



of test. Among the property of PMP, the highest score was related to "need for more thought and reflection".

Conclusion: Despite the desirable educational status of the students regarding oral lesions, their clinical reasoning and decision making based on the patients' conditions were not satisfactory.

Key words: dental education, clinical reasoning, Patient Problem Management, dental student

Expression of p53 Protein and Ki-67 Antigen in Chronic Periodontitis of Cigarette Smokers: An Immunohistochemical Study

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Abstract

Background: Cigarette smoking has a destructive effect on periodontium. Studies have revealed a direct linear relation between smoking and cancers of oral cavity. The aim was to evaluate the impact of cigarette smoking on apoptosis and proliferation of gingival epithelium in chronic periodontitis.

Materials and Methods: The study was case-control. 32 paraffin embedded samples of chronic periodontitis with periodontal index = 3 in CPITN scaling system from 16 smoker and 16 non-smoker were examined immunohistochemically for p53 and ki-67 expression. The expression of p53 and Ki-67 were evaluated in terms of intensity and count of positive cells. The expression of p53 and Ki-67 were compared between smokers and nonsmokers and then examined in relation to packs × year in smokers.

Results: The mean count of p53 and Ki-67 expression were not significantly different between smokers and nonsmokers ($p=0.74$ and $p=0.93$, respectively). The intensity of p53 and Ki-67 positive-stained cells were not significantly different between smokers and nonsmokers ($p=0.68$ and $p=0.44$, retrospectively). Expression of p53 and Ki-67 were not different between groups of smokers in terms of packs × year ($p=0.71$, $p=0.96$, respectively).

Conclusion: Although the difference between expression of p53 and Ki-67 were not significant between smokers and nonsmokers, expression of P53 and Ki-67 were higher in smokers with chronic periodontitis than nonsmokers. It seems that there is a balance between the rate of cell proliferation and cell death in chronic periodontitis even in smokers.