Intra oral mucoepidermoid carcinoma - histopathologist perspective

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INTRODUCTION
Mucoepidermoid carcinoma (MEC) is the most common salivary malignancy, with a widely diverse biologic behaviour, which correlates with tumour grade and stage. Important treatment decisions and prognostic information are derived from the grading of MEC[11]. There is arguably no other salivary gland tumour in which grading is as important to prognosis and therapy[11]. Numerous grading methods have been proposed based on the prevalence of cell types (mucinous, intermediate and squamous cell) and histologic features of aggression (soft tissue or vascular/lymphatic invasion, pleomorphism, high mitotic count and pattern of invasion)[11]. MEC is most frequently seen in the 35-65-year age group, but may be found at any age. It is the most common malignant salivary gland tumour to arise in children and adolescents MEC has a slight predilection for women[12,13]. Stewart et al.[13] in 1945 described its mucous-secreting and epidermal cellular elements, thus establishing it as a distinct pathologic entity. Palate is the most common site for minor salivary gland involvement. Salivary gland neoplasms arising within the jaws as primary central bony lesions are extremely rare, comprising 2-3% of all MECs reported. Its clinical behaviour is highly variable and ranges from slow-growing and indolent to locally aggressive and highly metastatic. In 1991, after a systematic review of its histology and degree of differentiation, the World Health Organisation classification recommended that the term “mucoepidermoid tumour” be changed to “mucoepidermoid carcinoma”[4,5].

DISCUSSION
Mucoepidermoid carcinoma is the most common malignancy of the salivary glands. It comprises 5-10% of all salivary gland tumours. It is histologically comprised of a mixture of mucous cells, intermediate cells, squamoid or epidermoid cells. This tumour may also demonstrate clear cell, oncocyte or columnar cells. There is arguably no other salivary gland tumour in which grading is as important to prognosis and therapy. Here we present a review with systematic approach to the histopathologic diagnosis, grading and prognosis, with a special emphasis on the biologic potential based on newer investigative modalities from the histopathologist perspective.

Key words: Intra oral Mucoepidermoid carcinoma, Histopathologic diagnosis, Histochemistry, Grading, Biologic potential.

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Perspectives in MNR Medical Research; 30th September 2018: Vol. - 2, Issue - 1

MAML2, which has been associated with favourable clinicopathologic outcomes, including longer OS and DFS and lower rates of distant metastases. These potential biomarkers, along with continued analysis of clinical outcomes, will allow us to optimise the therapeutic approaches for MEC[19]. Surgical resection is the mainstay of treatment for all grades of MEC. Local resection of the cancer is considered to be a sufficient treatment for low-grade tumours. High-grade tumours are generally treated with surgical excision with wide margins followed by postoperative radiotherapy. Neck dissection is often used when regional metastasis is present[17].

CONCLUSION

This paper has touched on the practical clinical and diagnostic issues, most importantly histologic grading, and hence the biologic potential relating to mucoepidermoid carcinoma. Continuous efforts are needed in understanding and improving the available grading systems, thereby aiding in predicting the treatment outcome. The following years, researchers are expected to look into the definition of the genetic and proteOMIC underpinnings of many of the morphologic and biologic distinctions that we currently recognizes, as this will translate into more effective therapies for prevention, local control and cure for many of the salivary gland malignancies.

REFERENCES


