Clinical Image of Carotid Body Tumor

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Clinical Image

A 73 year old man presented with an asymptomatic pulsatile swelling by the side of the neck. CT showed the carotid body tumour. Carotid body tumors are neck paragangliomas. The carotid body inside the adventitia at the carotid bifurcation is a chemoreceptor, controlling the ph of the body. Tumors arising as sporadic, familial or hyperplastic lesions present as neck masses with associated nerve palsy (hypoglossal, glossopharyngeal, recurrent laryngeal, or spinal accessory nerve, sympathetic chain). CT shows a hypervascular tumor between the external and internal carotid arteries Figure 1. MR angiography characteristically shows the lyre sign and helps to grade it as per the Shamblin criteria. MIBG or a pentetreotide scan can be done in functional tumors in patients who are claustrophobic. Needle or incisional biopsy is not indicated as it may result in profuse bleeding or nerve injury. Excision is done after proximal and distal control of the carotid vessels, provided the tumour is not densely adherent. A pseudo-alveolar pattern (Zellballen) with chief cells and sustentacular cells is seen on histopathology. In high risk and elder patients, radiotherapy or embolization may be offered. Postoperative nerve injuries are often distressing.

Figure 1: Carotid Body Tumor.