



**IMMUNOHISTOCHEMICAL EXPRESSION OF *c-myc*  
ONCOGENE PRODUCT IN SELECTED ODONTOGENIC  
CYSTS AND TUMOURS**

by

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## Abstract

Odontogenic cysts and tumours are distinct entities & quite a common occurrence in the jaw bones. These are individual lesions which arise from the same odontogenic apparatus but with varying pathogenesis. Various molecules have been implicated to play a role in the pathogenesis of these lesions ranging from cell cycle perturbations to mutations in oncogenes & tumour suppressor genes. The role of *c-myc* oncogene in selected odontogenic cysts & tumours was studied by assessing the immunohistochemical expression of c-Myc oncoprotein in 10 cases each of ameloblastoma, AOT, OKC, dentigerous cyst & radicular cyst and the results of each group were compared with other study groups. 80% positivity was observed in ameloblastoma, AOT & OKC, while radicular cyst showed 50% positivity & dentigerous cyst showed 20% positivity. When c-Myc expression of ameloblastoma & AOT was compared, no significant results were obtained. Similarly no statistical significance was observed when results of OKC were compared with ameloblastoma & AOT. In contrast, significant results were obtained on comparing c-Myc expression of dentigerous cyst with ameloblastoma & AOT and radicular cyst with AOT. From the above data we conclude that 1) Ameloblastoma & AOT have similar proliferative potential & their biologic behavior cannot possibly be attributed to it. Thus, the infiltrative ability of ameloblastoma is probably not correlated with its proliferative ratio. 2) OKC has an intrinsic growth potential which is absent in other cysts & should be considered as a benign cystic neoplasm rather than a cyst.

**Keywords:** (*c-myc* oncogene product; immunohistochemistry; ameloblastoma; AOT; OKC; dentigerous cyst; radicular cyst)