COMPARISON OF IMMUNOHISTOCHEMICAL EXPRESSION OF c-Myc IN ORAL SQUAMOUS CELL CARCINOMA AND VERRUCOUS CARCINOMA

by

DR. ASHWIN. S

Dissertation Submitted to the
Rajiv Gandhi University Of Health Sciences, Karnataka, Bangalore

In partial fulfillment
of the requirements for the degree of

Master of Dental Surgery (M.D.S.)

in

ORAL PATHOLOGY AND MICROBIOLOGY

Under the guidance of
Dr. REKHA.K, M.D.S.
Professor

Department of Oral Pathology And Microbiology
S.D.M. College of Dental Sciences & Hospital
Dharwad

2006

ABSTRACT

Background

c-*myc* is a proto oncogene belonging to the *myc* gene family. The c-Myc oncoprotien is predominantly located in the nucleus and is a nuclear transcription factor. The c-Myc oncoprotien is considered to play a role in cell cycle, proliferation and differentiation and apoptosis.

Enhanced expression of c-Myc oncoprotien is closely related to the biologic behavior of the neoplastic cells. Over expression of c-Myc oncoprotien is related to poor prognosis in neoplasms.

Objective

To study c-Myc oncoprotien expression in different grades of Oral Squamous cell carcinoma and Verrucous Carcinoma and to correlate their expression

Method

From the department of Oral Pathology of S.D.M College Of Dental Sciences Dharwad, 30 cases of Oral Squamous Cell Carcinoma and Verrucous Carcinoma each were taken for the study. The formalin fixed paraffin embedded tissue blocks were sectioned. Heat induced antigen retrieval method was used for antigen retrieval. The section was stained using c-Myc (clone 9E-10) antibody. The antigen-antibody reaction was visualized using LSAB+ visualization kit.

Results

The well differentiated, moderately differentiated and poorly differentiated Squamous Cell Carcinoma showed increasing intensity of staining with the different grades of Squamous cell carcinoma; well differentiated Squamous cell carcinoma showing mild staining and poorly differentiate Squamous cell carcinoma showing intense staining. In Verrucous carcinoma mild intensity of staining was seen which was restricted to basal and parabasal region.

Interpretation And Conclusion

Statistically significant "p" value was obtained between well differentiated and poorly differentiated Squamous cell carcinoma, well and moderately differentiated Squamous cell carcinoma and also between Squamous cell carcinoma in general and Verrucous Carcinoma. It proved that there was up-regulation of c-Myc expression in Oral Squamous cell carcinoma and Verrucous Carcinoma. Further studies on various grades of dysplasia, leukoplakia and other malignant lesion would give an understanding of the moleculear mechanisms involved in the progression from a premalignant lesion to a malignant lesion.