

To compare the efficacy of an oral sucrose solution vs. a placebo in reducing pain in infants undergoing venipuncture without cannulation” Gouin et al (2017).

Abstract:

BACKGROUND: Few clinical trials evaluating the efficacy of oral sweet solutions for procedures in the emergency department (ED) have been published.

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OBJECTIVES: To compare the efficacy of an oral sucrose solution vs. a placebo in reducing pain in infants undergoing venipuncture without cannulation.

METHODS: A randomized, double-blinded clinical trial was conducted in a pediatric ED. Infants 1 to 3 months old were randomly allocated to receive 2 mL of 88% sucrose or 2 mL of placebo, 2 min prior to venipuncture. The outcome measures were the difference in pain levels as assessed by the Face, Legs, Activity, Cry and Consolability Pain Scale (FLACC) and Neonatal Infant Pain Scale (NIPS) scores, crying time, and variations in heart rate.

RESULTS: Eighty-two participants were recruited. Data were analyzed for 38 patients from each group (excluding protocol deviations). The mean difference in FLACC scores 1 min post venipuncture compared with baseline was $2.84 \pm .64$ (sucrose) vs. $2.71 \pm .62$ (placebo) ($p = 0.98$). For the NIPS score, it was $2.32 \pm .47$ (sucrose) vs. $1.63 \pm .49$ (placebo) ($p = 0.60$). The difference in the median crying time was not statistically significant between the two groups: 63.0 ± 3 (sucrose) vs. 48.5 ± 5 s (placebo) ($p = 0.17$). No significant difference was found in participants' heart rates 1 min post venipuncture compared with baseline: 33 ± 6 (sucrose) vs. 24 ± 5 beats per minute (placebo) ($p = 0.44$).

CONCLUSIONS: In infants 1 to 3 months of age undergoing simple venipuncture, administration of an oral sweet solution did not statistically decrease pain scores, and participants' heart rate variations and crying time were not significantly changed.

Reference:

Gouin, S., Gaucher, N., Lebel, D. and Desjardins, M.P. (2017) A Randomized Double-Blind Trial Comparing the Effect on Pain of an Oral Sucrose Solution vs. Placebo in Children 1 to



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3 Months Old Undergoing Simple Venipuncture. The Journal of Emergency Medicine. November 3rd. .

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