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Case Report / Olgu Sunumu

Glomus tumor of the nasal vestibulum: a rare clinical presentation

Nazal vestibulumun glomus tümörü: Nadir bir klinik tablo

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Glomus tumor is an uncommon benign tumor rising from the glomus bodies. It is most often found on limbs and rarely involve the head and neck. In this report, we present the 31st documented case of a intranasal glomus (nasal vestibular) tumor, an extremely rare localization.

Key Words: Glomus tumor; nasal cavity; nasal vestibulum.

Glomus tümörü, glomus cisimlerinden köken alan nadir bir benign tümördür. Bu tümörler, çoğunlukla ekstremitelerde bulunur ve nadiren baş ve boynu tutar. Bu yazıda oldukça nadir bir yerleşim yeri ile 31. intranazal glomus tümörü (nazal vestibüler) olgusu sunuldu.

Anahtar Sözcükler: Glomus tümörü; nazal kavite; nazal vestibulum.

Glomus tumors are neoplasms of the normal glomus body. Glomus bodies can be found throughout the body but are most highly concentrated in the digits, palms, and soles of the feet.[1] Glomus tumors are rare neoplasms that typically occur in soft tissues of the extremity, particularly the subungual region of the finger tip. They rarely occur in the nose[2] and usually present as a small, painful nodule in the deep dermis or superficial soft tissues.[3] To our knowledge we report the 31st documented case of an intranasal and third documented case of a nasal vestibule glomus tumor in the literature.[4]

CASE REPORT

A 51-year-old woman attended our outpatient clinic with pain localized to the anterior portion of her nose, nasal obstruction for almost one year and a mass that emerged from her left nostril with palpation. She had no systemic disease, history of trauma or surgery and was a nonsmoker. Anterior rhinoscopy revealed a bluish red 5x5 mm swelling arising from the superior aspect of the caudal end of the nasal septum and vestibule with crusting (Figure 1). Both nasal cavities were patent. The patient underwent excision, and histopathologic examination of the lesion revealed a tumoral structure localized in subepithelial stromal connective tissue. The round uniform nucleated, indefinite nucleolated tumor cells had narrow cytoplasm, showed no atypia or mitosis and were arranged like aggregates around vascular structures. On immunohistochemical staining the tumor cells stained diffusely with smooth muscle alfa-actin (αSMA) and vimentin (Figure 2a, b); only the vascular endothelium stained with CD34. The histopathological diagnosis was glomus tumor. One year following surgery there were no signs of recurrence.

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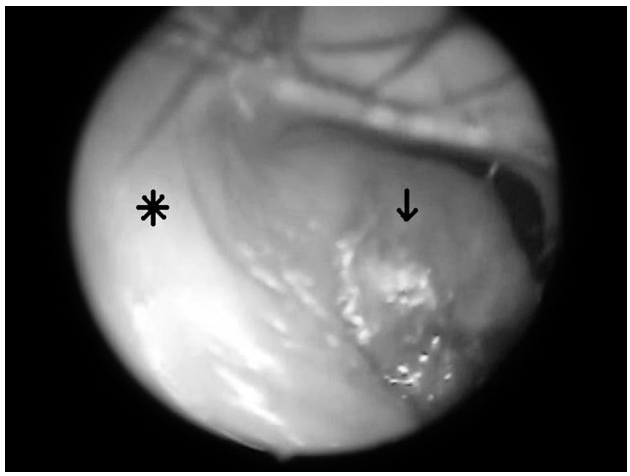

Figure 1. *Tumoral mass localised in nasal vestibulum (arrow shows tumoral mass; asteriks shows nasal vestibulum).*

DISCUSSION

A glomus body is a neuromyoarterial body found within the reticular dermis that functions as a specialized form of arteriovenous anastomosis that serves as a thermal regulator. Glomus tumor is a distinctive benign neoplasm that shows histological resemblance to the normal glomus body.[3] They are rare tumors, occurring most frequently in the extremities and are most commonly described in the subungual area of the digits. In a study of fifty-six extra-digital glomus tumors, most tumors (91%) arose on the extremities, and only one case had an intranasal glomus tumor (1.8%).[5]

Glomus tumors rarely occur in the head and neck region.[6] Like all benign intranasal tumors, nasal glomus tumors produce nasal obstruction, pain and epistaxis. There is no characteristic symptomatology from intranasal glomus tumors. Glomus tumors are often bluish red firm nodules and range in size from 0.2 to 0.4 cm though most are less than 1 cm in diameter as in our case.

Glomangioma is a vascular neoplasm consisting of several nodules that grow in continuity with arteries or veins surrounding them.[7] Histologically they are composed of branching vascular channels enclosed within a stroma bearing nests or larger aggregates of glomus cells, which are round to cuboidal and regular in size and shape with central dark nuclei and pale eosinophilic cytoplasm.[8] Immunohistochemistry reveals positivity with vimentin and smooth muscle actin.[9]

To date 30 intranasal glomus tumors have been reported in the literature.[10] Our case is the 31th reported case. Seventeen of those cases were female and twelve of them originated from the nasal septum. Including our case there are only three reports of glomus tumors located in the nasal vestibule (Table 1).[4,7,8,10-30]

The treatment is complete excision of the tumor. The reported recurrence rate is 10%.[19] Recurrence is usually secondary to incomplete excision. Hayes et al.,[18] reported a case with six recurrences attributed to incomplete excision. In our case, no recurrence occurred through one-year follow-up.

In conclusion, we presented a glomus tumor of the nasal vestibule. Glomus tumor must be in the clinician's mind when a solitary or nodular lesion is present around the nostril and vestibule.

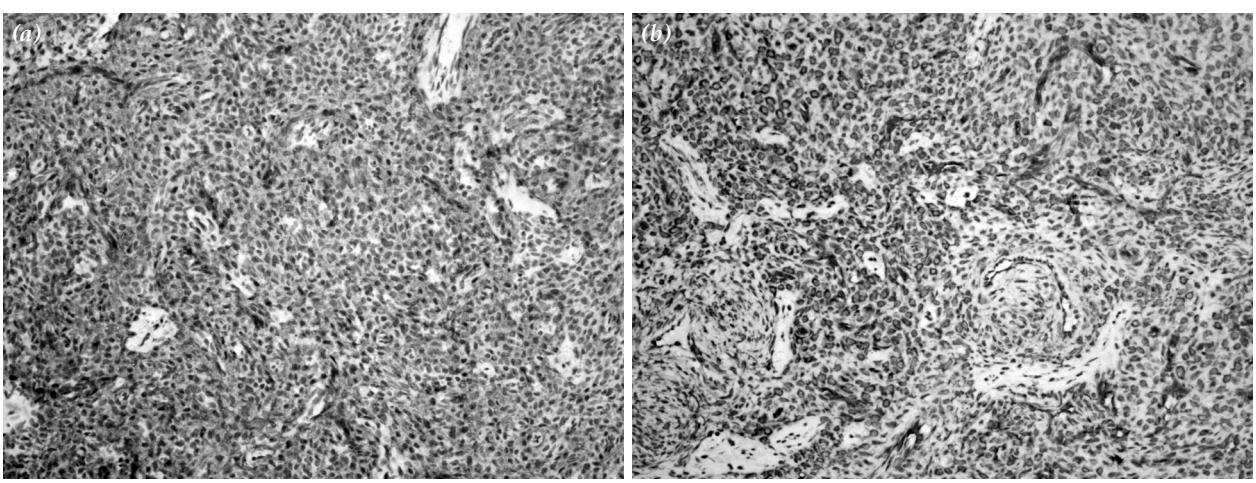

Figure 2. ***(a)*** *Tumoral cells stained with smooth muscle alfa-actin (x 200).* ***(b)*** *Tumoral cells stained with vimentin (x 200).*

Table 1. Sinonasal glomus tumors in the literature

	Age/sex	Location	Symptom
Pantazopoulos[11]	45/F	Inferior turbinate	Obstruction, pain, epistaxis
DeBord[12]	33/F	Posterior choana	Obstruction
Fu and Perzin[13]	71/F	Anterior nasal septum	Asymptomatic
Fleury and Basset[14]	24/M	Nasal septum	Obstruction
Potter et al.[15]	81/F	Nasal septum	Asymptomatic
Morais et al.[16]	66/M	Nasal vestibulum	Asymptomatic
Alarchos Liorach et al.[17]	55/M	Ethmoid sinus	Obstruction
Hayes et al.[18]	32/F	Nasal vestibulum	Obstruction
Arens et al.[19]	40/M	Inferior turbinate	Epistaxis
Shimono et al.[20]	55/M	Ethmoid sinus	Obstruction
Matschiner et al.[21]	9/F	Nasal septum	Epistaxis
	36/F	Nasal septum	Local pain, bleeding
	74/F	Nasal septum	Local pain, bleeding
Chu et al.[22]	74/F	Nasal region	
	57/M	Left middle turbinate	
Nakagawa et al.[8]	42/M	Sphenoid sinus	Obstruction
Constantinidis et al.[23]	66/F	Right middle meatus	Epistaxis
Cullen and Hana[24]	50/F	Inferior turbinate	Epistaxis
Battiata et al.[25]	19/M	Nasal cavity	Epistaxis
Duclos et al.[26]		Nasal septum	
Ahmed et al.[7]	56/F	Nasal septum	Epistaxis
Li et al.[27]	69/F	Nasal septum	Epistaxis
Keelawat et al.[28]	66/F	Nasal septum	Epistaxis
Gaut et al.[29]	87/F	Right posterior choana	Epistaxis
Cho et al.[30]	82/M	Nasal septum	Epistaxis
Wha Koh et al.[10]	66/F	Nasal cavity	Epistaxis
	92/M	Nasal septum	Epistaxis
Xu et al.[4]	38/M	Nasal septum	Obstruction
	14/M	Nasal cavity	Epistaxis
Current case	51/F	Nasal vestibulum	Local pain

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