DNA DAMAGE IN PERIPHERAL BLOOD LEUKOCYTES OF PATIENTS WITH ORAL LEUKOPLAKIA

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Cancer of the oral cavity is a major health problem throughout the world. In many regions of Asia, oral cancer is the commonest malignant disease accounting for 40% of all cancers. According to the World Health Organisation assessment, oral cancer is the 3rd most common malignancy among males, and 6th common in females. Of all cancers of oral cavity, Squamous Cell Carcinoma is the commonest [Langdon J D,1995]. Oral Squamous Cell Carcinoma is often preceded by several changes in the overlying epithelium, which are observed histopathologically as dysplastic changes. It is important to quantify these dysplastic changes in the oral epithelium, so that the chances of malignant transformation can be known and steps for prevention of oral cancer can be initiated.

There are several methods to evaluate dysplasia of the oral epithelium, which include, visual methods, photographic assessment, computer- aided analysis etc. In spite of all these various types of assessments, there is no universal agreement among the oral pathologists [Louis 1995, Pindborg 1985].The peripheral blood or the serum has been extensively studied for biomarkers in oral carcinoma and also for dysplasia. The results were however, not very specific. [Johnson et al, 1980].

The peripheral blood cells also have been studied in the past in the patients with cancer of various organs and changes occurring in them have been termed as malignancy associated changes (MAC) [Nieburg and Goldberg, 1968]. These include changes in the buccal mucosa, uterine cervix pancreas, liver, skin, blood and bone marrow. These MAC have also been seen in