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Follicular thyroid carcinoma with pulsatile osseous metastases

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A 55-year-old woman, resident in an iodine-sufficient area, had a diffuse goitre for 25 years. She presented with a rapidly increasing swelling in the right frontal region for 3 months and increasing thyroid gland enlargement for 4 years. On examination, she had a diffuse, firm goitre (grade IV) with multiple tattoo marks and no cervical adenopathy. The swelling in the right frontal region (6×8×6 cm) was globular, firm, warm and pulsatile (figure 1); a similar swelling was present in the left shoulder region. On investigations, thyroid function tests and serum biochemistry were unremarkable. A lateral skull radiograph showed destruction of the frontal bone with an adjacent soft tissue mass. ^{99m}TcMDP bone scan showed photopenic areas in skull, left shoulder, multiple vertebrae and the seventh rib (figure 1). FNAC from the thyroid gland and one of these scalp swellings was consistent with follicular carcinoma with metastases. She underwent total thyroidectomy uneventfully followed by ¹³¹I ablation. Histopathology confirmed follicular thyroid carcinoma (figure 1). In endocrine practice, such visible osseous swellings over the skull

are seen in malignancies with osseous metastasis and rarely in primary hyperparathyroidism involving skull bones due to osteitis fibrosa cystica. Usually these lesions are not pulsatile, however, high vascularity of metastatic lesions due to follicular thyroid carcinoma makes these lesions pulsatile. The reason for high vascularity of metastatic lesion with thyroid carcinoma is postulated as an increase in vascular endothelial growth factor (VEGF) or VEGF receptor expression by tumour tissue particularly in papillary and follicular thyroid carcinoma.¹ The treatment for osseous metastases with thyroid carcinoma include ¹³¹I radioablation localised resection and sometimes radiotherapy. In our patient, these lesions are impressively decreased in size after ¹³¹I radioablation.

Competing interests None.**Patient consent** Obtained.**REFERENCES**

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Figure 1 (A) Pulsatile swelling in right frontal region (6×8×6 cm). (B) ^{99m}TcMDP bone scan showed photopenic areas in skull, left shoulder, multiple vertebrae and the seventh rib. (C) Microphotographs showing cells with mild to moderate anisonucleosis and cell arrangement predominantly in microfollicular pattern (H&E, 100x).

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