

P144. URINE NICKEL CONCENTRATIONS OF NICKEL-SENSITIVE PATIENTS: A COMPARATIVE STUDY IN TURKEY

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Nickel is a potential carcinogenic and very common cause of allergic contact dermatitis. Human are exposed to nickel primarily via inhalation, ingestion and dermal absorption. The most encountered nickel exposure sources for general population are foods, cigarette, jewellery, cosmetics, metal coins, etc. Low concentrated nickel-plated objects may cause chronic accumulation in the body as a result of recurrent contacts. On the other hand, urine is the best indicator of chronic accumulation as an evidence for the exposure to nickel. To the best of our knowledge, in our country, there hasn't been a reported study about the urinary nickel concentrations of nickel sensitized individuals compared in non-sensitive individuals yet. The aim of this study was to compare the nickel concentration in urine of patients whose nickel-sensitivity was dermatologically proven, with non-sensitive group. Nickel patch test was applied to 388 (61.6% of men) volunteer in dermatology policlinics of Cerrahpasa Medical Faculty. Test results were positive in 92 (23,7%) participants. Urine samples were also collected from all participants and nickel concentrations were determined by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS). Mean concentrations of nickel-sensitive and non sensitive people were found 4.48 and 4.26 µg/g creatinine respectively. Although a significant difference was not found between two groups according to nickel concentration in urine ($p=0.068$), results showed that nickel-sensitive people have higher concentration of nickel in urine than other group as related studies reported in other countries. This is the first comparative study evaluating the relationship between urine nickel concentration and nickel sensitivity in Turkey.

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