

P 48. ANALGESIC EFFECT OF SKIN -TO -SKIN CONTACT IN KANGAROO POSITION IN PRETERM NEWBORNS

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Background: Progress in monitoring and care of critically ill neonate has resulted in subjecting these babies to multiples of invasive procedures.

Pain experienced during and after these procedures can be alleviated by components of "Nursing - suckling complex" namely, Non-nutritive sucking, various tastes and flavors and skin-to-skin contact. While the first 2 components of Nursing Suckling interaction have been well studied, the 3rd component namely, Skin-to-Skin contact has not received much attention in

pain literature.**Objective:** To determine whether Skin-to-Skin contact between mothers and their newborn infants in Kangaroo position will reduce pain during heel lancing.**Subjects & methods** Prospective randomized controlled trial in Level III NICU. 20 preterm infants (with postnatal age < 4 weeks but maturity score < 37 by New Ballard Scoring in stable cardio respiratory status and on full feeds) were evaluated in Stage III & IV of Prechtl and Beintema scale, after providing Skin-to-Skin contact in Kangaroo mother care position (Mothers lie down on the bed in supine position, with their infants placed in Kangaroo bags in skin- to skin contact) for 15 minutes. Physiological (Heart rate, Respiratory rate and Oxygen saturation) and behavioral parameters (duration of cry and grimace) of pain were evaluated following heel lancing using an autolet and compared with an equal number of controls matched for gestational & chronological age, birth weight and all the baseline parameters (HR, RR, SaO₂, cry & grimace). Babies with age < 4 hrs, Neurologically abnormal, Exposure to sedatives / analgesics within 5 days, Gross congenital anomalies were excluded. **Results:** There was no significant difference in change of HR, RR and SaO₂ in Skin-to-Skin contact group as compared to controls following heel lancing. However, duration of cry and grimace were both significantly shorter in Skin-to-Skin contact group as compared to controls ($p < 0.001$ for both *cry* and *grimace*).

Conclusion: Skin-to-skin contact is an effective means of alleviating behavioral parameters of pain in preterm newborns.