The salivary gland tumor accounts for about 5% of head and neck malignancies. Among these, mucoepidermoid carcinoma (MEC) is the most common type of malignancy in major salivary glands. Intraoral MEC may occur in various locations, and the predilection sites are palate, cheek, mandible, lip and tongue etc. A very few cases of MEC have been reported in retromolar trigone. Recently, we experienced a 65-year-old woman with retromolar trigonal mass, and she was finally diagnosed as MEC. We report the unique and rare disease entity with a brief literature review.

INTRODUCTION

Mucoepidermoid carcinoma (MEC) is the most common malignant tumor which usually originates from major salivary glands. It is also arisen in minor salivary glands such as palate, buccal mucosa, mouth floor and lip, but retromolar trigone (RMT) and oropharynx are rare. We report a rare and unique case of MEC in RMT of a 65-year-old woman with a brief literature review.

CASE

A 66-year-old woman came to our clinic, complained with a foreign body sensation recognized three months before the visit. On physical examination, a 1.0X1.0 cm sized relatively well-margined bluish submucosal mass was observed on the left retromolar trigone (RMT) (Fig 1). There was no abnormally palpable cervical lymph node, and no specific findings in laryngoscopy. Neck computed tomography scan showed a 1.0X1.0 cm sized well-margined low density round mass in left RMT (Fig 2). We presumed a vascular tumor with a blue color, so fine needle aspiration cytology (FNAC) was not performed. The mass was considered as benign condition, such as retention cyst, mucocele or hemangioma, and exchondal biopsy was performed for confirmation. The lesion was exposed by positioning the McIver retractor and the surrounding mucosa of tumor was dissected. There was some adhesion and bleeding around the palpoglossus and superior pharyngeal constrictor muscles. The frozen section was not performed and the operation was finished. The tumor was confirmed as low grade MEC in histopathology (Fig 3). There was no marginal involvement of the carcinoma, but the safety margin was only 2 mm. One week later, we performed further resection of palpoglossus and superior pharyngeal constrictor. Histological examination revealed no evidence of malignancy in the specimen of additional resection. There was no evidence of another metastasis on postoperative positron emission tomography and the patient was followed up without recurrence until one year.

DISCUSSION

The most common sites of the oral cavity mass are oral tongue and mouth floor. About 7% of oral cavity cancers occurs in the RMT, most are squamous cell carcinoma, and minor salivary gland tumors are relatively rare. MEC is the most common malignancy in salivary gland, of which about 46% originated from minor salivary gland in oral cavity. Palate is the most prevalent site and can occur in RMT, mouth floor, buccal mucosa, lips and tongue. MEC usually appears as a slow growing and painless mass, but pain, ulceration, discoloration and facial paralysis may occur. Low grade MEC is rarely more than 5 cm in size, whereas high grade is a rapidly growing mass that is invasive and can be accompanied with distant metastasis and ulceration. Because oral cavity tumor is located in the superficial layer, it may be purple or reddish, similar to mucinous retention cyst or vascular tumor. Differential diagnosis includes mucinous retention cyst, vascular tumor, fibroma, squamous cell carcinoma, adenoid cystic carcinoma or salivary ductal carcinoma.

Computed tomography can confirm bone infiltration when there are few intraoral artifacts, and magnetic resonance imaging is effective in evaluating soft tissue invasion. Fine needle aspiration cytology is helpful in diagnosis of MEC, and the higher the malignancy, the higher the diagnostic rate. Histologically, it is classified into three grades: low, moderated and high grade. The higher the ratio of mucous cells, the lower the malignancy.

The standard treatment for MEC is surgical resection with adequate resection margin. Small sized low grade MEC in minor salivary gland is adequately treated with local wide excision alone. However, if the lesion is wide, mandibulectomy, maxillectomy and mastoidectomy may be necessary. Cervical lymph node metastasis is a poor prognostic factor, and Chen et al reported a frequency of 34% in high grade, 8.1% in moderate, and 3.3% in low. Postoperative adjuvant radiation therapy can be performed in patients with a high grade tumor, narrow resection margin, or cervical lymph node metastasis. The 5-year survival rate is similar to 97-98% for moderate and low malignancy, but 67% for high grade.

In our case, a minor salivary tumor could arise in the RMT, and even if the tumor was suspected to be hemangiom, it should be noted that the presence of malignant tumors should be considered when there is some adhesion, bleeding and hardness in operative findings. It is necessary to study about standardized treatment and prognostic factors by collecting more similar cases.

Fig. 1. The external photography shows 1.0X1.0 cm sized bluish mass in retromolar trigone (arrowheads).

Fig. 2. Preoperative contrast-enhanced axial CT scan shows low density mass, and it is located medial to the mandibular angle (arrow).

Fig. 3. Pathologic findings. A: Cut surface of surgical specimen. B: It shows that low grade mucoepidermoid carcinoma composed of mucous cells lining cystic space (H&E, X 200). C: The photo shows epidermal cells with very few mucous cells and minimal cystic changes suggestive of mucoepidermoid carcinoma (H&E, X 400).

REFERENCES