

The aim of this study was to compare the effectiveness of vapocoolant spray and EMLA cream in reduction of pain during venous cannulation in 6-12 years old children” Dalvandi et al (2017).

Abstract:

Introduction: Venous cannulation is the most common procedure in emergency departments. The aim of this study was to compare the effectiveness of vapocoolant spray and EMLA cream in reduction of pain during venous cannulation in 6-12 years old children.

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Methods: The study was a randomized clinical trial with a crossover design. It took place between June and December 2015 at Ali-Asghar hospital in Tehran, Iran. 40 Thalassemic children who need regular blood transfusions were randomly assigned in two groups. The pain of intravenous cannulation was measured using a visual analogue scale for pain (VAS-P). With the crossover design each patient received vapocoolant spray and EMLA cream in the next two visits. The patients were allocated into two groups (A and B). The patients in Group (A) received Vapocoolant spray in the first visit and EMLA cream in the second visit before intravenous cannulation. The patients in Group (B) group were exposed to the opposite order.

Results: The pain after Vapocoolant spray was 3.22 ± 1.18 which was significantly lower than control (7.12 ± 1.36) and higher than EMLA cream (0.77 ± 1.09), $p > 0.001$. The anxiety before cannulation had a significant effects on the reported pain by children. The ANCOVA showed that despite the effects of anxiety the results did not change significantly.

Conclusion: The results indicated that vapocoolant spray was not as effective as EMLA cream, in the event of an emergency and in patients with allergic reactions to lidocaine and procaine ingredients Vapocoolant is an efficacious alternative.

Reference:



Dalvandi, A., Ranjbar, H., Hatamizadeh, M, Rah-Gui, A. and Bernstein, C. (2017) Comparing the effectiveness of vapocoolant spray and lidocaine/procaine cream in reducing pain of intravenous cannulation: A randomized clinical trial. The American Journal of Emergency Medicine. February 28th. .

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