

The clinical course of urolithiasis in children under 3 years of age

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ABSTRACT

Purpose: Certain risk factors of urolithiasis may be diagnosed in 75% of children with stones. They include genetic, anatomic, metabolic and nutrition causes. The diagnostics' evaluation should determine and rule out anatomic factors and establish metabolic disorders. The treatment is based on an increased fluid intake, and alterations in the nutrition pattern. The aim was to analyze the clinical course of urolithiasis in children below 3, and detect the possible factors affecting the success of therapy.

Materials and methods: Between 2009 and 2013, we retrospectively investigated the cases of 68 children (34 boys and 34 girls) under 3 years who were treated in the clinic. Urolithiasis was diagnosed at the mean age of 10 months; the average follow-up lasted 26 months until reaching 3 years. The retrospective analysis was based on medical documentation and direct contact with parents.

Results: Among the risk factors, the most common was hyperciuria. The treatment of children was based on an increased daily fluid intake and dietary recommendations. Among the specific treatments, the most common were citrates (51%). In the majority of cases, the therapy lasted over a year after the clinical absence of stones. This therapy was successful in 62% of children. The factors contributing to the success of the treatment were: a negative family history of urolithiasis, unilateral stones, normal urinalysis, decrease of the Ca/Cr index, and compliance of dietary and medical recommendations.

Conclusions: The treatment is based on the elimination of risk factors, and alterations in the dietary pattern. High percentage of parents did not respect the medical recommendations.

Key words: Urolithiasis, pediatrics, treatment, risk factors.
