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Primary ectopic meningioma of the palatine tonsil – a case report

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Abstract
Meningiomas can occur at excranial and extraspinal sites such as the nose, nasopharynx and paranasal sinuses. Meningioma of the tonsil has seldom been described. We report a case of ectopic meningioma of the left palatine tonsil, in a 50-year-old male with no clinical or radiological evidence of an intracranial lesion. Follow-up at six months revealed no evidence of recurrence.

Key words: Meningioma; Tonsil

Introduction

Meningiomas occurring outside the cerebrospinal axis can be primary at an ectopic site or secondary extending from an intracranial lesion. Some of the known, though rare, ectopic sites for meningiomas are the paranasal sinuses, nasal cavity, nasopharynx and parapharyngeal tissues (Perszin and Pushparaj, 1984; Rorat *et al.*, 1991). A case of primary meningioma of the palatine tonsil is reported here, to highlight a very unusual location of the neoplasm and its histological differentiation from some of the mesenchymal tumours more common in this location.

Case report

A 50-year-old male complaining of progressive high dysphagia and odynophagia presented himself to our Department of Otolaryngology. High dysphagia had been present for one month and about three weeks later he began to complain of odynophagia and 'swelling', in the throat. The patient denied history of upper respiratory tract infection, fever or laryngeal symptoms. He was a known diabetic and hypertensive.

On examination, a reddish swelling was noted on the left palatine tonsil. The surface of the mass was irregular with ulceration and necrosis on its medial aspect. The anterior pillar, soft palate and right palatine tonsil were apparently uninvolved. Neck, nose and ear examination revealed no abnormality. Panendoscopy and computed tomography (CT) scan were normal except for the lesion in the left palatine tonsil. Other investigations included a normal full blood count and normal X-ray of the paranasal sinuses and chest.

Tonsillectomy was performed. It was easy to separate the tonsil from the bed. The capsule seemed to be preserved. The tissue was sent for histopathological examination.

Histopathology

Histopathological examination of the mass showed tonsillar tissue with an unencapsulated neoplasm composed of sheets of ovoid to spindle-shaped cells with fine nuclear chromatin and ill-defined cell membranes, forming nests and many distinct whorls (Figures 1 and 2). The stroma was scanty with little collagen and lacked myxoid

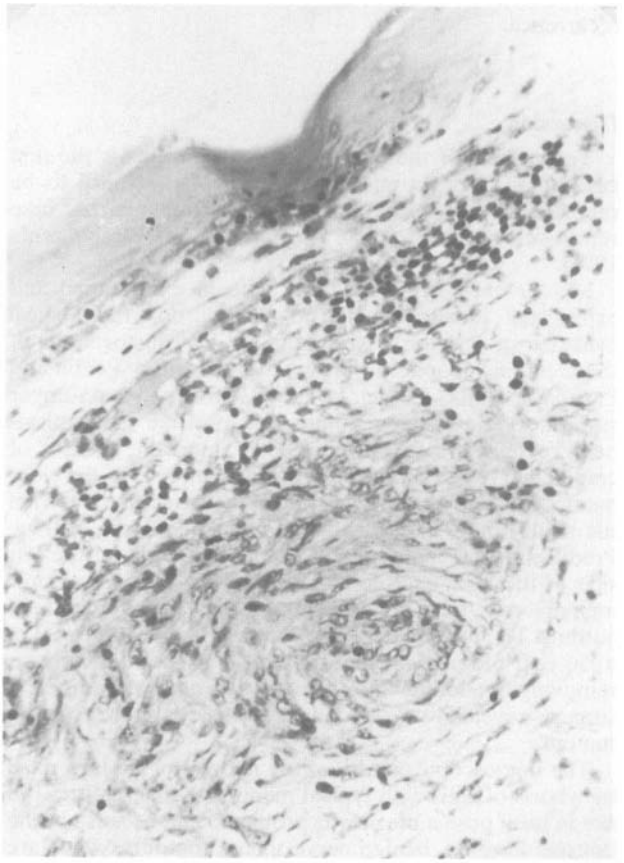

FIG. 1
Tonsillar epithelium with underlying lymphoid tissue and the neoplasm. (H & E; × 250).

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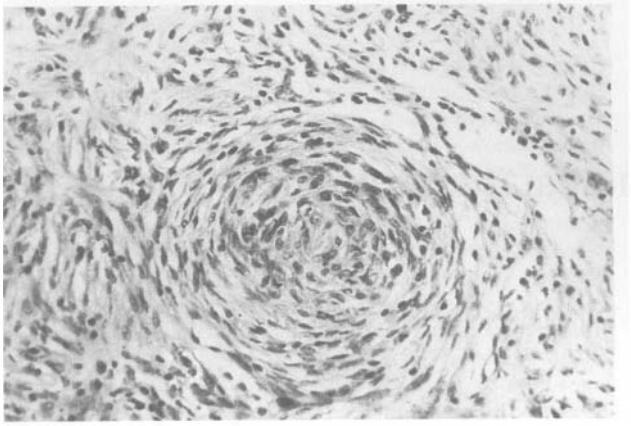

FIG. 2

The neoplasm is composed of oval to spindle-shaped cells forming distinct whorls. (H & E; × 250).

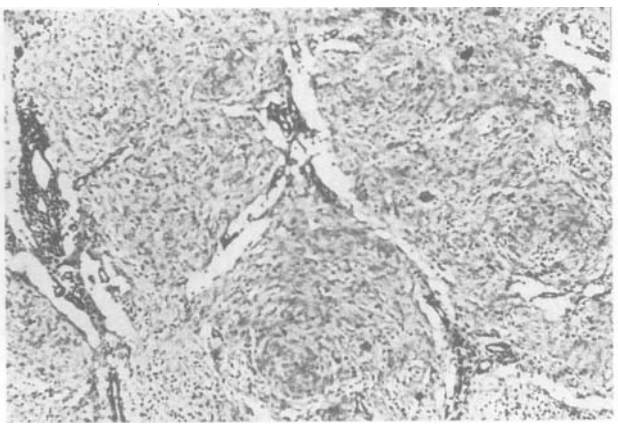

FIG. 3

Silver stain demonstrates sparse reticulin fibres between the neoplastic cells. Perivascular reticulin is well demonstrated. (× 250).

areas. Nuclear palisading was not observed. Psammoma bodies were not seen.

Ulceration was present. Masson's trichrome staining showed a mixed reaction indicating moderate collagen content. Silver staining for reticulin revealed absence of fibres in the whorls (Figure 3).

Based on the above cytological and architectural features, a histopathological diagnosis of transitional meningioma of the tonsil was made. Following this, a cerebral CT scan was done which revealed no evidence of an intracranial lesion. At present, six months after surgery, the patient is doing well with no evidence of local recurrence.

Discussion

To the best of the authors' knowledge, this is the first case of primary ectopic meningioma of the tonsil to be reported in the English literature, the single earlier case report being in the German language (Schulz-Bischof *et al.*, 1994).

Meningiomas are known to arise in extracranial and extraspinal locations with no clinical nor radiological evidence of a lesion in the neuraxis. The histogenesis of these ectopic neoplasms has been discussed by Perzin and Pushparaj (1984) in their comprehensive paper on upper respiratory tract meningiomas, the possible mechanisms being extension of arachnoid cells along the sheaths of cranial nerves or of vessels during embryonic development, and trapping of arachnoid cells extracranially when the skull bones fuse with subsequent neoplastic change. Predilection for male patients, tendency to affect the left side of the body and good prognosis for primary ectopic meningiomas have also been pointed out by the same authors. The present neoplasm occurred in the left tonsil of a 50-year-old male. The surgeon had no difficulty in removing the nodule *in toto*. Follow-up at six months after surgery revealed no evidence of residual or recurrent tumour.

The microscopic picture of the neoplasm, characterized by whorls of cells with typical meningothelial features did not in itself pose a diagnostic problem. Yet, because of the unusual location, benign nerve sheath tumours, which are more common to the site were considered in the differential diagnosis. The present tumour lacked a fibrous stroma and neuroid structures clinically described in neurofibromas (Prose *et al.*, 1957; Enzinger and Weiss, 1983). Nor did the tumour show the nuclear palisading, myxoid areas or the rich reticulin network of a typical schwannoma (Perzin *et al.*, 1982; Perzin and Pushparaj, 1984; Weller, 1990). Because of the prominent whorls, the neoplasm had to be differentiated from an extracutaneous Pacinian neurofibroma (Prichard and Custer, 1952; Prose *et al.*, 1957). The whorls in Pacinian neurofibroma consist of collagen lamellae with progressive peripheral widening of the space between. The whorls in the present neoplasm lacked these features and were more cellular than the mature organoid structures of Pacinian neurofibroma. They also lacked the large central cellular areas with loss of polarity of cells described in the small, immature corpuscles of Pacinian neurofibroma. Moreover, the stroma in Pacinian neurofibroma is described as fibrous with immature neuroid structures, and a wide reticulin network. These features were absent in the neoplasm reported here.

Other mesenchymal tumours such as fibrous histiocytoma (Perzin and Fu, 1980), did not enter the differential diagnosis, as the present neoplasm was microscopically quite distinct from these.

Conclusion

This report documents an unusual site of primary ectopic meningioma *viz* the palatine tonsil. Differential diagnosis of meningioma in this location is discussed, with special reference to neurofibromas. This is relevant from points of view of management and prognosis. If an intracranial or spinal component is ruled out, prognosis for such a primary ectopic meningioma is good, whereas the prognosis for neurofibroma would depend on the clinical setting and associated conditions such as Von Recklinghausen's disease or multiple endocrine neoplasia.

References

Enzinger, F. M., Weiss, S. W. (1983) *Soft Tissue Tumours.* 1st Edition, C. V. Mosby Co., St. Louis, Toronto, London, pp 597–601.

Perzin, K. H., Fu, Y. S. (1980) Nonepithelial tumours of the nasal cavity, paranasal sinuses and nasopharynx. A clinicopathologic study. XI, Fibrous histiocytoma. *Cancer* **45:** 2616–2626.

Perzin, K. H., Panyu, H., Wechter, S. (1982) Non-epithelial tumours of the nasal cavity, paranasal sinuses and nasopharynx. A clinicopathologic study. XII, Schwann cell tumours (neurilemmoma, neurofibroma, malignant schwannoma). *Cancer* **50:** 2103–2202.

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Perzin, K. H., Pushparaj, N. (1984) Nonepithelial tumours of the nasal cavity, paranasal sinuses and nasopharynx. A clinicopathologic study. XIII, Meningiomas. *Cancer* **54:** 1860–1869.
Prichard, R. W., Custer, P. (1952) Pacinian neurofibroma. *Cancer* **5:** 297–301.
Prose, P. H., Gherardi, G. J., Coblenz, A. (1957) Pacinian neurofibroma. *American Medical Association Archives of Dermatology* **76:** 65–69.
Rorat, E., Yang, W., De La Torre, R. (1991) Fine needle aspiration cytology of parapharyngeal meningioma. *Acta Cytologica* **35:** 497–500.
Schulz-Bischof, K., Donath, K., Hopker, W. W. (1994) Ectopic meningioma of the tonsil. *Pathologe* **15:** 358–360.
Weller, R. O. (1990) Tumours of the nervous system. In *Systemic Pathology. Nervous System, Muscles and Eyes.* Vol. 4, 3rd Edition (Symmers, W. St. C., ed.) Churchill Livingstone, pp 462–464.

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