LETTERS TO THE EDITOR

Salivary duct adenocarcinoma

Salivary duct adenocarcinoma is a distinctive but rarely reported clinicopathological entity.¹⁻⁴ The tumour is defined as a high grade malignancy and shares similar histopathological features with the infiltrating duct carcinoma of the breast. The neoplasm is thought to arise from the excretory ducts of major salivary glands, primarily the parotid gland.⁴

We recently observed a typical case with an extremely aggressive clinical course. A 56 year old man presented with a tumour mass on the left side of his neck. The tumour was 6 cm in maximum diameter. Physical examination along the lower neck showed that he had lymphadenopathy. Radical parotidectomy and bilateral lymphadenectomy were performed. Macroscopically, the mass was a firm, indurated, and infiltrating neoplasm with necrotic areas. Peripheral areas of undamaged parotid gland were observed. Microscopic study (figure) showed the tumour to be an uncapsulated neoplasm composed mainly of cellular lobes and nests with solid, trabecular, or cribriform arrangement. Comedo necrosis was seen focally. A desmoplastic reaction was present in the stroma. Proliferating cells exhibited prominent atypia and mitoses. Lymph node metastases showed similar features. The patient died of neoplastic dissemination eight months later.

First described by Kleinsasser *et al* in 1968,¹ salivary duct adenocarcinoma is rare. To date, about 30 cases have been reported.¹⁻⁴ Its scarcity is reflected by the fact that no specific mention about this neoplasm appears in the largest series of salivary gland tumours reported by Eveson and Cawson in 1985.⁵

The hypothesis proposed by Batsakis about the histogenetic development of salivary gland and its derived tumours has been widely accepted.^{6,7} According to this author,⁷ myoepithelial cells play a decisive part in the development of salivary gland tumours, and probably modify their prognosis. In this sense salivary carcinomas in which myoepithelium plays an active part are, like those in the breast, low grade neoplasms arising from the intercalated duct unit.⁷ On the other hand, excretory duct and its presumptively derived tumours, such as duct adenocarcinomas, squamous carcinomas, and mucoepidermoid carcinomas, are devoid of a myoepithelial component,^{4,7} and characteristically, all of them take an aggressive clinical course.⁷

Morphologically, salivary duct adenocarcinoma closely resembles its mammary counterpart. In this sense Garland *et al* believe that epithelial nest arrangement and comedo-type central necrosis are the most useful criteria for diagnosis,³ but other patterns such as solid, cribriform, desmoplastic, and papillary are also seen.

J I LOPEZ
M NEVADO
B EIZAGUIRRE
Servicio de Anatomía Patológica,
Hospital Civil de Bilbao,
48013 Bilbao, Vizcaya, Spain

- 1 Kleinsasser O, Klein HJ, Hubner G. Speicheldrüsenkarzinome: Ein den milchgängerkarzinomen der Brustdrüse analoge Gruppe von Speicheldrüsen-tumoren. *Archiv für klinische und experimentelle ohren-nasen-und Kehlkopfheilkunde* 1968;192:100-15.
- 2 Chen KTK, Hafez R. Infiltrating salivary duct carcinoma. A clinico-pathologic study of five cases. *Arch Otolaryngol* 1981;107:37-9.
- 3 Garland TA, Innes DJ Jr, Fechner RE. Salivary duct carcinoma: An analysis of four cases with review of literature. *Am J Clin Pathol* 1984;81:436-41.
- 4 Hui KK, Batsakis JG, Luna MA, Mackay B, Byers RM. Salivary duct adenocarcinoma: A high grade malignancy. *J Laryngol Otol* 1986;100:105-14.
- 5 Eveson JW, Cawson RA. Salivary gland tumours. A review of 2410 cases with particular reference to histological types, site, age and sex distribution. *J Pathol* 1985;146:51-8.

- 6 Batsakis JG. Salivary gland neoplasia: An outcome of modified morphogenesis and cyto-differentiation. *Oral Surg* 1980;49:229-32.
- 7 Batsakis JG, Regezi JA, Luna MA, El-Naggar A. Histogenesis of salivary gland neoplasms: A postulate with prognostic implications. *J Laryngol Otol* 1989;103:939-44.

Alcian blue: reliable rapid method for marking resection margins

Biopsy specimens taken from women with mammographic abnormalities found on screening require careful macroscopic and microscopic evaluation.¹ Accurate identification of resection margins is vital, and several methods of marking resection margins have been reported,²⁻⁴ each of which has several disadvantages. India ink is messy and takes a long time to dry. Artists' pigments permit differential marking but are expensive and being radio-opaque are unsuitable for specimens that are subsequently x rayed.

In our laboratory breast lumps are x rayed whole after overnight fixation in 10% buffered formalin. They are then dipped into a container of 1% alcian blue (BDH Limited, Poole, Dorset) for a few seconds, removed, and dried with paper towels. Despite drying, sufficient stain remains on the outer surface (figure). The specimen is then sliced and the slices x rayed. After routine processing the alcian blue is clearly visible along the resection margins in sections stained with haematoxylin and eosin.

We have found this system of marking to be reliable, quick, and cheap. Tissue can be x rayed after marking and the alcian blue is clearly visible in the stained sections. Dipping the specimen into alcian blue gives a more uniform covering and is quicker than painting with a brush. Dipping into alcian blue, however, is not suitable for specimens that have been incised in the operating theatre (a practice we deplore); for these, the alcian blue can be painted on with a brush.

This method has proved so successful in our laboratory that we now use it routinely on any specimen where excision margins are relevant and likely to be difficult to assess.

PJ BIRCH
MJ JEFFREY
MIJ ANDREWS
Department of Histopathology,
Queen Alexandra Hospital,
Cosham, Portsmouth PO6 3LY

- 1 Department of Health and Royal College of Pathologists Working Group. 1989. *Pathology reporting in breast cancer. Screening draft guidance*. London: DHS/RCP, 1989.
- 2 Paterson DA, Davies JD. Marking planes of surgical excision on breast biopsy specimens: use of artists' pigments suspended in acetone. *J Clin Pathol* 1988;41:1013-16.

Microscopic view of a neoplastic duct showing comedo necrosis (arrows). (Haematoxylin and eosin.)

Cross section of a specimen showing staining of resection margins and central tumour.