

Evaluation of response to treatment with polycitra-K in urolithiasis of children

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*Abstract

Background: Development of stone depends on certain physicochemical factors. Several treatment methods including increased fluid intake and dietary modification, medical therapies such as potassium citrate and use of extracorporeal shock wave lithotripsy (ESWL) and finally surgery methods are used for treatment of urolithiasis.

Objective: The aim of this study was to evaluate the level of response to medical therapy with polycitra-K in children with urolithiasis.

Methods: The study population comprised all patients less than 14 years old with urolithiasis visited at Mofid and Labafi Nejad hospitals within the last five years. All patients with an initial ultrasonography showing stone in urinary tract. At the end of study, the complete resolution or passage or a decrease in the size of stone in later sonography was defined as response to treatment.

Findings: From 109 patients, 91 cases continued medical therapy with polycitra-k and 51 patients (56%) responded to treatment. Hypercalciuria and hyperuricosuria were found to be the etiological factors in 25% and 19% of patients, respectively. The stone analysis revealed that 50% were composed of ca-oxalate. Stone disease was more common between the ages 1-3 years and the most common complaint was hematuria (20%). Calcium Oxalate stones were the most frequent stones which responded to polycitra. The response rate in girls and boys was similar and in different age groups it was almost equal.

Conclusion: Based on the response rate of medical therapy with polycitra-k is recommended for treatment of urolithiasis in children.

Keywords: Urolithiasis, Alkali Therapy, Potassium Citrate, Children.

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