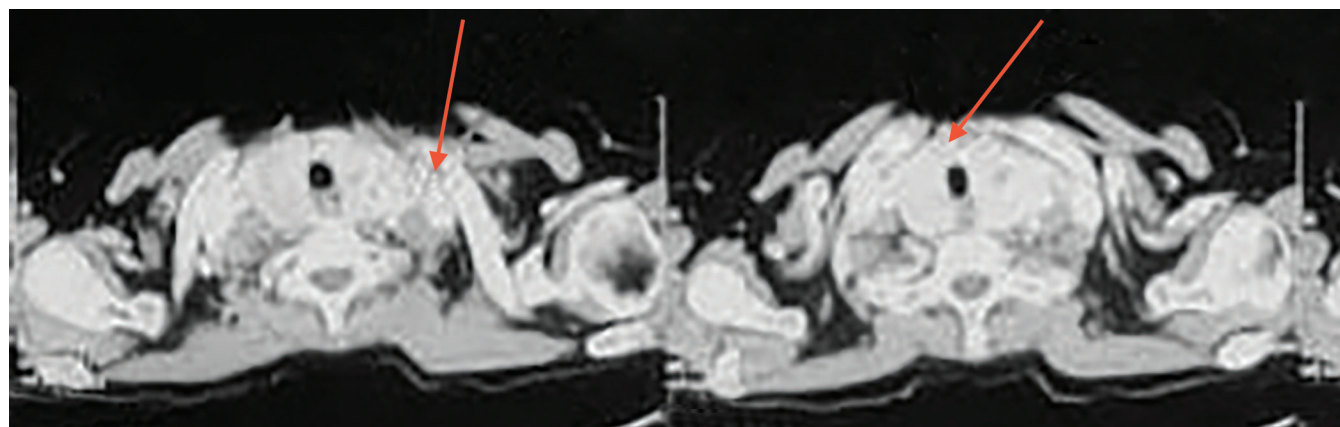


Fig. 5: Contrast-enhanced computed tomography neck showing normal thyroid

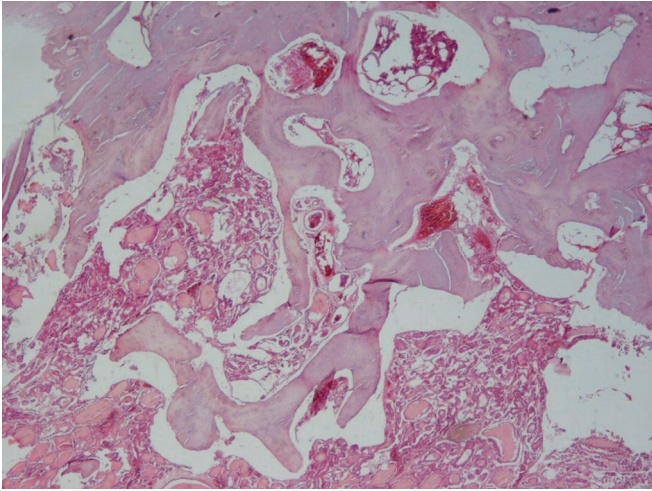


Fig. 6: FNAC of scalp swelling showing follicular cells invading into bony trabeculae

CONCLUSION

Skull metastasis is a rare site for metastasis of FTC. In most reported cases, skull metastasis of FTC was located in the skull base or occipital area.³ In our case, it was seen in occipital, parietal

and frontal bone. The treatment of choice in FTC with scalp metastasis is total thyroidectomy with radioiodine administration⁵ and TSH—suppressive therapy 5-year survival for stage 4 FTC is <50% compared to 95% when tumor confined to thyroid gland. So thyroid examination and early detection and evaluation of thyroid nodules may help to diagnose thyroid carcinoma before distant metastasis occur.

REFERENCES

1. Ozdemir N, Senoglu M, Acar UD, et al. Skull metastasis of follicular thyroid carcinoma. *Acta Neurochir* 2004;146(1155):1158. DOI: 10.1007/s00701004-0290-8.
2. Rahman GA, Abdulkadir Y, Olatoke SA, et al. Unusual cutaneous metastatic follicular thyroid carcinoma. *J Surg Tech Case Rep* 2010;2(1):35–38. DOI: 10.4103/2006-8808.63724.
3. Akdemir I, Erol FS, Akpolat N, et al. Skull metastasis from thyroid follicular carcinoma with difficult diagnosis of the primary lesion. *Neurol Med Chir* 2005;45(4):205–208. DOI: 10.2176/nmc.45.205.
4. Pacini F, Schlumberger M, Dralle H, et al. European consensus for the management of patients with differentiated thyroid carcinoma of the follicular epithelium. *Eur J Endocrinol* 2006;154(6):787–803. DOI: 10.1530/eje.1.02158.
5. Shamim MS, Khursheed F, Bari ME, et al. Follicular thyroid carcinoma presenting as solitary skull metastasis: report of two cases. *J Pak Med Assoc* 2008;58(10):575–577. PMID: 18998315.