**Neonatal Analgesia: Effect of Mother’s Milk Odour on Perception of Procedural Pain in Preterm Neonates**

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ABSTRACT

**Introduction**

Neonatal pain in preterm neonates can adversely affect their development in multiple domain as nociceptive changes, altered brain development, stress system and functional abilities. Many innovative method to use non pharmacology interventions are considered for reducing neonatal pain in preterm neonates. We have plan research to determine whether odour of own mother milk is effective to reduce the pain of preterm neonates who are not able to access their own mother’s milk for any reason.

**Materials and Methods:**

**Objective:** To determine analgesic effect of odour of own mother’s milk on procedural pain in preterm (34-36weeks) neonates.

**Design:** Randomized control Trial

**Methodology:** Total 100 preterm neonates (gestational age between 34-36week), delivered via vaginal delivery without any antenatal, intranatal and postnatal risk factors are included in the study. Enrolled neonates are randomized in two groups, group A and group B. In group A, the gauge piece soaked with 2 ml of mother’s milk kept at level of 2 cm away from nostrils of neonates and in group B gauge piece soaked with 2 ml of sterile water was kept 2 cm away from nostrils before 2 minutes of intramuscular injection of hepatitis B vaccine. During the procedure behavioural response, maximum heart rate, minimum spo2 and duration of cry will be recorded through video and PIPP score was analysed.

**Results**

 There was significant decrease in maximum of heart rate in Group A (EBM group) (132.22±13.28) as compare to group B (sterile water group) (136.54±25.12) with significant p value of <0.05. There was significant decrease in saturation fall in group A (EBM group) (96.74±4.72) as compare to group B (sterile water group) (94.48±7.44) with a significant p value <0.05. There was significant decrease in PIPP in group A (EBM group) (8.72) as compare to group B (sterile water group) (14.12) with a significant p value <0.05.

**Conclusion**

Inhalation of own mother’s milk for is effective analgesic for mild to moderate pain in preterm neonates. Inhalation of own mother milk before procedure or during procedure can be use as non pharmacology intervention to reduce pain in preterm neonates in whom breastfeeding is contraindicated due to any reason.

**Key words**

Neonatal analgesia, Preterm, Odour of mother’s milk