Thyroid papillary microcarcinoma: an incidental finding in a patient with coronoid hyperplasia

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DESCRIPTION
A patient with a history of partial mandibular resection and subsequent reconstruction following a nasopharyngeal carcinoma was referred for evaluation of orofacial pain and restricted mouth opening.

Considering the patient’s medical history and the diagnostic limitations of standard panoramic X-rays (presence of artefacts, image distortions, etc), further advance imaging (eg, MRI or CT) was considered as a diagnostic and management planning tool, which, due to its accuracy, could enable the identification of the coronoid process volume and morphology, and would also allow further assessment of the disk-condyle relationship.1 2

A reformatted high-resolution CT scan was interpreted by a board certified oral and maxillofacial radiologist, and revealed a unilateral (left) enlarged coronoid process with normal morphology, with its tip extending more than 1 cm from the inferior portion of the zygomatic arch, consistent with coronoid hyperplasia (figure 1). This condition, known to clinically mimic temporomandibular joint dysfunction disorders, commonly displays a unilateral presentation and may be associated with several aetiological factors, including muscular hyperactivity, traumatic events and inflammatory reactions, as well as developmental alterations such as exostoses and, more importantly, osteochondroma and neoplasia.3 4 Following advance imaging, an additional incidental finding included a well-defined, low attenuation area in the thyroid region (figures 2 and 3). The patient was subsequently referred to the oncology team for further diagnostic work up to rule out neoplasm. Initial fine-needle aspiration cytology was inconclusive for malignant cells and revealed what was regarded as a follicular lesion of undetermined significance. Histopathology of the surgical specimen following left lobectomy of the thyroid showed features

Figure 1  Volume rendering showing coronoid hyperplasia.

Figure 2  Sagittal slice exhibiting hyperdense region of the thyroid region.

Figure 3  Coronal slice demonstrating the region of interest.

Figure 4  Photomicrograph with focus of papillary microcarcinoma of thyroid (outlined by arrows; original magnification 40X).
consistent with a papillary carcinoma (pT1N0Mx) (figures 4 and 5).

The present case exemplifies the importance of a holistic approach in terms of clinical assessment of the head and neck, while further supporting the importance of modern imaging techniques during the diagnostic process of unusual or clinically convoluted cases.

Figure 5  Photomicrograph of papillary microcarcinoma of thyroid exhibiting follicular features (original magnification ×400).

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REFERENCES


Learning points

- Holistic approach for interpreting the scan by oral and maxillofacial radiologist.
- Use of advanced imaging in diagnostic process.