

STONE DISEASE

doi: 10.1590/S1677-553820090006000011

Is there an adjunctive role of tamsulosin to extracorporeal shockwave lithotripsy for upper ureteric stones: results of an open label randomized nonplacebo controlled study

Agarwal MM, Naja V, Singh SK, Mavuduru R, Mete UK, Kumar S, Mandal AK

Department of Urology, Postgraduate Institute of Medical Education and Research, Chandigarh, Punjab, India

Urology. 2009; 74: 989-92

Objectives: To investigate the role of tamsulosin as an adjunct to management of upper ureteric stones (UUS) with extracorporeal shock wave lithotripsy (SWL).

Methods: In this prospective, randomized, open label study, patients with single UUS (for SWL) were randomly assigned into 2 groups based on whether they received 0.4 mg tamsulosin (group A and B, respectively) during treatment. Repeat SWL was performed at week 1, 3, and 5 after first session. Primary outcome variables were success rate and pain intensity.

Results: A total of 40 patients (20 each group) completed the requisite follow-up. Success rate was higher in group A after 1 SWL-session (55% vs 25%, respectively; $P = .05$). There was an insignificant trend of decreased number of days (30.7 +/- 19.7 vs 39.0 +/- 19.9; $P = .19$), number of SWL sessions (1.6 vs 2.0; $P = .10$), and pain experienced (score on visual analog scale, 25.3 +/- 17.9 vs 38.3 +/- 28.0, respectively; $P = .41$) in group A. Three in group A and 6 in B developed steinstrasse ($P = .69$). Overall, 1 in group A required auxiliary procedures as compared with 3 in control group ($P = .60$).

Conclusions: Tamsulosin improves clearance rate of UUS after single SWL. However, it does not provide significant advantage in terms of decreasing pain associated with this treatment.

Editorial Comment

The study is limited by a lack of placebo control - this would be a bigger issue had the authors noted an improvement in pain scores with tamsulosin. The study is also limited by the reliance on KUB for stone-free results.

The authors note that stone size correlated with the number of sessions required, days needed for stone passage and level of pain intensity. In view of this, it would be useful to perform a multivariate logistic regression to confirm that the use of alpha-blockers remains a significant variable to explain stone-free rates. Alternatively, it may be useful to evaluate the results stratified by stone size to determine if the impact of alpha-blockers is seen primarily with larger stones as compared to smaller stones. Indeed, it was noted that steinstrasse developed in 2/3 of patients with stones larger than 10 mm. The authors approach to repeat shockwave at 1 week diverges from common practice in the United States. It would be helpful to evaluate the impact of tamsulosin on stone-free rates and ancillary procedure rates at 2-4 weeks following single session SWL.

The authors have not adapted the techniques of ramp-up in energy settings or slow-treatment rates that have been demonstrated to improve stone fragmentation and decrease fragment size. With smaller fragment size, it is possible that the advantage of alpha-blockers may diminish.

Dr. Manoj Monga

Professor, Department of Urology

University of Minnesota

Edina, Minnesota, USA

E-mail: endourol@yahoo.com