

Efficacy of preprocedural diclofenac in men undergoing double J stent removal under local anesthesia: A double-blind, randomized control trial

Abstract

Introduction: Double J (DJ) stents are often removed under local anesthesia using a rigid cystoscope. Patients experience significant pain during this procedure and also continue to have discomfort during voiding for a few days. We assessed the efficacy and safety of preemptive oral diclofenac in pain relief in patients undergoing DJ stent removal (DJSR) by rigid cystoscopy compared to placebo.

Methods: Consecutive consenting male patients undergoing DJSR under local anesthesia between March 2014 and July 2015 were enrolled. Patients were randomized to receive 75 mg oral diclofenac (Group A) or placebo (Group B) 1 h before procedure by double-blind randomization. Intraurethral 2% lignocaine gel (25 ml) was used in both groups. Pain during rigid cystoscopy, pain at the first void, and at 24 h after cystoscopy was assessed using visual analog scale (VAS) (0-100). Adverse reactions to diclofenac and episodes of acute urinary retention, if any, were assessed (Trial registered at clinicaltrials.gov: [NCT02598102](https://doi.org/10.1186/1745-7256-10-102)).

Results: A total of 121 males (Group A [$n = 62$]; Group B [$n = 59$]) underwent stent removal. The median (Interquartile range) VAS during the procedure in Group A was 30 (30) and Group B was 60 (30) ($P < 0.001$), at first void was 30 (30) and 70 (30) ($P < 0.001$) and at 24 h postoperatively was 20 (20) and 40 (20) ($P < 0.001$). The incidence of epigastric pain, nausea, vomiting, and acute urinary retention was comparable in the two groups ($P > 0.05$).

Conclusions: A single oral dose of diclofenac administered 1 h before DJSR using rigid cystoscope under intraurethral lignocaine anesthesia decreases pain significantly during and up to 24 h postprocedure with minimal side effects.