

Intranasal Glomus Tumor

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ABSTRACT

Glomus tumor is a distinctive benign neoplasm that rarely occurs in the head and neck region, and even less commonly in the nasal cavity. As of 2005, there were only 22 reported cases of sinonasal glomus tumor in the English medical literature. We present here a case of a 58 year-old man presenting with nasal obstruction and intermittent epistaxis. The tumor and its associated symptoms were eliminated by intranasal endoscopic excision. There was no complication or recurrence found during postoperative follow-up. Here we clarify this ambiguous term by reviewing related literature and emphasize the importance of differentiating this tumor from paraganglioma. (*Tzu Chi Med J* 2007; 19:94-96)

Key words: glomus tumor, sinonasal neoplasm, paraganglioma

INTRODUCTION

Glomus tumor of the head and neck is extremely rare and should not be confused with another distinct "glomus tumor", namely paraganglioma, which is more commonly encountered by otolaryngologists. A genuine glomus tumor of the nasal cavity typically presents with nasal obstruction, pain, and epistaxis. Unusual pain or bleeding raises the suspicion of a diagnosis other than conventional nasal polyps. Here, we report a new case of intranasal glomus tumor and describe the characteristics of this uncommon neoplasm with a summary of pertinent literature.

CASE REPORT

A 58-year-old man presented with a 3-month history of left-sided nasal obstruction and intermittent epistaxis. He came to our hospital because of massive nasal bleeding. Physical examination revealed a large

polyp-like mass protruding from the left superior meatus. It bled easily on contact, and hence an intranasal biopsy was not performed in the outpatient clinic. A preoperative sinus computed tomography scan (Fig. 1) showed a soft tissue mass in the left superior meatus which compressed the left middle turbinate and nasal septum.

The patient subsequently underwent endoscopic sinus surgery. A large reddish mass (Fig. 2) arising from the superior aspect of the left nasal septum was disclosed after adequate preparation of the nasal mucosa. It directly compressed the middle turbinate and obliterated the middle meatus. The tumor was excised through the pedicle by an upturned through-cutting forceps and the adjacent nasal septum mucosa was removed by a microdebrider (suction shaver blade) to create surgical margins. Intra-operative frozen section of the tumor showed a benign lesion. The raw surface of the wound was covered with Surgicell followed by intranasal Merocell packing. Pathologic examination demonstrated a well-circumscribed submucosal lesion composed of a network of vascular spaces surrounded by sheets of round to oval tumor cells. The tumor cells had pale eosinoph-

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the nasal septum, turbinates, or less frequently, the ethmoid sinus [5]. These lesions blanch with pressure. The presenting symptoms in order of their incidence include nasal obstruction, epistaxis, and nasal and facial pain. Some intra-nasal glomus tumors are asymptomatic and are incidental findings on routine physical examination [6-8].

The gross appearance closely resembles that of other vascular tumors, such as angioleiomyoma, hemangioma, and hemangiopericytoma [9]. Due to the possibility of massive bleeding, intranasal biopsy in the outpatient department should be undertaken with great caution. Although extremely rare, aggressive intranasal glomus tumors [9,10] and malignant glomus tumors (glomangiosarcomas) arising from the nasal cavity [11] have been reported.

Improved technology in pathology has facilitated distinguishing this specific neoplasm from other entities, such as hemangiopericytoma and paraganglioma [3]. Microscopically, the tumor cells, referred to as glomus cells, surround small vessels in a manner resembling the normal glomus body. Glomus cells are believed to be derived from modified smooth muscle cells which can be shown by positive immunohistochemical staining for smooth muscle-specific actin [12]. They are typically uniform, large, spherical cells with a clear or eosinophilic granular-staining cytoplasm and centrally located round nuclei. Cellular atypia is not seen in these cells [3]. Two variants of glomus tumor, glomangioma and glomangiomyoma, are characterized by a prominent angiomatous pattern and a vasculomuscular component, respectively.

The treatment of choice for a sinonasal glomus tumor is complete surgical removal either by endoscopic access or a lateral rhinotomy, depending on the size and location of the tumor mass [13]. The results are generally satisfactory. Intra-operative bleeding may be encountered and can be minimized with laser excision [14]. Primary external beam radiotherapy has been proposed for the extremely rare invasive nasal glomus tumor with intracranial extension [10]. Local recurrences have seldom been reported and are related to incomplete excision [9].

In summary, we report here a patient with intranasal glomus tumor, which is extremely rare. Despite the rarity, clinicians have to bear it in mind in the differential diagnosis of intranasal polyps, especially when pain or epistaxis is present. Another distinct entity, paragang-

glioma, is often erroneously described as a glomus tumor, and should be distinguished from it. Almost all sinonasal glomus tumors are benign and can be cured by complete excision. Although extremely uncommon, an aggressive tumor or malignant changes could develop and local recurrence or distant metastasis may ensue.

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