Role of alpha blockers and 7-days catheterization in enhancing the success of trial void in acute urinary retention due to benign prostatic hyperplasia: a double-blind randomized control trial

Abstract

Background: Acute urinary retention (AUR) in patients with benign prostatic hyperplasia (BPH) is common. This study evaluated the efficacy of three alpha-blockers with urethral catheterization for 7 days in trial without catheter (TWOC).

Methods: This was a prospective, randomized, double-blind, active-control study conducted between November 2013 and May 2016. Patients aged more than 50 years, presenting with first-time painful AUR due to BPH were enrolled in this study. Eligible patients were randomized (1:1:1) to one of the three treatment groups to receive tamsulosin 0.4 mg, alfuzosin 10 mg or silodosin 8 mg for one week. The primary outcome measure was successful TWOC at 7 days.

Results: A total of 118 patients were included in the study (tamsulosin, n=40; alfuzosin, n=38; and silodosin, n=40). The baseline parameters were comparable between the three groups. A total of 84 (71.2%) patients had successful TWOC at the end of 7 days (tamsulosin, n=30 (75%); alfuzosin, n=32 (84%); and silodosin, n=22 (55%)) and was significantly ($p=0.015$) different between three groups. Higher age, larger volume at retention and higher prostate volume were significantly ($p<0.05$) associated with the failure of TWOC.

Conclusions: Results from this study demonstrate that there is a definite role of 7-day catheterization with alpha blockers in improving the rates of success of TWOC in men presenting with AUR due to BPH. The success of TWOC is multifactorial.