

## **The Efficacy of Dexamethasone as a Facilitator Agent for Expulsion of Lower Ureteral Stones**

**Back ground:** Urolithiasis affects about 8% to 15% of the population. Ureterolith is as a facilitator agent for inflammatory reaction and edema in ureter; therefore, Corticostroids with the anti- inflammatory effect causes decrease to ureter's edema. The aim of this study is to determine the efficacy of dexamethasone as a facilitator agent for the passage of lower ureteral stones.

**Materials and Methods:** There were 88 patients (66 male and 22 female, mean age 32/6 years) with lower ureteral stones enrolled in this study. Exclusion criteria were the presence of urinary tract infection, severe hydronephrosis, elevated serum creatinin, history of peptic ulcer disease. Patients were divided into two groups. Group A, (44 patients, 32 male, 12 female) received dexamethasone ampoules 8mgIM in 2 doses and analgesic (indomethacin capsules, 25 mg, TDS) for a maximum of 2 weeks. But patients in group B, (44 patients, 34 male, 10 female) received only analgesic capsules (indomethacin 25mg TDS). In cases of incomplete pain control, Intravenous pethidin was administered. The two groups were compared as regard to stone passage rate, time to stone passage, the amount of received pethidin and the need for intervention.

**Results:** The mean patient's age was 39/17 and 37/94 years in the treatment and control groups, respectively. The mean stone size was 7/45mm (A) and 7/48 mm(B), which was not significantly different. The stone expulsion rate was 69/1 in group A and 62/9% in group B, which was not significantly different ( $p=0/06$ ). The mean expulsion time was 4.65 days in groups A and 6/59 days and B, with a significant statistical difference ( $p=0/005$ ). Extra analgesic (pethidin) requirement averaged 62/5 mg and 82/35 mg in groups A and B, which was not significantly different ( $p=0/81$ ).

**Conclusion:** Dexamethasone is a safe and effective treatment for lower ureteral stones. Using this medication, stone passage rate increases and the time to stone passage and the need for intervention decreases.

**Keywords:** Lower Ureteral Stones\ Treatment \ Dexametason