

Primary extracranial meningioma of the soft palate

A. KISHORE, F.R.C.S., D. ROY, F.R.C.S.(ORL), B. W. H. IRVINE, F.R.C.S.

Abstract

Extracranial meningiomas comprise two per cent of all meningiomas. Primary extracranial meningiomas are even less common. The authors report the first case of a primary extracranial meningiomas of the soft palate, which presented as an intraoral mass. This was treated by surgical excision and there was no evidence of tumour recurrence at four years of follow-up.

Key words: Meningioma; Palatal neoplasms

Case report

A 44-year-old caucasian woman presented with a five-week history of a painless swelling on the left side of the soft palate just anterior to the tonsil. Physical examination demonstrated a 3 × 2 cm swelling on the soft palate extending up to the posterior edge of the hard palate. It was firm in consistency and had a lobulated surface with intact mucosal covering. The rest of the oral cavity was normal. Examination of the nose, pharynx, orbit and neck was unremarkable. A provisional diagnosis of a minor salivary gland tumour was made.

The patient underwent excisional biopsy of the swelling under general anaesthesia. The mass was found to be firm and encapsulated and shelled out easily. The cavity was left open to heal by secondary intention. Four years later the patient remains asymptomatic and well. There is no clinical evidence of tumour recurrence.

Histopathology

Histopathological examination demonstrated that the tumour was circumscribed and composed of short spindle cells arranged in interlacing fascicles and separated by hyalinized vascular tissue (Figures 1 and 2). These features were consistent with a hyalinized and vascular meningioma. There was no evidence of a malignant phenotype.

Discussion

Meningiomas are a relatively common neoplasm of the nervous system, comprising 18–25 per cent of all primary intracranial or intraspinal tumours.¹ Of these, 20 per cent develop extracranial extension.² Extracranial extra-axial meningiomas, however, comprise approximately two per cent of all meningiomas.³ These have been classified as either primary or secondary (extension or metastasis of an intracranial tumour).⁴ Primary extracranial meningiomas are even less common.

Cases of primary extracranial meningiomas have been reported in the ear,⁵ orbit, parapharyngeal space, and parotid and paranasal sinuses.⁶ The nasopharynx, nasal cavity and paranasal sinuses⁷ can be involved by extracranial meningiomas arising either in situ or secondarily

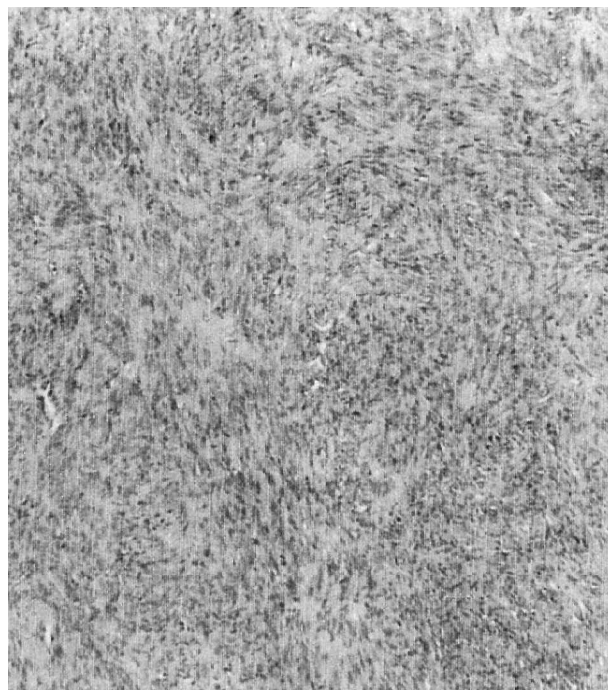


FIG. 1

Interlacing fascicles separated by hyalinized vascular tissue.
(H & E; ×40)

from an orbital primary.³ Intraoral lesions, however, are extremely rare and are thought to represent true ectopic tumours secondary to abnormal cellular differentiation.⁸ Although primary meningiomas of the tonsil have been reported in the past,^{9,10} we report the first case of a primary extracranial meningioma of the soft palate.

Extracranial meningiomas have been theorized to arise from ectopic embryonal cell rests of meningeal tissue, i.e. meningiocyctic cellular rests.¹¹ These include the perineural sheaths, where the nerves run through the foramen of the skull or intervertebral foramina. They may also be embedded within the sac of meningoceles as a developmental error.

From the Department of Otolaryngology, Head and Neck Surgery, Stobhill Hospital, Glasgow, UK.
Accepted for publication: 8 October 1999.

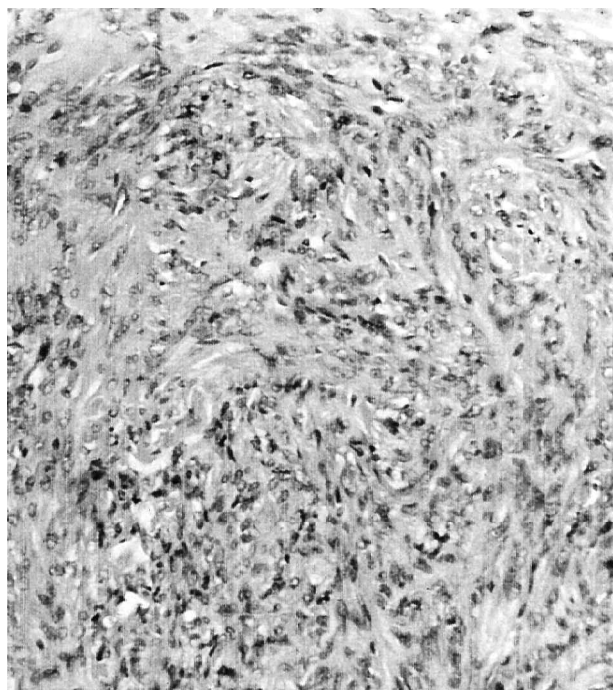


FIG. 2

Fascicles composed of short spindle cells (H & E; $\times 100$).

It has been suggested that meningiomas may also arise from fibroblasts,¹² mesenchymal cells^{13,14} or secondary Schwann-cell differentiation.¹⁵ It has therefore been thought, that meningiocytes, fibroblasts and Schwann cells are all of mesenchymal origin and that meningioma may be regarded as a mesenchymal neoplasm.⁸ This could explain the diverse components of a meningioma as being associated with multipotentiality of mesenchymal tissue.¹⁶

Grossly, meningiomas are well circumscribed and rarely infiltrative. They may be either lobulated or 'en plaque' (diffuse spreading).³ There are no characteristic symptoms. Presentation is similar to that of other benign neoplasms. Diagnosis is confirmed by histological examination. Radiology is beneficial in defining the extent of the lesion. Of particular importance is the relationship of primary extracranial meningiomas to type II neurofibromatosis, any such patient should be evaluated appropriately to rule out this condition.¹⁷

The treatment of choice is surgical excision of the mass, as radiotherapy is not effective in such slow-growing tumours.¹⁸ Tumour recurrence is frequent only in the angioblastic variant.¹⁹ Malignant change has not so far been reported.

Our patient is the first reported case of a primary extracranial meningioma of the soft palate. This was treated by total excision and there is no evidence of tumour recurrence at four years of follow-up. Extracranial meningiomas can be treated satisfactorily in this manner and have an excellent prognosis. There is no evidence so far of malignant change in these neoplasms.

Acknowledgement

The authors would like to thank Dr D. Millan, M.R.C.P. of the Pathology Department for providing the illustrations.

References

- Rubinstein LJ. *Tumours of the Central Nervous System*, Fascicle 6. Washington, DC: Armed Forces Institute of Pathology
- Farr HW, Gray GF Jr, Vrana M. Extracranial meningioma. *J Surg Oncol* 1973;**5**:411–20
- Friedman CD, Constantino PD, Teitelbaum B, Berkold RE, Sisson GA Sr. Primary extracranial meningiomas of the head and neck. *Laryngoscope* 1990;**100**:41–8
- Hoye SJ, Hoar CS, Murray JE. Extracranial meningioma presenting as a tumour in the neck. *Am J Surg* 1960;**100**:486–9
- Tsunoda R, Fukaya T. Extracranial meningioma presenting as a tumour of the external auditory meatus: a case report. *J Laryngol Otol* 1997;**111**:148–51
- Irving RM, Ford GR, Jones NS. Tuberosus sclerosis with primary meningioma of the maxillary antrum. *J Laryngol Otol* 1991;**105**:481–3
- Brown AM, Fordham KC, Lally ET. Meningioma presenting as an intraoral mass. *Oral Surg* 1976;**41**:771–6
- Shuangshoti S, Panyathana R. Ectopic meningiomas. *Arch Otolaryngol, Head Neck Surg* 1973;**98**:102–5
- Schultz-Bischof K, Donath K, Hopker WW. Ectopic meningioma in the palatine tonsil. *Pathologe* 1994;**15**:358–60
- Kaur A, Shetty SC, Prasad D, Nirmala V. Primary ectopic meningioma of the palatine tonsil – a case report. *J Laryngol Otol* 1997;**111**:179–81
- Suzuki H, Gilbert EF, Zimmerman B. Primary extracranial meningioma. *Arch Pathol* 1967;**84**:202–6
- Lapresele J, Netsky MG, Zimmerman HM. The pathology of meningiomas: a study of 121 cases. *Am J Pathol* 1952;**28**:757–91
- Foot NC. Meningioma. *Arch Pathol* 1940;**30**:198–211
- Bailey OT. Histologic sequences in meningioma, with a consideration of the nature of hyperostosis cranii. *Arch Pathol* 1940;**30**:42–69
- Bain GO, Shnitka TK. Cutaneous meningioma (psammoma): report of a case. *Arch Dermatol* 1956;**74**:590–4
- Willis RA. *Pathology of tumours*, 3rd edn. London: Butterworth & Co., 1960
- Constantino PC, Friedman CD. Neurofibromatosis type II of the head and neck. *Arch Otolaryngol Head Neck Surg* 1989;**115**:380–3
- Atherino CCT, Garcia R, Lopez LJ. Ectopic meningioma of the nose and paranasal sinuses (report of a case). *J Laryngol Otol* 1985;**99**:1161–6
- Kepes JJ. *Meningioma – Biology, Pathology and Differential Diagnosis*. Philadelphia: Masson Publishing

Address for correspondence:

Mr A. Kishore,
Department of Otolaryngology, Head and Neck Surgery,
Victoria Infirmary,
Glasgow.

Fax: 0141 2015093