This study found that topical anesthetic agents were effective in reducing pain during venipuncture” Kaur et al (2019).

Abstract:

BACKGROUND: Neonates being nonverbal are unable to express their pain leading to underestimation of their pain and hence insufficient pain relief. Neonatal pain is assessed by pain scales based on the behavioural and physiological changes that occur in response to painful stimuli. This cross sectional study was conducted at a tertiary care centre using Premature Infant Pain Profile (PIPP) score with 4% lidocaine as local anaesthetic agent to produce surface anaesthesia of skin prior to intravenous cannulation.

METHODS: Sample size was collected by simple randomisation method. Our study groups included 50 term and 50 preterm neonates with POG of 28-40 weeks requiring IV cannulation. Heart rate (HR), SpO2, facial expressions and behavioural state were noted before venipuncture and after venipuncture using PIPP scale. Same cohort of patients was assessed for pain response after applying 4% lidocaine cream during future venipuncture with help of PIPP score.

RESULTS: The PIPP score in preterm group before and after anesthesia was 11.28 ± 3.72 and 9.58 ± 3.39. PIPP score in term group before and after anesthesia was 11.54 ± 2.84 and 9.04 ± 2.97. There was reduction in mean PIPP score after using topical anesthetic agent in both study groups and the results were statistically significant.

CONCLUSION: This study found that topical anesthetic agents were effective in reducing pain during venipuncture. Based on the facts of the study, it is recommended that pain scoring should be a part of routine monitoring in neonatal intensive care units and appropriate measures should be used to reduce pain.

You may also be interested in...

- Complex regional pain syndrome following venipuncture
- Venipuncture pain among patients attending the Emergency Department
- Oral 24% sucrose for pain control in healthy newborns receiving venipuncture
Reference: