

Editorial

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The biologic behavior of lesions in the head and neck cannot always be predicted by histologic appearance. Examples of lesions that histologically appear benign, but may show aggressive and even malignant behavior include paraganglioma [1–3] and meningioma [4, 5], both of which may metastasize distantly in a small percentage of cases. Likewise, pleomorphic adenoma of the parotid gland [6–8] may also demonstrate distant metastases without an obvious change in what would otherwise appear as benign histology.

Carcinoid tumor of the middle ear [9] is, unlike its counterpart in the abdomen, very rarely metastatic. However, carcinoid metastases to local lymph nodes have been demonstrated, and again the histopathology, although consistent with a low-grade malignancy, is not predictive of its metastatic potential.

Conversely, malignant-appearing lesions may demonstrate a benign behavior. Examples include nodular fasciitis [10, 11] which, because of its multiple spindle cells

appearing on histology, may be confused with a sarcoma. However, it reacts in a benign fashion. Similarly, pseudoepitheliomatous hyperplasia in the external ear canal [12] or oral cavity [13] may be confused with a squamous cell carcinoma histologically despite its benign biologic behavior.

In this volume, Manni and associates have described infiltrating aggressive epitheliosis of the temporal bone in which a histologically nondysplastic lesion acted in a ‘malignant’ manner by virtue of extensive bone destruction and local invasion. In our medical center we have seen examples of this entity, which have been signed out as either verrucous carcinoma or as a well-differentiated squamous cell carcinoma. A similar case was also reported by Arkin et al. [14] with dural and cerebellar invasion. This case report is useful in reminding us that pathologic diagnosis and indeed clinical management are an art as well as a science, and that the eventual biologic behavior of a lesion is not always predicted by histopathology.

References

- Merino MJ, LiVolsi VA: Malignant carotid body tumors: report of two cases and review of the literature. *Cancer* 1981;6:1403–1404.
- Kliwer KE, Cochran AJ: A review of the histology, ultrastructure, immunohistology, and molecular biology of extra-adrenal paragangliomas. *Arch Pathol Lab Med* 1990;114:308.
- Ferlito A, Barnes L, Wenig BM: Identification, classification, treatment, and prognosis of laryngeal paraganglioma. Review of the literature and eight new cases. *Ann Otol Rhinol Laryngol* 1995;104:84–85.
- Miller DC, Ojemann RG, Proppe KH, McGinnis BD, Grillo HC: Benign metastasizing meningioma. Case report. *J Neurosurg* 1985;62:763–766.
- Som PM, Sacher M, Strenger SW, Biller HF, Malis LI: ‘Benign’ metastasizing meningiomas. *AJNR Am J Neuroradiol* 1987;8:127–130.

- 6 Marioni G, Marino F, Stramare R, Marchese-Ragona R, Staffieri A: Benign metastasizing pleomorphic adenoma of the parotid gland: a clinicopathologic puzzle. *Head Neck* 2003;25:1071–1076.
- 7 Klijanienko J, El-Naggar AK, Servois V, Rodriguez J, Validire P, Vielh P: Clinically aggressive metastasizing pleomorphic adenoma: report of two cases. *Head Neck* 1997;19:629–633.
- 8 Olsha O, Gottschalk-Sabag S: Metastatic pleomorphic adenoma. *Invasion Metastasis* 1995;15:163–166.
- 9 Mooney EE, Dodd LG, Oury TD, Burchette JL, Layfield LJ, Scher RL: Middle ear carcinoma: an indolent tumor with metastatic potential. *Head Neck* 1999;21:71–72.
- 10 Grotz KA, Al-Nawas B, Bettendorf U: Fasciitis nodularis pseudosarcomatosa. A difficult differential diagnosis in the head and neck. *Mund Kiefer Gesichtschir* 2004;8:41–45.
- 11 Nair P, Barrett AW, Theodossy T: Oral nodular fasciitis: case report. *Br J Oral Maxillofac Surg* 2004;42:360–362.
- 12 Gacek MR, Gacek RR, Gantz B, McKenna M, Goodman M: Pseudoepitheliomatous hyperplasia versus squamous cell carcinoma of the external auditory canal. *Laryngoscope* 1998;108:620–623.
- 13 Brannon RB, Anand PM: Oral granular cell tumors: an analysis of 10 new pediatric and adolescent cases and a review of the literature. *J Clin Pediatr Dent* 2004;29:69–74.
- 14 Arkin CF, Millard M, Medeiros LJ: Giant invasive cholesteatoma. Report of a case with cerebellar invasion. *Arch Pathol Lab Med* 1985;109:960–961.