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Evaluation of Oncogenic Micr-21 Expression Associated with Alcohol Consumption and Smoking**Rushdi S Fadhil**

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Aim: The concept of “lifestyle” includes different factors such as nutrition, behaviour, stress, physical activity, working habits, smoking and alcohol consumption. Increasing evidence shows that environmental and lifestyle factors may influence epigenetic mechanisms, such as DNA methylation, histone acetylation and microRNA expression. Since microRNAs (miRNAs) represent an emerging field of cancer research, there is an increasing interest regarding the miRNA responses to lifestyle choices. MiR-21 has been established as an oncogenic miRNA in different cancer diseases. The aim of this study was to analyse whether cigarette smoking and alcohol consumption, are associated with the increased level of the salivary miR-21 in healthy individuals.

Materials and Methods: Fifty supernatant saliva samples from fifty healthy individual (smoker 10% and alcohol drinker 34%) were analysed with non-smokers and non-alcohol drinkers by real-time polymerase chain reaction. The expression level of miR-21 was compared in those samples of healthy individuals with different demographical characteristics, social status, drinking and smoking habits.

Results: Our data demonstrate overexpression of salivary miR-21 in individuals with regular alcohol consumption. Smokers showed a non-significant increase in expression of salivary miR-21.

Conclusions: Differential expression of salivary miR-21 of healthy individuals from a small geographic region's population shows correlation with the existence of common risk factors.

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