

76. THE EFFECT OF WATER INTAKE IN PATIENTS WITH URETEROLITHIAS

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Introduction. It is a standardized approach to treat non- obstructive calculi of ureter by hydrotherapy. In theory, the administration of intravenous fluid bolus stimulate renal fluid flow in patients with ureterolithiasis in time of acute renal colic. Historically hydrotherapy has been adopted in practice as a part of a conservative treatment in the emergency department. Patients are hospitalized for three to four days and every day they are given intravenously four to five litres of fluid along with diuretics in the hope that the stone will be removed. In this reseach are considered scientific publications about the effect of water intake in patients with ureterolithiasis.

Aim of the study. To determine the efficiency of water intake in patients with ureterolithiasis.

Materials and methods. We performed a PubMed and science direct database to distinguish reviews, original articles and metaanalysis using the search words “fluid intake in renal colic” and “ureteric stone”. We also reviewed national and international guidelines as European Association of Urology (EAU), the Cochrane Collaboration (two studies Edna 1983 and Springhart 2006) and clinical evidence databases.

Results. During the research, we revealed that: on the one hand in the Cochrane studies where compared the use of high-volume fluid therapy, diuretics with minimal or no fluids and obtained that hydrotherapy has not been shown to improve pain control, stimulate ureteral stone passage, or necessary of surgical stone removal. On the other hand leading to high intrarenal pressure may occur complications such as rupture of ureteral wall or renal impairment, forniceal tears and perirenal collections. In according to EAU and Urology practice conservative management in patient who have initial presentation for episode of acute ureteric colic and single non- obstructive calculus situate distal to renal calyx is pain control, hydration and anti-emetics. If diagnosis confirmed with non-contrasted computed tomography (NCCT sensitivity 94-100% and specificity 92-100%), intravenous pyelogram (51-87% and 92-100% respectively) and doppler ultrasound, urography (sensitivity of 44-77% and specificity of 80-87%) Other reviews and articles are advised intake small amounts of fluids at frequent intervals. Patient is recommended enough oral fluids to produce 2.5 liters of urine; with probability of spontaneous calculus clearance based on stone size, the rates were 76%, 60%, 48%, and 25% for 2-4 mm, 5-7 mm, 7-9 mm, and >9 mm diameters, respectively.

Conclusions. Based on the foregoing we can confirm forced intravenous hydrotherapy is a common practice, but unscientific, because delays calculus clearance. As well as have shown no benefits still may have significant side effects.

Key words: ureteral colic, fluid intake, urolithiasis