The calming effect of mother breast milk odor on neonates during BCG vaccination

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The relief of pain or distress during health related procedure is a basic human right. It appears that early pain/stress may influence the developing brain and thereby neurodevelopmental and stress-sensitive behaviors, particularly in the neonates. Non-pharmacological interventions help parents to reduce their infant's stress which may be brain-protective. The study aims to determine the calming effect of mothers' breast milk odor on neonate during BCG vaccination. The research study was carried out at the immunization clinic of BPKIHS Dharan. Probability sampling technique and post-test only design was used. 100 term neonates were enrolled and randomly assigned into two groups using lottery method without replacement. During BCG vaccination, experimental group neonates were exposed to own mother milk odor and non-experimental group was deprived of it. A filter paper containing mother breast milk 2 ml was kept near the neonate's nose, above the lips from 2 minutes prior vaccination and was continued during vaccination. Video recording of neonates were done to record the neonates' pain response during vaccination. The recorded video was compared with NIPS tool for the interpretation of neonates' response to pain. The mean rank of pain was 32.89 in mother breast milk exposed neonates whereas in non-exposed group it was 62.11 with p value of <0.001. The NIPS score was found to be significantly lower in neonates exposed to the mother breast milk odor than in non-exposed group. Breast milk odor has an analgesic effect and can be used as a safe method for pain relief during vaccination.

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