

P26. Evaluation of solvent exposure of patients admitted to Ankara Occupational and Environmental Diseases Hospital in 2006

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Aim: The aim of this study was to evaluate the urinary solvent levels of patients admitted to Ankara Occupational and Environmental Diseases Hospital in 2006

Method: The urinary metabolite levels of solvents of the workers referred to our hospital for periodical medical examination between January 2016 and December 2016 were assessed as biomarkers of exposure i.e.; hippuric acid for toluene exposure, mandelic acid and phenylglyoxylic acid for styrene exposure, 1 hydroxypyrene for poly aromatic hydrocarbons exposure and trichloroacetic acid for trichloroethylene exposure.

Findings: The number of patients whose urinary trichloro acetic acid level monitored was 2228 and %5 (n=123) of them exceeded reference value (<10 mg/L) of our laboratory. The mean trichloro acetic acid value of all patients was 4,86 mg/L. The number of patients whose urinary mandelic acid level monitored was 1141 and % 2 (n=27) of them exceeded reference value (<400 mg/L).. The mean mandelic acid value of all patients was 144,37 mg/L. The number of patients whose urinary hippuric acid level monitored was 1849 and % 6 (n=107) of them exceeded reference value (<1500 mg/L). The mean hippuric acid value of all patients was 654,72 mg/L. The number of patients whose urinary phenylglyoxylic acid level monitored was 1131 and % 1 (n=15) of them exceeded reference value (0-100 mg/L). The mean phenylglyoxylic acid value of all patients was 21,78 mg/L. The number of patients whose urinary 1 hydroxypyrene level monitored was 1557 and % 4 (n=60) of them exceeded reference value (<1400 mg/L). The mean 1 hydroxypyrene value of all patients was 456,58 mg/L.

Conclusion: We conclude that toluene was the most common solvent to exceeded reference value in occupationally exposed workers and trichloroethylene and poly aromatic hydrocarbons were other solvents following toluene.

Keywords: solvent, occupational exposure, toluene