
Abstract:
OBJECTIVE: Local anesthetic agent is not usually used to reduce pain experienced by children undergoing venepuncture. This study was undertaken to determine comparative efficacy of local anesthetic cream, Indian classical instrumental music and placebo, in reducing pain due to venepuncture in children.

METHODS: Children aged 5-12 yr requiring venepuncture were enrolled in a prospective randomized clinical trial conducted at a tertiary care center. They were randomly assigned to 3 groups: local anesthetic (LA), music or placebo (control) group. Eutactic mixture of local anesthetic agents (EMLA) and Indian classical instrumental music (raaga-Todi) were used in the first 2 groups, respectively. Pain was assessed independently by parent, patient, investigator and an independent observer at the time of insertion of the cannula (0 min) and at 1- and 5 min after the insertion using a Visual Analog Scale (VAS). Kruskal- Wallis and Mann-Whitney U tests were used to assess the difference amongst the VAS scores.

RESULTS: Fifty subjects were enrolled in each group. Significantly higher VAS scores were noted in control (placebo) group by all the categories of observers (parent, patient, investigator, independent observer) at all time points. The VAS scores obtained in LA group were lowest at all time points. However, the difference between VAS scores in LA group were
significantly lower than those in music group only at some time-points and with some categories of observers (parent: 1 min; investigator: 0-, 1-, 5 min and independent observer: 5 min).

CONCLUSION: Pain experienced during venepuncture can be significantly reduced by using EMLA or Indian classical instrumental music. The difference between VAS scores with LA and music is not always significant. Hence, the choice between EMLA and music could be dictated by logistical factors.