PROLIFERATION MARKERS IN HEAD AND NECK LESIONS

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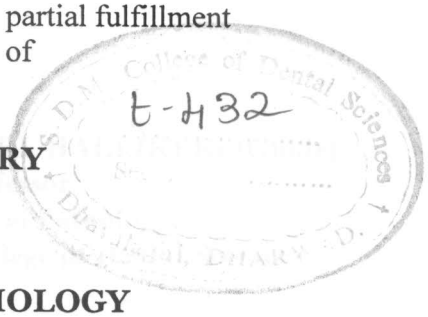
Submitted to the
Department of Oral pathology & Microbiology in partial fulfillment
of the requirements for the degree of



MASTER OF DENTAL SURGERY

in

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Dr. GURURAJ.B.PATIL

DEPARTMENT OF ORAL PATHOLOGY
S.D.M. COLLEGE OF DENTAL SCIENCES & HOSPITAL,
DHARWAD

Proliferation is one of the most fundamental of biological processes of its role in growth and its maintenance of tissue homeostasis. This is achieved by mitosis and meosis in somatic and gonad cell replication respectively.

The machinery for DNA replication and chromosome segregation is insulated from interruption by extra-cellular signals, and is essential ~~and~~ autonomous nature implies that damage to the pivotal components would be highly debilitating if not fetal to cell. Cell proliferation is regarded as one of the most important biological mechanism in oncogenesis.[1]

Therefore genes commanding these processes should not be frequent targets of mutation, deletion or amplification in cancer.

Cells have different function to different location and also differ in their rate of differentiation and maturation. Cell has 4 phases in its life cycle. G_0 made for quiescent phase and where as other phases are representative of functional phase. During G_1, S, G_2 and M phase where cell is replicating.

In recent years, a number of studies have attempted to determine the prognostic relevance of certain molecular markers in oral and para-oral neoplasms.

On the one hand, proliferation has been studied as an important cell biological mechanism in oncogenesis, often using laborious methods applicable only in experimental conditions. On the other hand, assessment of proliferation has become popular in histopathology by means of predicting behavior of tumor.[2]

The prognostic value of these biological parameters has been shown different in various malignancies. These are used to predict the local recurrence, potential for metastasis, and thereby assessing the disease-free survival and survival to death.