



Glomus Tumor of the Nasal Septum

Po-Jun Chen and Hsin-Chien Chen*

Department of Otolaryngology-Head and Neck Surgery, Tri-Service General Hospital, Taiwan

Keywords

Glomus tumor; Nasal septum; SMA

Pathologic Clinic

A 52-year-old man visited our outpatient clinic with localized pain when he dug left nostril. On physical examination, there is a submucosal nodule about 5 mm X 5 mm in size over the caudal end of nasal septum. The patient received laser-assisted excision of the lesion under local anesthesia. The histologic findings showed a well-circumscribed nodule localized in subepithelial stromal connective tissue (Figure 1A) and the tumor cells were uniformly round and small cells associated with conspicuous vasculature (Figure 1B). Immunohistochemical staining with Smooth Muscle Alfa-Actin (SMA) was positive for tumor cells (Figure 1C) but CD34 was negative for tumor cells (Figure 1D). The histopathologic diagnosis was compatible with glomus tumor. There were no signs of recurrence after post-operative follow-up (Figure 1E).

Glomus tumors are rare soft-tissue neoplasm's that mostly present in adults [1]. It typically occur in soft tissue of the distal extremities, particularly the subungual sites [1,2]. These tumors are typically painful and often causing paroxysmal pain while temperature and pressure changes [2]. They rarely occur in the head and neck region and usually present as a small and painful nodule in superficial soft tissue [3]. In the literature review, 32 cases of intranasal glomus tumor had been reported [3].

The typical histological presentation of glomus tumor is a perivascular and homogenous round cells around with blood vessels [1,2]. They are composed with glomus cell, smooth cells, and vasculature. In the common form of glomus tumor, little vasculature and scant smooth muscle were found. The glomangiomas have more vascular component, and glomangiomyomas are made up of remarkable vascular and smooth muscle constituent [1,2]. Glomus tumors are characteristically and diffusely immunoreactive for smooth muscle α -actin, muscle specific actin and h-caldesmon [1,2]. Besides, vimentin and collagen type IV are expressed and variable expression of CD34 and desmin has also been reported [1,2]. These staining can be performed to exclude differential diagnosis such as vascular leiomyoma or glomangiopericytoma [1]. About 1% of glomus tumors are reported to be malignant [1]. The treatment of choice for symptomatic glomus tumors is total surgical excision. Laser excision and sclerotherapy have also been reported [4]. The goal of surgical excision is the completely removal of the tumor capsule to relief the painful sensation and to minimize the recurrent rate.

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*Correspondence:

Hsin-Chien Chen, Department of Otolaryngology-Head and Neck Surgery, Tri-Service General Hospital, National Defense Medical Center, 325, Section 2, Cheng-Kung Road, Taipei, 114, Taiwan, Tel: 886-2-87927192; Fax: 886-2-87927193;

E-mail: acolufreia@yahoo.com.tw

Received Date: 06 Aug 2018

Accepted Date: 14 Aug 2018

Published Date: 16 Aug 2018

Citation:

Chen P-J, Chen H-C. Glomus Tumor of the Nasal Septum. *Clin Surg*. 2018; 3: 2079.

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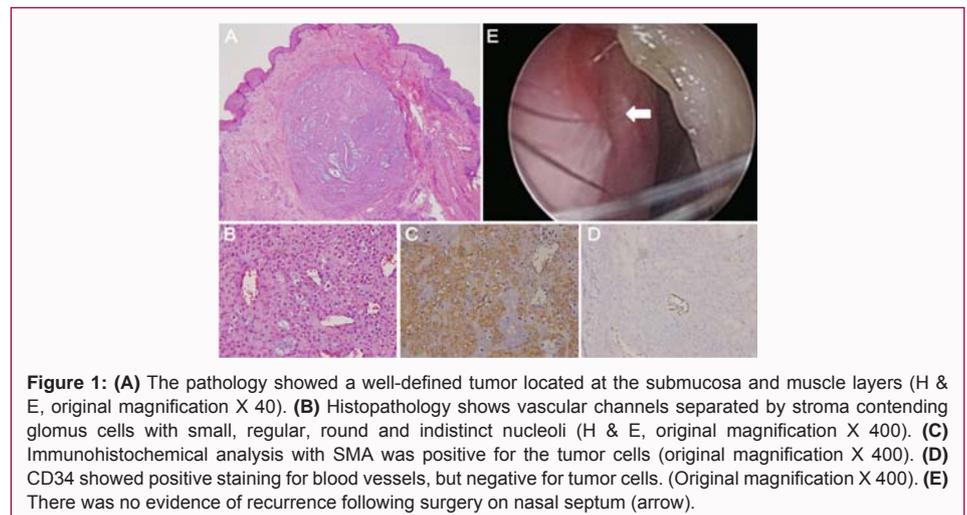


Figure 1: (A) The pathology showed a well-defined tumor located at the submucosa and muscle layers (H & E, original magnification X 40). (B) Histopathology shows vascular channels separated by stroma containing glomus cells with small, regular, round and indistinct nucleoli (H & E, original magnification X 400). (C) Immunohistochemical analysis with SMA was positive for the tumor cells (original magnification X 400). (D) CD34 showed positive staining for blood vessels, but negative for tumor cells. (Original magnification X 400). (E) There was no evidence of recurrence following surgery on nasal septum (arrow).

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