CASE REPORT

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Intranasal glomangioma*

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SUMMARY

Glomangioma is a benign tumour of the glomus body. It is a relatively rare tumour in the head and neck region and even rarer in the nasal cavity. We present the 13th documented case of an intranasal glomangioma. A 56-year-old woman presented with a lesion on the nasal septum associated with intermittent nasal pain and epistaxis. Local surgical excision was not only diagnostic but therapeutic as it effected a cure. Intranasal glomangioma has no well-defined presenting features but must be borne in mind as a possible rare cause of nasal pain and epistaxis. We also briefly review the clinical presentation, histology and management of such a rare tumour.

Key words: glomangioma, nasal cavity

INTRODUCTION

Glomangioma is an uncommon benign tumour arising from the glomus body. It is most commonly encountered in the extremities particularly under the nails (Kumar et al., 1992). It is rarely found in the head and neck region (Batsakis, 1979). We present the 13th documented case of an intranasal glomangioma and a review of the literature.

CASE REPORT

A 56-year-old Asian lady presented to the Department of Otolaryngology with a 3 year history of a swelling in the right nostril. This swelling was associated with tenderness and intermittent epistaxis. On examination anterior rhinoscopy revealed a 3mm x 2mm swelling arising from the superior aspect of the caudal end of the nasal septum with crusting. The patient was initially prescribed mupirocin ointment. In response to this local topical treatment the crusting resolved leaving a raised nodule with no evidence of any ulceration. The patient was subsequently admitted as a daycase and underwent excision of the lesion under local anaesthesia. Histological examination of the lesion revealed it to be a benign glomangioma which had been completely excised. Macroscopically the specimen was a wedge of squamous mucosa 0.8x0.5x0.3cm containing a pale nodule maximally 0.6cm in diameter. Microscopy revealed a circumscribed, non-encapsulated lesion covered with normal squamous epithelium (Figure 1). It was composed of a network of vascular spaces surrounded by small cells with indistinct cytoplasmic borders and uniform, round nuclei (Figure

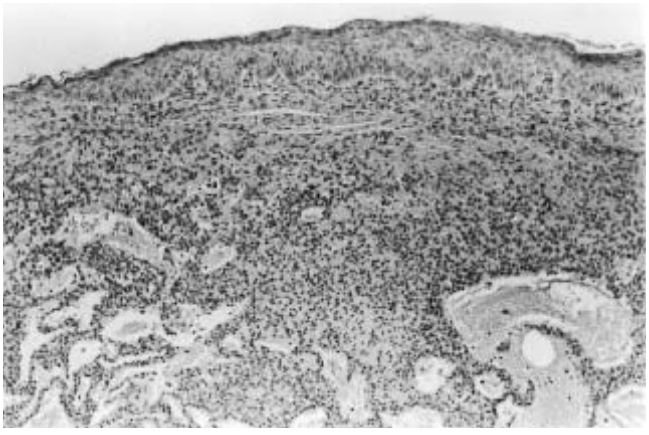

Figure 1. Low power view of glomangioma. Lesion abuts the intact surface squamous epithelium (seen at the top of the photomicrograph). Haematoxylin and eosin stain; x100 magnification.

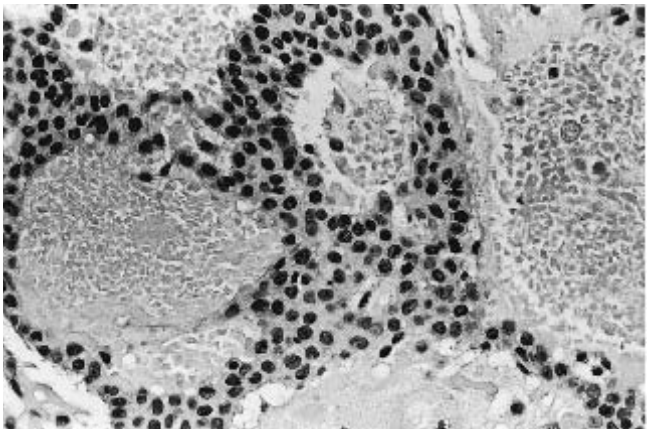

Figure 2. High power view of glomangioma. Uniform small round cells surround dilated vascular channels. Haematoxylin and eosin stain; x400 magnification.

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2). Mitoses and cytological atypia were not evident. Nucleoli were small and inconspicuous. The lesional cells were positive for alpha smooth muscle actin and vimentin; they were negative for cytokeratin, S100 protein, CD34 and desmin. The background stroma showed patchy mucoid degeneration, hyalinisation and haemosiderin pigment, the latter indicating the likelihood of previous trauma to and bleeding within the lesion. Post-operative course was uncomplicated. Two months following surgery there were no signs of recurrence and the patient was discharged.

DISCUSSION

Glomangioma (glomus tumour) is a benign tumour which arises from the smooth muscle cells of a glomus body (Kumar et al., 1992). The glomus body is a specialised arterio-venous anastomosis that has a thermoregulatory function in the dermis throughout the body. The glomangioma originates from the proliferating arterio-venous capillary anastomoses and may represent hyperplasia or hamartomatous development of the glomus body. Glomangiomas are most commonly seen in the nailbeds of fingers and toes, the palmar surfaces and the thenar and hypothenar eminences. These regions correspond to the common sites of origin of solitary glomangiomas (Tsuneyoshi and Enjoji, 1982). These lesions are often painful particularly to touch or changes of temperature.

Glomangiomas rarely occur in the head and neck region (Batsakis, 1979). The incidence of glomangiomas in comparison to all soft tissue tumours of the extremities is 1.6% (Soule et al., 1955) and to all epithelial tumours of the nasal cavity, paranasal sinuses or nasopharynx 0.4% (Fu and Perzin, 1974).

Glomangiomas are small and on the order of 5mm in diameter. When in the skin they are slightly elevated, round, red-blue and firm nodules. Histologically, they are composed of branching vascular channels enclosed within a stroma bearing nests or larger aggregates of glomus cells, which are small, round to cuboidal and regular in size and shape with central dark nuclei and pale eosinophilic cytoplasm. Immunohistochemistry reveals positivity with vimentin and smooth muscle actin. Laminin and type IV collagen (two constituents of basal lamina) outline the cells or small groups of cells (Kumar et al., 1992).

Including this case, there are 13 documented cases of intranasal glomangioma in the literature (Table 1). Seven of these tumours were found in females, the age ranging from 24 to 81 years and 4 (including ours) tumours arising from the nasal septum. Intranasal glomangiomas like all benign intranasal tumours may produce nasal obstruction, pain and epistaxis. However asymptomatic cases have been documented (Fu and Perzin, 1974; Potter et al., 1984; Morais, 1986). In addition to our case, only one other case has previously reported pain associated with nasal glomangioma (Pantazopoulos, 1965) which means pain is not a commonly reported symptom. However such a pathology must be borne in mind for a possible and atypical cause for nasal pain. Intranasal glomangiomas do not have any characteristic symptomatology and no typical features of these tumours have been determined. Hence diagnosis of intranasal glomangiomas is not straightforward.

The recurrence rate of this benign tumour is 10% (Arens et al., 1997). Recurrence is usually secondary to incomplete excision. A case which had 6 recurrences that were attributed to incomplete excision has been documented (Hayes et el., 1993).

The treatment is surgical excision and this is curative if complete excision is achieved.

Table 1. Intranasal glomangiomas.

Source	Year	Age	Sex	Site of tumour	Symptoms
Pantazapoulos	1965	45	F	Inferior turbinate	Obstruction,pain, epistaxis
DeBord	1972	33	F	Posterior choana	Obstruction
Fu and Perzin	1974	71	F	Septum	Asymptomatic
Fleury et al.	1979	24	M	Septum	Obstruction
Potter et al.	1984	81	F	Septum	Asymptomatic
Morais	1986	66	M	Nasal vestibulum	Asymptomatic
Alarcos	1992	55	M	Ethmoid sinus	Obstruction
Hayes et al.	1993	32	F	Nasal vestibulum	Obstruction
Arens et al.	1997	40	M	Inferior turbinate	Epistaxis
Shimono et al.	1998	55	M	Ethmoid sinus	Obstruction
Nakagawa et al.	2000	42	M	Sphenoid sinus	Obstruction
Cullen et al.	2000	50	F	Inferior turbinate	Epistaxis
Present case	2001	56	F	Septum	Pain, Epistaxis

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