Study of Relationship between Hypernatremia in Neonates and Way of Maternal Breast Feeding

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Introduction:
The extreme reduction in breast milk intake during the first days of life leads to weight loss, kidney failure and hypernatremia. The aim of this study was to examine the relationship between hypernatremia in neonates and way of maternal breastfeeding in hospitalized infants in Ghaem Hospital of Mashhad.

Materials and Methods:
After obtaining parental consent, 687 infants referred to the neonatal ward and clinic of Ghaem hospital of Mashhad participated in this cross-sectional study. First, complete history of the mother and baby regarding pregnancy and delivery problems, way of breastfeeding, and the first time of lactation beginning were obtained. Then neonates were divided into two groups of normal and hypernatremia (sodium≥150 mg/dl) according to the amount of blood sodium level. Data was analyzed using correlation tests, chi-square, t test and Mann-Whitney tests with SPSS software (version 11.5).

Results:
According to the findings of this study, the average age (P=0.911), Apgar scores (P=0.192), time of the first lactation (P=0.081) and breast feeding duration (P=o.108) showed no statistically significant difference between normal and hypernatremia groups. But the admission weight (P=0.011), times of lactation (P=0.108), breast-feeding status (P=0.001), let down reflex in mother's breast (0.001), kind of nutrition (P=o.oo1), breast filling after childbirth and lactation (P=0.000), and breast softening after breast-feeding (P=0.000), urination frequency (P=0.000), defecation frequency (P=0.000) and duration of maternal hospitalization (P=0.007) showed statistically significant difference between the groups.

Conclusion:
Neonatal weight control, times of lactation, lactation status, breast changes during breast feeding and frequency of urination and defecation may be effective in the early detection of the reduced breast milk intake and the control of the related complications.

Key Words: Breast Feedinf, Breast Milk, Hypernatremia, Neonate, weight loss.

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