

O2 Saturation Comparison Between Breast Milk Feeding and Tube Feeding in Very Low Birth Weight Neonates

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Abstract : Background & Aim: Preterm infants born at less than 34 weeks postconceptional age are not as neurologically mature as their term counterparts and thus have difficulty coordinating sucking, swallowing and breathing. As a result, they are traditionally gavage fed until they are able to oral feed successfully. The aim of study was to evaluate comparative effect of orogastric and breast feeding on oxygen saturation in very low birth weight infant (<1500gm). Patients and Methods: In this clinical trial all babies admitted in the Neonatal Research Center of Imamreza Hospital, Mashhad during a 4 months period were elected. Criteria for entrance to study included birth weight \leq 1500 grams, exclusive breastfeeding, having no special problem after 48 hours, receiving only routine care and intake of milk was 100cc/kg/day. Each neonate received two rounds of orogastric and breast feeding in the morning and in the afternoon, during which mean oxygen saturation was measured by pulse-oxymetry. During the study the heart rate and temperature of the neonates were monitored, and in case of hypothermia, bradycardia (less than 100 per minute) or apnea the feeding was discontinued and the study was repeated the following day. Data analysis was carried out using SPSS. Results: Fifty neonates were studied. The average birth weight was 1267.20 ± 165.42 grams and average gestational age was 31.81 ± 1.92 and female/male ratio was 1.2. There was no significant statistical difference in arterial oxygen saturation in orogastric and breast feeding in the morning and in the afternoon. ($p=0.16$ in the morning and $p=0.6$ in the afternoon). There was no complication of apnea, hypothermia or bradycardia. Conclusion: There was no significant statistical difference between the two methods in arterial oxygen saturation. It seems that oral feeding (which is a natural route) and skin contact between the mother and neonate causes a strong emotional bonding between the two and brings about better social adaptation for the neonate. Also shorter period of stay in hospital is more preferred, and breast feeding should be started at the earliest possible time after birth.

Keywords : Very low birth weight (V.L.B.W), O2 Saturation, Breast Feeding, Tube Feeding

Conference Title : ICNNPTSM 2023 : International Conference on Neonatal Nursing Practice and Thermal Stability Management

Conference Location : Toronto, Canada

Conference Dates : July 10-11, 2023