

EVALUATION OF NUTRITIONAL HABITS IN STONE FORMING HYPERCALCIURIC PATIENTS

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Calcic Nephrolithiasis (NC) is a common clinical disorder that involves 1 to 5% of the population, it has a considerable hereditary component and may be linked to several metabolic disorders. Its multifactorial pathogenesis share both genetic and nutritional factors. An excessive excretion of calcium (hypercalciuria) is the major physiopathological mechanism of NC and is frequently observed in osteoporotic patients, as result of either drug administration (calcium, vitamin D) or high bone turnover. A common pathogenetic mechanism of all such metabolic disorders may involve chronically maintained metabolic acidosis, which determines bone loss and renal loss of calcium, due to both the buffer action carried out by the skeleton against acid radicals and as well as an increase in osteoclast-mediated bone resorption. A recent study has shown that, in the case of NC, a calcium deficient diet will not provide the hypothetical beneficial effects that a normocalcic, hypoproteinic, hyposodic diet will (Forgnari et al., 2002). Moreover, it has been observed that a calcium nutritional deficiency, together with an excessive protein intake, can determine a mineral mobilisation from bone thus causing an osteopenic or osteoporotic status. To better evaluate the nutritional habits of hypercalciuric patients, a food frequency questionnaire was distributed to 54 patients, age 43.1 ± 15.7 y (range 15-81 y) recruited from a clinical survey. The results of the study show that the subjects calcium intake is less than 80% of the recommended daily intake and the protein intake reaches up to 15% of their daily caloric intake. In our sample Na intake is 1656.7 ± 407.9 mg/die for women and 1615 ± 313.5 mg/die for men, the acid ossalic values are 185.7 ± 112.8 mg/die for women and 268.6 ± 130.4 mg/die for men. Those values are higher than those recommended in an adequately balanced diet in terms of normal calcium content, low amounts of sodium chloride and ossalic acid and low animal protein content (a 2500 kcal diet contain 1150 mg/die Na and 200 mg/die ossalic acid).