Intraduct papilloma of parotid gland

P H King, J Hill

Abstract

Intraduct papillomas of the salivary glands are rare solitary tumours. Most of the reported cases have occurred in minor salivary glands. A case which occurred in the parotid gland is reported. Fine needle aspiration was performed on this tumour, and the cytological appearances of the aspirate were suggestive of an adenoid cystic carcinoma. This is an important potential diagnostic pitfall which should be borne in mind when interpreting aspirates from salivary gland tumours.

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Case report

An 87 year old man presented with a six month history of an isolated mass at the angle of the jaw on the left. The mass was painless but had slowly increased in size. He was generally frail, but had no specific medical history.

Clinical examination showed a 2 cm³, well circumscribed, firm mass which appeared confined to the tail of the parotid. Facial nerve function was intact, and examination of the ear, nose, and throat system was other-

wise normal.

Fine needle aspiration of the mass was performed. This yielded a good sample showing numerous three dimensional branching clumps of cells with small, ovoid regular nuclei, and central nucleoli (fig 1A). The cytoplasm was indistinct. Scattered single cells were present. There were round clear mucoid globules in a few of the cellular clumps (fig 1B). The appearances were felt to be suggestive of an adenoid cystic carcinoma.

In view of his age and frailty, it was felt that radical surgery was not justified with a clinically well defined mass. He therefore underwent a partial parotidectomy. The mass was excised with the surrounding tail of the parotid gland.

Macroscopically, this was a well circumscribed, solid, white tumour measuring 2.5 × 2 cm. There was no evidence of infiltration of the surrounding salivary parenchyma.

Microscopically, the tumour was encapsulated. It had a papillary architecture (fig 2A) with hyalinised, vascular stromal cores covered by a double layer of cells. The inner layer of cells had abundant clear cytoplasm and vesicular nuclei with prominent nucleoli. The outer layer consisted of smaller cells with scanty acidophilic cytoplasm, and dark, oval or round nuclei (fig 2B). In areas the stromal cores contained pools of mucoid material. There was no evidence of mitotic activity, nuclear atypia, or capsular invasion.

The local histopathologists all agreed that this was a benign tumour, but had not seen a similar lesion previously. Representative sections were sent to the British Salivary Gland Tumour Panel. Their opinion was that this was an example of an intraduct papilloma.

Postoperatively there was weakness of the marginal mandibular branch of the facial nerve, but this recovered spontaneously. There were no other problems and no signs of recurrent disease after six months.

Discussion

The intraduct papilloma is a rare, solitary tumour arising from the excretory ducts of salivary glands. Most of the previously reported cases have occurred in minor salivary glands.¹⁻⁸ Their locations have included the palate, the buccal mucosa, the upper lip and the lower lip. The major salivary glands are unusual sites for these neoplasms, but cases have been previously recorded in the parotid and submandibular glands.⁸

The tumour consists of papillary intraduc-

Department of
Histopathology,
Department of Ear,
Nose and Throat
Surgery
P H King
J Hill

Sunderland Royal
Infirmary
P H King
J Hill

Correspondence to:
Dr P H King University of
Newcastle upon Tyne
School of Pathological
Sciences Royal Victoria
Infirmary Newcastle upon
Tyne NE1 4LP

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Figure 1 (A) Clumps of cells with small, ovoid regular nuclei and central nucleoli (PAP). (B) A clear mucoid globule surrounded by small, uniform cells (PAP).

Figure 2 (A) A papillary architecture is evident. The capsule is present at the lower end (haematoxylin and eosin). (B) Stromal cores covered by a double layer of cells. The inner layer has abundant clear cytoplasm (haematoxylin and eosin).

tal projections with connective tissue cores that extend into widely dilated ducts or cystic spaces. The papillae are lined by one or two layers of cuboidal or squamous epithelium. The histological appearances are similar to

those seen in a solitary intraduct papilloma of the breast. The differential diagnosis includes sialadenoma papilliferum, papillary cystadenoma, and inverted ductal papilloma.

These are thought to be benign tumours, and there have been no instances of recurrences in any of the reported cases to date. The case mentioned by Ward and Hendrick¹ was stated to contain early malignant change, but there is no detailed documentation.

Fine needle aspiration was not performed in any of the previous cases. In our case the cytology was misleading because of the presence of mucoid globules in some of the cellular clumps. This is a feature associated with adenoid cystic carcinomas, but it is evident that the rare alternative possibility of an intraductal papilloma should be considered.

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