

## Central mucoepidermoid carcinomas

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### Abstract

Central mucoepidermoid carcinomas (CMC) are uncommon tumours, comprising 2-3% of all mucoepidermoid carcinomas reported. They have been reported in patients of all ages, ranging from 1 to 78-years, with the overwhelming majority occurring in the 4th and 5th decades of life. They are histologically low-grade cancers, usually affecting the mandible as unilocular or multilocular radiographic lesions.

**Keywords:** central mucoepidermoid carcinomas (CMC), tumours, unilocular or multilocular radiographic

### Introduction

Some 90% of oral cancers consist of squamous cell carcinomas that arise from the oral mucosa. The remaining 10% of malignancies consist of malignant melanomas, carcinomas of the intraoral salivary glands, sarcomas of the soft tissues and the bones, malignant odontogenic tumors, non-Hodgkin's lymphomas and metastases from primary tumors located elsewhere in the body [1]. Salivary gland tumours are an important part of the Oral and Maxillofacial Pathology [2] and represent 3-5% of all head and neck neoplasms [3].

Central mucoepidermoid carcinomas (CMC) are extremely rare, comprising 2-3% of all mucoepidermoid carcinomas reported [4, 5, 6]. The origin of the CMC is controversial and several possibilities have been considered, including: metaplasia of odontogenic cysts epithelium, entrapment of salivary tissues from the submandibular, sublingual or minor salivary glands, during embryonic development, entrapment of minor salivary glands from the retromolar area, maxillary sinus epithelium, iatrogenic entrapment of minor salivary glands (e.g. chronic osteomyelitis and sinusitis) and odontogenic remnants of the dental lamina [7, 8]. More recently, intraosseous salivary tissue was demonstrated in 0.3% of bone specimens of all jawbones studied by Bouquet *et al.* [8], providing new evidences for the origin of intraosseous salivary carcinomas [9]. Although its etiology is questionable, CMC is a well-accepted entity [9].

### Discussion

Primary central salivary gland carcinomas of the mandible are uncommon neoplasms [10]. Mucoepidermoid carcinoma generally affects the salivary glands and only rarely is located in the jaws [11, 12]. CMC affects females twice more frequently than males and involves the mandible twice more often than maxilla. The most common site of occurrence is the premolar-molar-angle region of mandible [13].

The criteria for diagnosing CMCs include: (a) presence of a radiographic distinct osteolytic lesion; (b) positive mucicarmine staining; (c) absence of rupture of one or more cortical plates; (d) clinical and histological exclusion of a metastasis or an odontogenic lesion; (e) exclusion of the

origin from a soft tissue salivary gland; [9] histologic confirmation [14].

Brookstone *et al.* in 1992 [14] proposed a staging system based on the condition of the overlying bone. Lesions with intact cortical plates with no evidence of bone expansion are Staged I; tumors with intact plates but intraosseous expansion are Staged II; and lesions associated with cortical perforation or nodal disease are Staged III.

Most of the reported, CMC are histologically low-grade tumours and usually carry a favorable prognosis [10]. As a rule, even being low-grade tumours, CMC should be managed by wide local resection. In conclusion, CMC is a rare entity. Although CMC don't show clinic characteristics and unfavorable prognosis, it can, how our case, showed destruction, local infiltration and ulcerated mucosa commonly in long time evolution cases. In these cases, block resection and effective followup are necessary for the success of the treatment.

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