Cytopathological Effects Of Smoking On Clinically Normal Oral Mucosa

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Introduction: Smoking is a well-known cause of oral disease and oral cancer. Several dysplastic cytological changes occur before the appearance of the clinical lesion. This study aimed to investigate the cytopathological effects of smoking in clinically normal oral mucosa of cigarette smokers. Materials and Methods: A total of 40 cigarette smokers and 40 nonsmokers (control group) were included in this study. All participants had clinically normal oral mucosa. Oral smears were obtained from the side of the tongue and floor of the mouth using a Cytobrush. The smears were stained by Papanicolaou stain and examined under light microscope for inflammation, hyperkeratinization and dysplasia. Results: There was a significantly higher rate(p<0.005) of inflammation 63%, hyperkeratinization 62% and mild dysplasia 26% among smokers where the rates were 35%, 12% and 2% respectively. Conclusion: Smoking causes significant cytopathological changes in normal oral mucosa, the detection of which is important to prevent progression into carcinoma. The procedure is fast, painless and inexpensive.

KEYWORDS: Papanicolaou stain, brush biopsy, cigarette smokers, dysplasia, oral mucosa