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EXPLORING THE TOXICITY LEVELS OF CHROMIUM AMONG WELDERS

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Abstract: Introduction: Welders are at the risk of exposure to Chromium which is associated with adverse health effects . Study objectives: To determine the prevalence of chromium toxicity among workers in welding industry , and to correlate the occupational exposure for chromium with respiratory morbidity symptoms. Methodology: Study design and setting: Cross-sectional experimental study design. The present study was conducted at Irbid Industrial City. A convenient sample of 51 participants was included in the study in addition to 61 references as a control group. Urine Chromium level was analyzed at Princess Haya Center for Biotechnology using Atomic Absorption Spectrometry. Results: The mean concentration of Chromium 15.87 ug/dl with SD + 14.52 ug/dl and 25.05 ug/dl with SD + 14.60 ug/dl for control group and welders respectively. There was a significant relationship between chromium exposure among welders compared with control (p value 0.000). Conclusion: 1- The present study showed that there is a significant exposure to Chromium among welders. 2- There is a significant correlation between Chromium and respiratory diseases as sensitivity. 3- Chromium was correlated significantly with possible high potential of certain environmental issues to have Chromium such as living close to factory, hazard wastes, organic solvents and gases.