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Comparison of topical anesthetics and lubricants prior to urethral catheterization in males: a randomized controlled trial

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Erratum in

[Acad Emerg Med](#). 2014 Feb;21(2):225. Gaudio, Flavio [corrected to Gaudio, Flavio]

Abstract

Although male urethral catheterization in the emergency department (ED) is both common and painful, few studies have evaluated the use of topical anesthesia prior to catheterization.

Objectives: To determine whether pretreatment of the urethra with topical lidocaine reduces the pain associated with urethral catheterization.

Methods: This was a prospective, double-blind, randomized clinical trial of 36 alert, cooperative male adult patients requiring urethral catheterization, without allergies to the study medications or contraindications to their use, from a suburban university-based ED. Patients in the experimental group had topical lidocaine 2% gel injected in their urethras, whereas control patients received intraurethral lubrication only. Standardized catheterization with a no. 16 Foley was performed followed by pain assessment. The primary outcome measured was pain of catheterization on a 100-mm visual analog scale. Other outcomes included ease of insertion and procedural bleeding.

Results: The authors evaluated 36 patients evenly distributed between study groups. Mean age was 62 years (range 22-85). Compared with controls, patients pretreated with lidocaine experienced significantly less pain of catheterization (38 +/- 28 mm vs. 58 +/- 30 mm; mean difference 20 mm; 95% confidence interval [95% CI] = 0.4 to 32; p = 0.04) and less pain of injection (23 +/- 17 mm vs. 40 +/- 25 mm; mean difference 17 mm; 95% CI = 3 to 32 mm; p = 0.02). There were no differences in the number of attempts and incidence of adverse events between the groups.

Conclusions: Use of topical lidocaine gel reduces the pain associated with male urethral catheterization in comparison with topical lubricants only.

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