

## A case of accessory parotid gland tumor

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**We herein describe a case of accessory parotid gland tumor, including diagnosis and surgical approach. The accessory parotid gland is salivary tissue separated from the main parotid gland and lying on masseter muscle. It has secondary duct emptying into the Stensen's duct. The accessory parotid gland exists in 21-61 % of individuals. However, the appearance of an accessory parotid tumor is rare, with a reported frequency of 1-7.7 % of all parotid gland tumors. Surgical resection is the treatment of choice for the accessory parotid gland tumor. It is important to identify the buccal branch of the facial nerve to avoid injury to the facial nerve. The tumor in our case was surgically resected without facial nerve injury. The histopathological diagnosis was pleomorphic adenoma.**

**Key words :** accessory parotid gland, pleomorphic adenoma, facial nerve

### INTRODUCTION

The accessory parotid gland is a small unit of salivary gland tissue separated from the main parotid gland and lying on the masseter muscle [1]. The accessory parotid gland is not rare, according to cadaver studies, but neoplasm in the accessory parotid gland is rare. Herein, we describe a case of accessory gland tumor.

### CASE REPORT

A 67-year-old woman presented with a mass in the right cheek that had appeared about 3 months earlier. Physical examination disclosed a 20 × 20 mm mobile elastic hard mass. There was no pain and no facial nerve palsy.

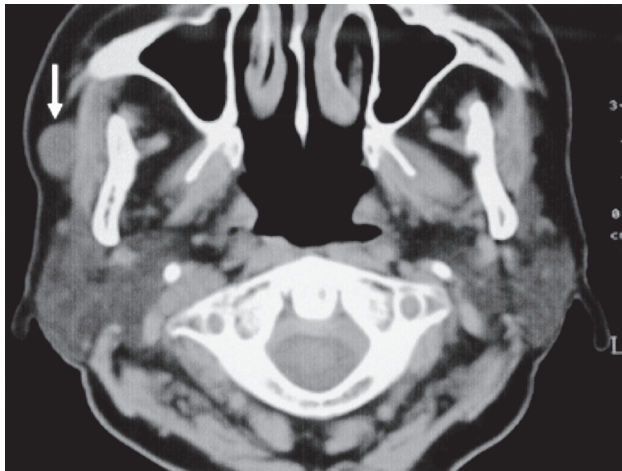
Computed tomography (CT) revealed a well-defined solid tumor on the masseter muscle (Fig. 1). The tumor was apparently separated from the parotid gland. Pleomorphic adenoma was diagnosed on the basis of fine-needle aspiration cytology. Thus, a benign salivary gland tumor originating from the right accessory parotid gland was suspected. Surgical resection of

the tumor was planned.

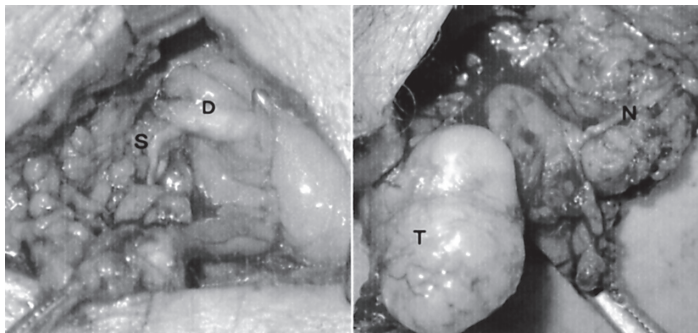
With the patient under general anesthesia, the tumor was resected through an incision made in the cheek overlying the tumor. The Stensen's duct was identified, and a secondary duct emptying into the main duct was found (Fig. 2). The tumor was noncontinuous with the parotid gland. The buccal branch of the facial nerve was identified between the main parotid gland and accessory parotid gland. The tumor was bluntly dissected from the surrounding tissue and extirpated without injury to the facial nerve (Fig. 3). The tumor was removed en bloc together with the remaining normal accessory parotid tissue. The patient's post-operative course was uneventful. The resected tumor measured 17 × 12 × 10 mm. It was diagnosed histologically as pleomorphic adenoma (Fig. 4).

### DISCUSSION

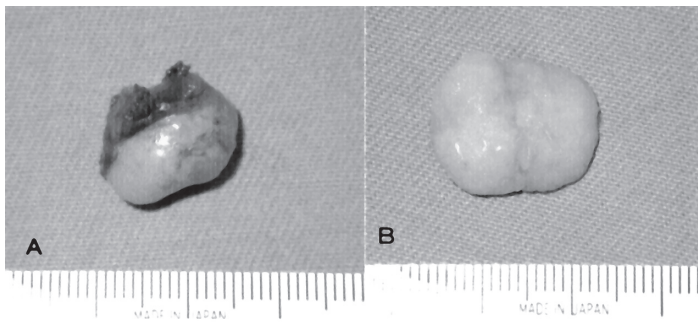
The accessory parotid gland is salivary tissue separated from the main parotid gland. It is usually located on the anterior portion of the main gland and has a secondary duct emptying into the Stensen's duct. The acces-



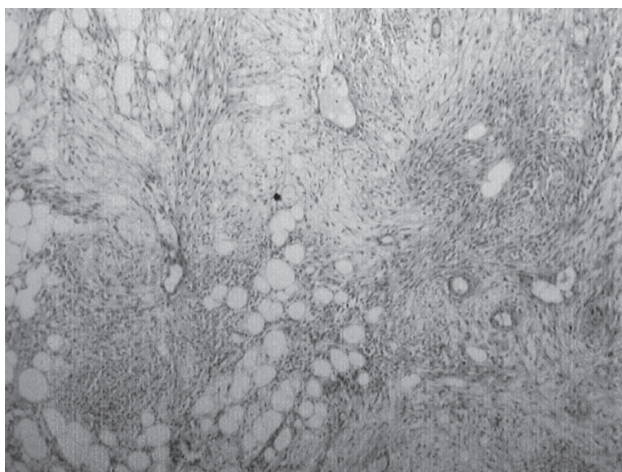
**Fig. 1** CT shows a subcutaneous tumor (arrow) outside the masseter muscle and separated from the right main parotid gland.



**Fig. 2** Intraoperative figure. A tumor (T) and identification of the Stensen's duct (D), the secondary duct (S) and the buccal branch of the facial nerve (N).



**Fig. 3** The resected specimen. (A) Tumor's surface is generally smooth. (B) The cross-section of the tumor.



**Fig. 4** Photomicrograph of accessory parotid gland tumor (pleomorphic adenoma), hematoxylin and eosin stain,  $\times 20$ .

sory parotid gland reportedly occurs in 21-61 % of individuals [1-4]; thus, it is not rare.

Accessory parotid tumor is reported to occur in 1-7.7 % of all parotid gland [3, 5]. In our hospital, 53 patients of parotid gland tumor were operated on from 2000 to 2003. And only the present case was an accessory parotid gland tumor (1.8 %). Accessory parotid gland tumor malignancy occurs more often than the main parotid gland tumor malignancy; the frequency is reported as 35-52 % [3, 6]. Histologically, pleomorphic adenoma is the most common benign tumor, and mucoepidermoid carcinoma is the most common malignant tumor [3, 5-7].

Generally, there is no pain at presentation, irrespective of the histological findings. This tumor is usually found at the midpoint of an imaginary line extending from the tragus to a point midway between the ala of the nose and the vermilion border of the upper lip [5]. Diagnostic features of the accessory parotid gland tumor do not differ from those of the main parotid gland tumor. Magnetic resonance imaging and CT are useful for visualizing separation of the tumor from the main parotid gland.

In the present case, the tumor was thought to have originated from the accessory parotid gland because (1) the mass was isolated from the parotid gland, (2) the accessory duct ran from the tumor to the Stensen's duct, and (3) salivary tissue was preserved around the tumor [3, 5, 8-10].

Surgical resection is the first choice of treatment for the accessory parotid gland tumor. It is important to identify the buccal branch of the facial nerve to avoid injuring of the facial nerve; the enlarged accessory parotid gland tumor tends to compress the buccal branch [5, 6, 8, 9]. There are two surgical approaches: an incision in the cheek

overlying the tumor and a standard preauricular incision. The latter provides sufficient exposure for dissection of the facial nerve and excision of the accessory parotid gland. However, the wound is larger than that of the former approach. The tumor in our case was removed through a small incision in the cheek because the patient preferred a small wound, and the tumor was small and localized within the accessory parotid gland.

Although the incidence of accessory parotid gland tumor is low, physicians should consider the possibility of such a tumor in the differential diagnosis of a cheek mass.

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