

LETTER TO THE EDITOR

SYSTEMIC NICKEL ALLERGY: ORAL DESENSITIZATION AND POSSIBLE ROLE OF CYTOKINES INTERLEUKINS 2 AND 10

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Received April 26, 2012 – Accepted December 14, 2012

Nickel ingested with food can elicit either systemic cutaneous or gastrointestinal symptoms causing a systemic nickel allergy syndrome (SNAS) that can be treated with tolerance by oral ingestion of the metal. It has been suggested that interleukins 2 (IL-2) and 10 (IL-10) are involved in the mechanisms underlying oral tolerance. We evaluated the clinical efficacy of oral desensitization therapy in SNAS consisting in the administration of nickel sulphate. Because nickel allergy prevalently affects women, only female subjects (N = 22) were recruited. Oral nickel desensitizing therapy was associated with low-nickel diet for three months. Before and after therapy, clinical conditions were evaluated, and circulating cytokines IL-2 and IL-10 were measured. After the two-year treatment, visual analogue scale (VAS) scores for symptoms were significantly reduced ($P < 0.001$). Patients were released by either cutaneous or gastrointestinal symptoms and by tolerating nickel-containing food. At the end of the treatment, nickel oral challenge test was negative in 18 patients, and IL-2 level in the serum was significantly reduced while IL-10 was increased, although this datum was not statistically significant. Our study confirms the clinical efficacy of nickel oral immunotherapy and focuses on the mechanisms triggered by oral tolerance indicating that reduction of IL-2 can be associated with success of oral nickel desensitizing therapy.

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