Dorsal penile nerve block versus eutectic mixture of local anesthetics cream of pain relief for circumcision: A meta-analysis

PLOS One

Zhigang Zhao[1]

[1]Department of Urology & Andrology, Minimally Invasive Surgery Center, The First Affiliated Hospital of Guangzhou Medical University, Guangdong Provincial Key Laboratory of Urology, No.1-3, Kangda Road, Guangzhou, Guangdong Province, China, 510230.

Working

Sep 18, 2018 dx.doi.org/10.17504/protocols.io.r6vd9e6

Zhigang Zhao

EXTERNAL LINK

https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0203439

THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION

Wang J, Zhao S, Luo L, Liu Y, Zhu Z, Li E, et al. (2018) Dorsal penile nerve block versus eutectic mixture of local anesthetics cream for pain relief in infants during circumcision: A meta-analysis. PLoS ONE 13(9): e0203439. https://doi.org/10.1371/journal.pone.0203439

PROTOCOL STATUS

Working

1 We systematically searched Medline via PubMed, Embase, CNKI and the Cochrane Library Center Register to identify randomized controlled trials up to March 2018. English and Chinese were imposed in the search strategy. The following subject headings and keywords were used for each electronic databases: "(((2-(Diethylamino)-N-(2,6-Dimethylphenyl)Acetamide)OR((((((((((((((("Lidocaine" [Mesh]) OR Lidocaine Monohydrochloride, Monohydrate) OR Dalcaine) OR Xylocitin) OR Xylocaine) OR Xylesthesin) OR Octocaine) OR Lidocaine Sulfate (1:1)) OR Xyloneural) OR Lidocaine Monoacetate) OR Lidocaine Monohydrochloride) OR Lidocaine Hydrochloride) OR Lidocaine Hydrocarbonate) OR Lidocaine Carbonate) OR Lidocaine Carbonate (2:1)) OR Lignocaine) OR 2-2EtN-2MePhAcN))) AND ((((("Circumcision, Male"[Mesh]) OR Male Circumcision) OR Circumcisions, Male) OR Male Circumcisions)". We searched for additional randomized controlled trials by examining the reference lists of the articles and published reviews. We searched for additional relevant studies by examining the reference lists of the articles and published reviews. The randomized controlled trials that dorsal penile nerve block versus eutectic mixture of local anesthetics cream of pain relief in circumcision were included.

2 We extracted and recorded the data in a table to have a quality assessment. Data were analyzed using the Review Manager 5.1.2 statistical package (Cochrane Collaboration Software) [1], and the clinical outcomes were reported as odds ratio (OR). The corresponding 95% confidence interval (95% CI) and the unadjusted pooled OR were calculated, considering P values less than 5% ($P<0.05$).

1. Review Manager (RevMan) [Computer program]. Version 5.1. Copenhagen: The Nordic Cochrane Centre. The Cochrane Collaboration, 2011.

3 Bias assessment. The quality of included studies were assessed using Cochrane's risk of bias assessment tool. We executed the funnel plot test described by e.g. Egger et al [1] to determine the possibility of any publication bias. For all analyses, a forest plot was generated to display results.

1. Egger M, Davey Smith G, Schneider M, Minder C: Bias in meta-analysis detected by a simple, graphicaltest.BMJ. 1997; 315(7109):629–34. Epub 1997/10/06.

4 Sensitivity analysis. Sensitivity analysis was performed with the method of calculating the unadjusted pooled OR by repeating the overall analysis after omitting each study in turn.

5 Heterogeneity measuring. A statistic for measuring heterogeneity was calculated through I2 method (25-50% was considered low-level heterogeneity, 50-75% moderate-level heterogeneity and >75% high-level heterogeneity). We carried out an additional analysis using the random-effects model described by e.g. DerSimonian et al [1], to see if there was statistical heterogeneity found in the meta-analysis. Data were analyzed using the Review Manager 5.1.2 statistical package (Cochrane Collaboration Software) [2].

1. DerSimonian R, Laird N: Meta-analysis in clinical trials. Control Clin Trials. 1986; 7(3):177–88. Epub1986/09/01.
2. Review Manager (RevMan) [Computer program]. Version 5.1. Copenhagen: The Nordic Cochrane Centre. The Cochrane

This is an open access protocol distributed under the terms of the **Creative Commons Attribution License** (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Collaboration, 2011.

This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

This is an open access protocol distributed under the terms of the **Creative Commons Attribution License** (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited