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The exposure to pollutants of the auto repair workers: monitoring their oxidative stress

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Aim: Auto repair workers, are exposed to multiple pollutants, each of them potentially risky? Dangerous? For several target organs. The aim of this study is to identify their possible overall effect, by monitoring the concentration of salivary malondialdehyde, index of oxidative stress.

Methods: Malondialdehyde of 25 male workers, smokers and non-smokers, further divided into two subgroups relatively to the amplitude of their working place, was monitored. The control group consists of 12 and 13 male smokers and 13 non-smokers. Univariate (UVA) and Multivariate (MVA) analysis method were used to analyze the results.

Results: No variable is significant ($p \ge 0.05$) for the control group using UVA while age and smoking significantly increase the levels of MDA ($p \le 0.05$) using MVA. For worker's group the age and the place of work increase the MDA ($p \le 0.05$) using UVA analysis while only the place of work remains significant (≤ 0.05) using MVA analysis. MVA analysis reveals that, besides the type of work, also the age and smoking significantly increase the level of MDA, because of a higher exposure to pollutants.

Conclusions: You can check the cumulative effect of pollutants on auto repair workers, by monitoring the salivary malondialdehyde.

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