A case of pulsating sternal and clavicular metastases of thyrofollicular carcinoma

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DESCRIPTION

Bony metastases are not infrequently encountered with follicular carcinoma of thyroid. Rarely, papillary thyroid carcinoma spreads to bones[1]; however, anterior chest wall (sternal and clavicular) involvement are rare. A 54-year-old man with long-standing (~25 years) multinodular goitre presented with recent-onset rapid enlargement of the sternoclavicular area beneath the goitre. On examination, the swelling was hard, warm and pulsatile and in addition showed engorged anterior chest wall veins (figure 1). He was clinically and biochemically euthyroid. Chest X-ray (figure 2) showed huge thyroid mass with sternal and clavicular erosion confirmed by CT (figure 3). Fine-needle aspiration cytology of the goitre and bony mass confirmed follicular carcinoma. He underwent total thyroidectomy with excision of the sternal and clavicular metastases and reconstruction of the chest wall defect with Marlex mesh. Following surgery, he underwent radioiodine therapy (200 mCi) and the post-therapy scan showed multiple pulmonary macronodular spread with no residual iodine avid lesions in the sternum and clavicles. At 1-year follow-up, the patient was doing fairly well on suppressive therapy with thyroxine.

If not surgically excised, bone metastases of thyrofollicular carcinoma are difficult to manage as they respond poorly to radioiodine therapy. Inoperable bony secondaries especially if painful may to a reasonable extent be ameliorated by external radiotherapy. The reduction in tumour load by surgical removal of the large bone metastases in the index patient immensely helped better ablation of the pulmonary metastases with radioiodine.[2]

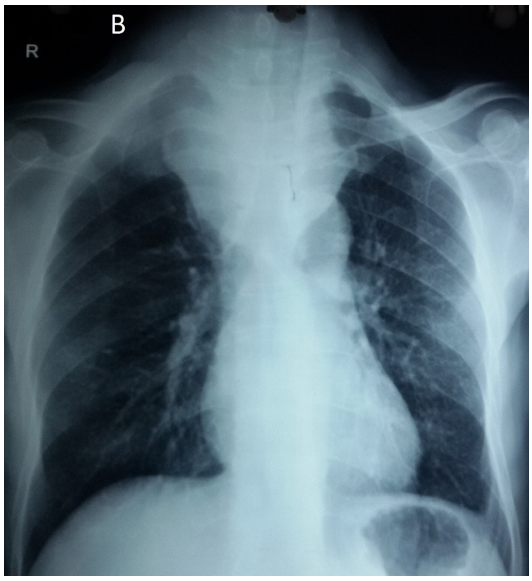

Figure 2 Skiagram of the chest, showing the trachea shifted to the left side and mediastinal widening seen because of the chest wall metastases.

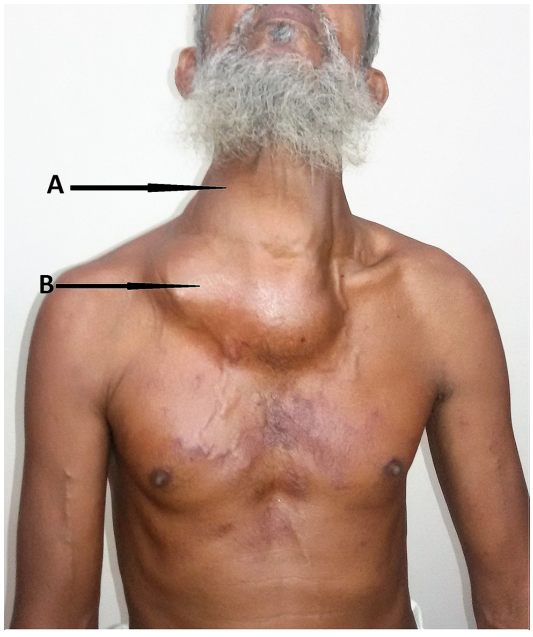

Figure 1 Shows the clinical picture with huge thyroid swelling (arrow A) with the bony lesion in continuity below (arrow B). Multiple prominent dilated veins are visible over the chest wall and upper arm due to the superior venacaval obstruction.

Learning points

- Bony metastases are uncommon in thyroid cancers.
- Solitary bone metastases are amenable for surgery.
- Excision of these bone metastases improve radio iodine therapy and patient care.

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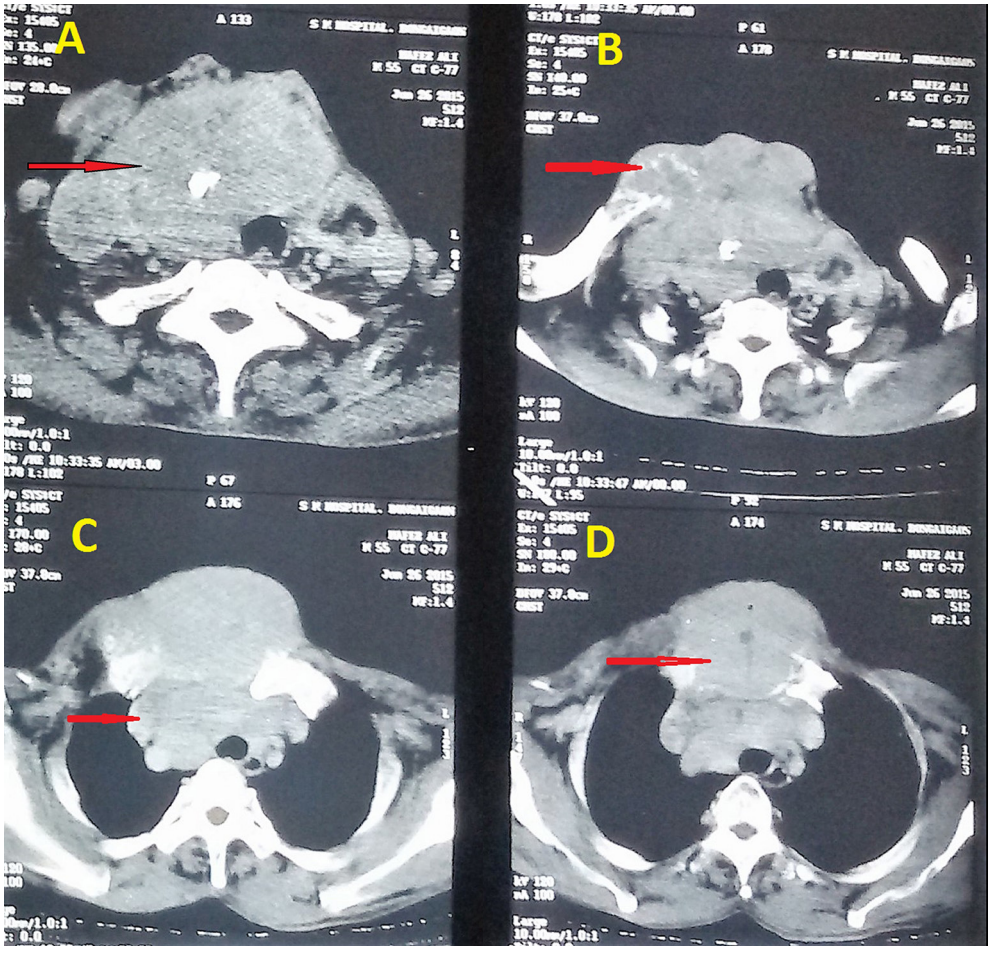

Figure 3 Contrast-enhanced CT, marked with arrows: (A) the vascular right thyroid lobe enlargement, (B) the destructed end of the right clavicle, (C) the retrosternal extension of the thyroid tumour and (D) the sternal destruction and expansion by the metastases.

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Competing interests None declared.

Patient consent Obtained

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