Assessment of genotoxicity of waterpipe smoking using 8-OHdG biomarker

Abstract
Waterpipe tobacco smoking is increasing in popularity, particularly among young adults. This popularity is related to the lack knowledge regarding the health effects of waterpipe smoking. In this study, we examined the genotoxicity of waterpipe smoking using an 8-hydroxy deoxyguanosine (8-OHdG) assay. Genotoxicity was evaluated in the saliva, urine, and serum of 66 waterpipe adult smokers and 46 healthy nonsmokers. The level of addiction to waterpipe smoking was evaluated using the Lebanon Waterpipe Dependence Scale-11. Levels of 8-OHdG in the samples were measured using commercially available enzyme-linked immunosorbent assays. Levels of 8-OHdG in the saliva (52,430 ± 2923 vs 48,430 ± 4189 pg/mL), urine (2815 ± 312 vs 2608 ± 180 pg/mL), and serum (19,720 ± 202 vs 19,670 ± 254 pg/mL) were similar between waterpipe smokers and nonsmokers (P > 0.05). In addition, no correlations were found between dependenc