

P25. Evaluation of heavy metal levels 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 serum or urinary heavy metal levels of patients admitted to Ankara Occupational and Environmental Diseases Hospital in 2006

Method: The study subjects consisted the workers referred to our hospital for periodical medical examination. The medical records of these subjects between January 2016 and December 2016 were scanned and evaluated by means of lead, mercury, arsenic, manganese, nickel and cadmium levels.

Findings: The number of patients whose whole blood lead level monitored was 3858 and %25 (n=973) of them exceed reference value (<10 µg/dl) of our laboratory. The mean lead value of all patients was 8,8 ug/dL. The number of patients whose blood mercury level monitored was 1078 and 6 (% 0,5) of them exceed reference value (<10 µg/L). The mean mercury value of all patients was 0,51 ug/L. The number of patients whose urinary arsenic level monitored was 2797 and % 4 (n=116) of them exceed reference value (<35 µg/). The mean arsenic value of all patients was 16,2 ug/L. The number of patients whose whole blood manganese level monitored was 2494 and 370 (%14) of them exceed reference value (4,2-16,5 µg/L). The mean manganese value of all patients was 11,5 ug/L. The number of patients whose serum nickel level monitored was 1680 and 14 (% 0.8) of them exceed reference value (0,6-7,5 µg/L). The mean nickel value of all patients was 0,03 ug/L. The number of patients whose whole blood cadmium level monitored was 1666 and 12 (% 0.7) of them exceed reference value (<5 ug/L). The mean cadmium value of all patients was 0,18 ug/L.

Conclusion: We conclude that lead was the most common heavy element to exceed reference value in occupationally exposed workers and manganese and arsenic were other elements following lead.

Keywords: Heavy metal, occupationally exposure, lead