CASE REPORT

Osteoma of the hyoid: an unusual cause of a neck lump

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SUMMARY

A 65-year-old man with a 2-month history of left-sided neck swelling presented through the cancer pathway. There was no associated 'red flag' symptoms, and clinical examination revealed a left anterior triangle, non-pulsatile firm swelling atypical of a lymph node. Ultrasound scan imaging confirmed a complex structure with an echogenic centre and hypoechoic periphery, which was confirmed on CT as an osteoma of the hyoid. This is an extremely unusual cause of a neck lump, and an extensive literature review revealed only two previously documented cases.

BACKGROUND

This case is only the second in the literature and first within 20 years of an osteoma of the hyoid.^{1,2} Although rare, it is an important differential in patients presenting with neck lumps.

CASE PRESENTATION

A 65-year-old man presented along the '2-week wait' cancer pathway with a painless left-sided anterior neck swelling which had been present for at least 2 months with no significant increase in size. There was no associated breathing or swallowing difficulties, nor voice change.

Neck palpation revealed a small, firm, left anterior triangle swelling, which was felt may be continuous with the thyroid cartilage. The neck was clear of lymphadenopathy and the remainder of the otolaryngology examination revealed only a previous tonsillectomy.

The man was a smoker of 40 years and had been diagnosed with prostate cancer 6 months prior to presentation, and had commenced hormonal therapy.

A previous radioisotope scan revealed no abnormalities in the neck in keeping with malignant transformation. Ultrasound scan confirmed a complex structure with an echogenic centre and a hypoechoic periphery continuous with either the hyoid or upper part of the thyroid cartilage. A subsequent CT scan with contrast showed an inferior broad-based bony outgrowth of the hyoid bone measuring 6 mm at the level of the lesser cornu, composed of dense cortical bone representing an osteoma (figure 1).

OUTCOME AND FOLLOW-UP

This man was reassured with the finding of the scan and given his clinical picture was managed conservatively and discharged.

DISCUSSION

An 'unexplained neck lump' forms part of the referral criteria for those with suspected head and neck cancer, and of these less than half will have cervical lymphadenopathy at specialist review, with approximately a quarter of these patients diagnosed with malignant lymphadenopathy.^{3,4} Therefore, there is a large cohort of patients with benign lymphadenopathy, or with a variety of pathologies causing a neck mass. Those commonly associated with the hyoid include thyroglossal duct cysts and dermoid cysts, while tumours originating from the hyoid are rare.² Calcification of the stylohyoid ligament at the lesser cornu attachment is an unusual differential but is typically associated with pain and discomfort, particularly on movement.

Osteoma within the neck is unusual and even more so are those arising directly from the hyoid. Extensive literature review highlighted only two previously reported cases internationally.^{1,2}

Osteoma are benign overgrowths of pre-existing bone, whose exact aetiology is unknown, but is thought to reactionary to trauma, inflammation or infection.^{3,5} Classically, osteoma are characterised by slow proliferation of compact or cancellous

Figure 1 Axial cross-sectional CT of the neck taken at the level of the hyoid. There is an inferior broad-based bony outgrowth of the hyoid bone measuring 6.47 mm at the level of the lesser cornu, composed of dense cortical bone representing an osteoma.

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bone with the majority encountered by otolaryngologists in the external ear canal or within the paranasal sinuses.^{2,5,6} They occur most commonly in men (2:1) within the fourth decade and have autosomal dominant inheritance.⁵

CT is the investigation of choice, providing accurate delineation of the true extent of the lesion and its relationship to adjacent structures.⁷

Osteoma are usually asymptomatic and therefore rarely require surgical intervention. In symptomatic patients, for example, dysphagia or airway compromise, surgery may be necessary with procedure dependent on the location of the osteoma.²

Learning points

- ▶ Neck lumps referred along cancer pathways represent an extensive spectrum of differential diagnoses.
- ▶ Osteomas are rare in the neck but should be considered when lumps are closely associated with bony prominences.
- ▶ Osteomas are slow growing and rarely require surgical intervention.

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