Photo Clinic

Parapharyngeal Schwannoma Masquerading as Lymphangioma

Parapharyngeal space (PPS) tumors are uncommon and represent just 0.5% of all head and neck tumors.[1] About 50% of PPS tumors have a salivary cause, 20% have a neurogenic root, and the last 30% display as benign and malignant lymphoreticular lesions, metastatic lesions, and carotid body tumors. Among the neurogenic tumors, schwannomas are the most common, with the majority originating from the vagus nerve in the post-styloid compartment.[2] PPS tumors present as either cervical masses (50%) or intraoral masses (47%), and progressive increments in size may cause compressive symptoms such as dysphagia (11%) and dysphonia (9%), or regional neural invasion (18%).[3] PPS tumors are determined via clinical evaluation, imaging, and histological analysis. Contrast-enhanced computed tomography scan is a beneficial diagnostic study to assess the measure and the degree of the tumor, the possible source of the tumor based on the relocation of the carotid sheath, and the conservation of parapharyngeal fat. This modality can illustrate the level of the tumor vascularity and is vital in choosing the surgical approach. For schwannomas, the gold standard preoperative investigation is diffusion-weighted gadolinium contrast magnetic resonance imaging in that it is extremely useful for the identification of the nerve of origin.[4] The surgical approach hinges on the tumor size, suspicion of malignancy, the location and extent of the tumor, the relationship between the tumor and the major neurovascular structures, and proximity to the skull base.[3]

On March 2017, a 70-year-old lady was referred to otorhinolaryngology clinic, Taiping Hospital, Malaysia with an incidental finding of a painless swelling in the oropharynx. Otherwise, she had no dysphagia, odynophagia, dysphonia, shortness of breath, night sweats, fever, or constitutional symptoms. Intraoral examination showed bulging of the posterior pharynx, mainly on the left side, with normal overlying mucosa. Flexible nasopharyngolaryngoscopy (FNPLS) revealed the medialization of the left lateral pharyngeal wall down to the level of the epiglottis. Otherwise, the laryngeal structures appeared normal. Neck and cranial nerve examinations were unremarkable. Contrast-enhanced computed tomography of the neck (Figure 1a and 1b) showed a well-defined, homogenously non-enhancing hypodense lesion, measuring 2.1 cm (anteroposterior)×4.0 cm (width)×5.3 cm (craniocaudal), at the left parapharyngeal region with extension into the left side of the retropharyngeal space. The mass extended from the level of C1–C2 to the level of C4–C5 between the left pharyngeal wall and the left styloid process. The lesion was anteromedial to the left carotid arteries, and there was no intrapharyngeal extension.

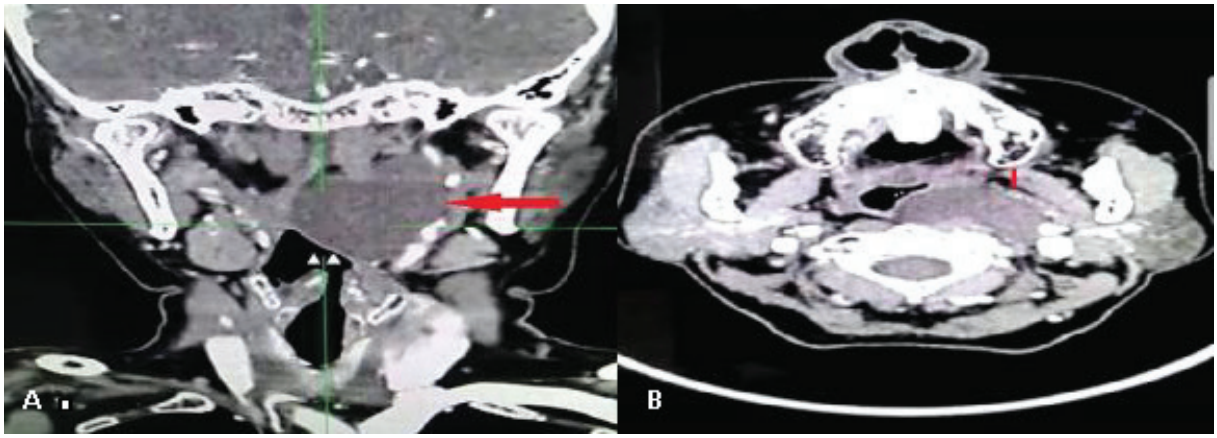

Figure 1: A) Coronal and B) axial views of the contrast-enhanced computed tomography of the neck show a homogenously non-enhancing mass (red arrow) involving the para- and retropharyngeal spaces with narrowing of the oropharynx and the laryngopharynx (white arrowheads) and lateral displacement of the internal jugular vein and the external carotid artery.

The patient underwent an excision biopsy of the lesion via the transoral approach. Histopathological examination of the mass indicated an ancient schwannoma (Figure 2). Postoperatively, the patient had no neurological deficits, nor was there any evidence of recurrence at a 1-year follow-up.

The wide spectrum of benign and malignant neoplasms encountered in the complex PPS poses a great challenge to the establishment of a diagnosis and the surgical treatment of a PPS tumor. The key management of a benign PPS tumor is its preoperative evaluation via imaging and its complete surgical removal with minimal morbidity and complications.

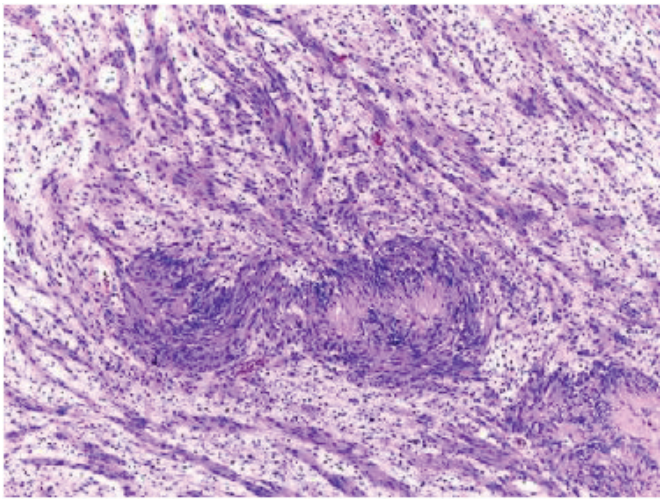

Figure 2: Microscopic examination of the excised mass shows foci of nuclear palisading around the fibrillary process (Verocay bodies).

Written informed consent was obtained from the patient to publish this for research and educational purposes.

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