

13th International Conference on

Laboratory Medicine & Pathology

June 25-26, 2018 | Berlin, Germany

THE EXPOSURE TO POLLUTANTS OF THE AUTO REPAIR WORKERS: MONITORING THEIR OXIDATIVE STRESS WITH USING THE TEST STRIPS

Menicagli Roberto¹, Bolla Gianni², Denti Francesco³¹MedResearch Lab, Italy²University of Milan, Italy³University of Milano-Bicocca, Italy

Statement of Purpose: Auto repair workers are exposed to multiple pollutants, each of them potentially dangerous for several target organs.

Aim: The aim of this study is to identify their possible overall effect, by monitoring the concentration of salivary malondialdehyde (MDA), index of oxidative stress.

Methodology & Subjects: Concentration of salivary malondialdehyde of 25 male workers, smokers and non-smokers further divided into two subgroups relative to the amplitude of their working place, were monitored using the test strips. The control group consists of twelve and thirteen male smokers, and thirteen non-smokers. Univariate (UVA) and Multivariate (MVA) analysis method were used to analyze the results.

Discussion: No variable is significant ($p \geq 0.05$) for the control group using UVA while age and smoking significantly increases the level of MDA ($p \leq 0.05$) using MVA. For workers group the age and the place of work increases the MDA ($p \leq 0.05$) using UVA analysis while only the place of work remains significant ($p \leq 0.05$) using MVA analysis. MVA analysis reveals that, besides the type of work, also the age and smoking significantly increases the level of MDA, as a result of a higher exposure to pollutants.

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

menicagli@libero.it
giannibolla@unimi.it
fradenti92@gmail.com