HOW DOES SMOKING INFLUENCE TOOTH COLOR

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Background and objective

Smoking cigarettes is a major risk factor for many general and oral diseases. As a result of tooth discoloration this bad habit at first influence mainly on dental esthetics. The aim of this study was to find how smoking affect tooth color characteristics value L* and chromaticity a* and b*).

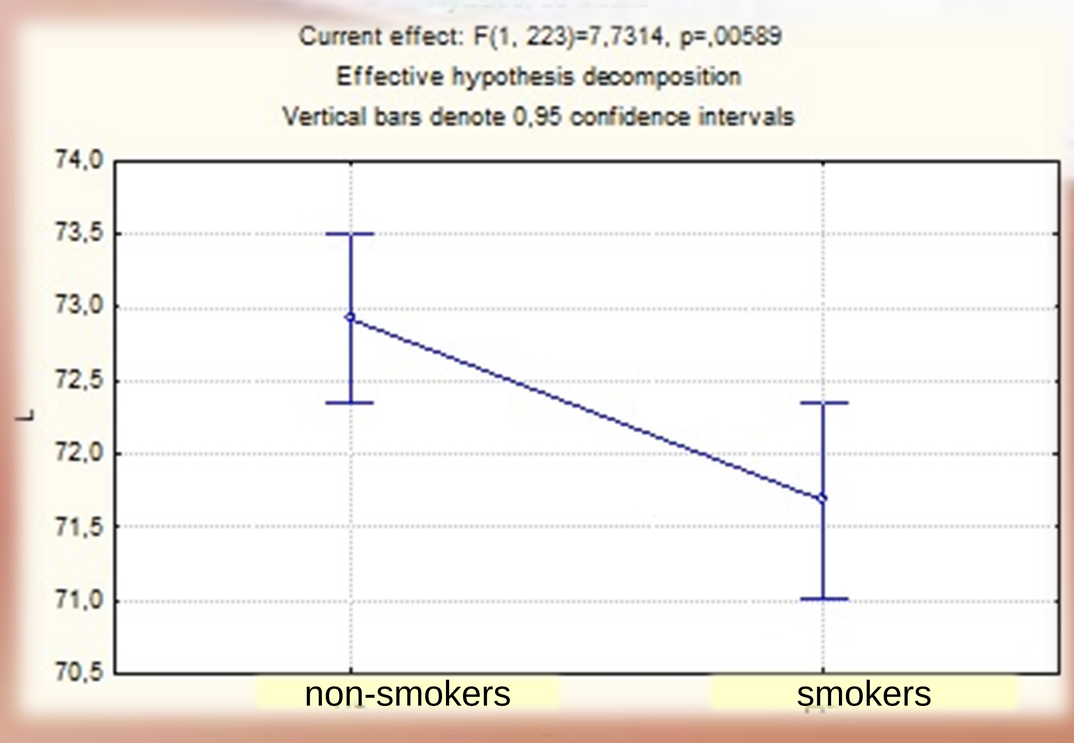
Smoking	N	%
No	123	52,34
Yes	112	47,66

Material and method

The tooth color of 235 healthy patients was evaluated using intra-oral spectrophotometer Shade Pilot TM (Degu Dent, Germany). Measurements were taken from the middle third of the left or right central incisors, without caries, internal discoloration, filings or crowns. According the questionnaire two groups were formed, non-smokers 123(52,4%) and 112(47,6%) smokers. The collected data was statistically analyzed using ANOVA/MANOVA Factorial Anova (F).

Results

There was statistically significant influence of smoking on tooth value L* (F=7,7 и p<0,01(p=0,006)). Smokers have lower level of tooth value L* and the Delta L between two groups was 0,66. There was no significant difference on chromaticity variables a* (F=0,84 p<0,05(p=0,36)) and b*(F=0,02 и p<0,05(p=0,90)) between smokers and non-smokers.



Conclusion

Due to higher level of value L* we can say that non-smokers has significantly more brighter and lighter teeth than smokers, but the changes in tooth color (since chromaticity variables are not different in the two groups) generally came from the external yellow and brown discolorations from the nicotine and tar contained in cigarette smoke.

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