PostScript

LETTERS TO THE EDITOR

Ganglioneuromatous hamartoma of the tongue

Ganglioneuroma is a rare tumour of autonomic ganglia arising in the sympathetic chain or the parasympathetic nervous system.¹ So far, no authentic solitary lesion has been recorded in the tongue.

A 30-year-old man presented with an asymptomatic submucosal mass in the right lateral border of the tongue, measuring 1.3 cm in diameter (fig 1A). The lesion was present since birth and had not changed in size recently. Neither the patient nor his family members had any relevant systemic disease. No recurrence has been noted 5 years after simple excision. Histologically, the tumour was composed of an encapsulated proliferation of myxoid neurofibromatous tissue. Mature ganglion cells varying in size, were randomly distributed, singly and in nests, throughout the loose fascicles of wavy neural cells. These cells were more prominent at the periphery (fig 1B). Occasionally, they contained vacuoles and Nissl substance, most of which were surrounded by satellite cells (fig 1C). Binucleate cells were present focally (fig 1D). No immature neuroblastic cells were observed. Ganglion cells showed diffuse immunostaining for neurone-specific enolase (fig 1E) and CD56, with variable reactivity for neurofilament protein (fig 1F) and chromogranin A (fig 1G). S-100 protein, glial fibrillar acidic protein and CD57 highlighted the schwannian element, but not ganglion cells (fig 1H).

A search through published accounts uncovered only a single convincing example of primary ganglioneuroma of the oral mucosa; this lesion arose in the upper lip of a 3-year-old boy.² It is well recognised that diffuse ganglioneuromatosis of the gastrointestinal tract, including the oral cavity, may occur in case of an inherited disease, multiple

endocrine neoplasia type IIb, neurofibromatosis type I and Cowden's disease.¹ None of these diseases were evident in this patient.

The difficulty in confirming the diagnosis results from the fact that autonomic ganglia are normal constituents in the tongue.^{4,5} As the lateral aspect is often subjected to trauma, a reactive origin as a traumatic neuroma, with the involvement of ganglion cells in the vicinity, namely pseudoganglioneuroma, has been postulated.³ Similarly, pre-existing ganglia entrapped by solitary neurofibroma must be excluded.¹ The key differentiating features rely on the definite capsule and the random distribution and multinucleation of ganglion cells in true ganglioneuroma, as seen in this tumour. Ganglioneuromatous maturation in neuroblastoma can readily be distinguished by the lack of immature elements.

The microscopic finding of an occasional tortuous neural structure, with many ganglion cells, has been reported in the tongue, and is designated as "subepithelial nerve plexus"⁴ or "subgemmal neurogenous plaques".⁵ This anatomical variation, when hypertrophic, may mimic neural tumours, but has received less attention. It is a small (<3.5 mm), non-encapsulated rectangular mass, exclusively juxtaposed with the epithelial undersurface of foliate papillae. Unlike in the lesion we describe, naturally existing ganglion cells in each structure are very few in number (<5) and are arranged singly. Given that the tumour was congenital and stable for 30 years, the primary lingual ganglioneuroma described probably represents a hamartomatous process of such aggregates.

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Figure 1 (A) Submucosal mass of the lateral tongue. (B) Well-encapsulated neurofibromatous tumour with numerous ganglion cells. (C) Cytoplasmic vacuole. (D) Binucleate cell. Ganglion cells are highlighted on immunostains for neurone specific enolase (E), neurofilament protein (F) and chromogranin A (G), but not for S-100 protein (H).

References

- 1 Scheithauer BW, Woodruff JM, Erlandson RA. *Tumors of the peripheral nervous system*. Washington, DC: Armed Forces Institute of Pathology, 1999:259-76.
- 2 Shiba R, Manabe T, Sakoda S. Ganglioneuroma of the lip. *J Jpn Stomatol Soc* 1988;37:334-7.
- 3 Daneshvar A. Pharyngeal traumatic neuromas and traumatic neuromas with mature ganglion cells (pseudoganglioneuromas). *Am J Surg Pathol* 1990;14:565-70.
- 4 McDaniel RK. Subepithelial nerve plexus (with ganglion cells) associated with taste buds. *Oral Surg Oral Med Oral Pathol* 1999;87:605-9.
- 5 Triantafyllou A, Coulter P. Structural organization of subgemmal neurogenous plaques in foliate papillae of tongue. *Hum Pathol* 2004;35:991-9.

Neither inadequacy of biopsy nor inaccuracy of reporting predict non-response to small-cell carcinoma chemotherapy

Lung cancer is the second most common cancer in the UK, accounting for one in seven new cancer diagnoses and 22% of cancer deaths (<http://info.cancerresearchuk.org/cancerstats>). Small-cell carcinoma (SCC) accounts for 20% of lung cancers, with most of these presenting at an advanced stage and being treated using chemotherapy and radiotherapy. About 25% of patients do not respond to chemotherapy. The reasons for this are uncertain and may be because of the heterogeneity of the disease or inaccurate pathological diagnosis, which may partly be related to adequacy of the specimen. A recent study of histological typing of lung tumours showed that a high level of agreement existed between observers for SCC, but that across all the specimens they reviewed, misclassification was higher for smaller specimens than resections.¹ We conducted a review of cases of SCC referred to the Edinburgh Cancer Centre, UK, to determine whether non-response to chemotherapy in our series was related to misclassification of the tumour on diagnostic biopsy.

Biopsy specimens from 76 patients who had received chemotherapy were reviewed by three or, in some cases, four pathologists (TND, HM, DMS and WAW). All the specimens were assessed for adequacy of biopsy and confirmation of diagnosis of SCC. Disagreement between reviewers was settled by conference. In 70 cases, we believed that the biopsy was adequate and we could confirm the diagnosis of SCC. We identified six cases in which we were unable to confirm the diagnosis of SCC. Two cases of biopsy were judged to be inadequate, one a bone marrow trephine and one a liver fine-needle aspiration. Adequacy of biopsy was not related to size because a relatively large biopsy contained few assessable cells, reflecting errors in targeting. In two cases we were unable to confirm the diagnosis and in two we were unable to reach a consensus opinion. The survival data from these six patients in whom we did not confirm the diagnosis did not differ considerably from those in whom we could confirm the diagnosis. (Median survival interquartile range for the six unconfirmed cases was 278 (130-344) days as against 371 (210-519) days for the 70 confirmed cases.)