Primary cavernous hemangioma of thyroid gland

Datta R, Venkatesh MD, Nilakantan A, Joseph B

Hemangiomas are common, vascular, childhood, benign tumors with special predilection to the head and neck region. Primary hemangiomas of the thyroid gland, however, are extremely rare and only five cases were reported in the literature till 2005.[1] We report a case of cavernous hemangioma presenting as a case of solitary nodule of thyroid.

A 25-year-old male presented with a slowly growing solitary swelling in front of neck of 16 years duration. There was no history of pain over the swelling, change in voice or dyspnea. On clinical examination, a $6 \times 4$ cm irregular, hard, freely mobile swelling could be felt in the thyroid region. Ultrasonography (USG) showed a single hypoechogenic mass in the left lobe of the thyroid with coarse calcifications. X-ray of neck also showed coarse calcifications [Figure 1]. Computed tomography (CT) scan showed a heterogeneously enhancing mass of $4.9 \times 4.4$ cm diameter in the left lobe of the thyroid deviating the trachea to the right. Multiple dense calcific densities were noted in the nodule [Figure 2]. Fine needle aspiration cytology (FNAC) of the mass was attempted twice but was inconclusive and only blood could be aspirated. The patient was euthyroid and showed no signs of local spread or lymphadenopathy. Surgery in the form of left hemithyroidectomy was done. Peroperatively, tumor mass was found to be hard in consistency and well encapsulated. Gross pathology showed a well-circumscribed nodule with hemorrhagic and calcified areas. On histopathology, nodule was divided into multiple lobules with areas of hemorrhage, fibrosis, hyalinization and calcifications. Some of these calcifications were located in dilated vessels and classical cavernous vascular spaces could be seen [Figure 3]. A diagnosis of primary intrathyroid cavernous hemangioma was made.

Lesions similar to hemangiomas secondary to FNAC have been reported. These have been ascribed to vascular proliferation in organized hematoma following the FNAC leading to a histological resemblance to cavernous hemangioma.[2] In the present case the imaging was done prior to FNAC which rules out the possibility of post procedure vascular proliferation.

Preoperative diagnosis of cavernous hemangioma of thyroid is difficult since there are no pathognomonic findings on FNAC, USG or radiographs or CT scans. The clinical finding of the hard nature of mass with associated calcifications often points to a malignancy. Hemangiomas in the thyroid feel hard due to the presence of phleboliths within the tumor. Though unusual, it is often the only reliable sign of a rare hemangioma in the thyroid. The presence of heterogeneous signal intensity and serpentine pattern on MRI is considered highly suggestive of cavernous
investigations are often not done due to the high cost and non-availability, as in our case.

This case highlights the fact that presence of a hard nodule with coarse calcifications on imaging and inconclusive cytology should alert the clinician to this possibility.

References


Source of Support: Nil, Conflict of Interest: Not declared.