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Comparison the growth pattern of neonates in breast feed versus formula feed infants

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Background: Breast milk and colostrum are the first feeding sources of infant, providing nutrients, growth factors and immunological components, which are crucial for the newborn's optimum development and health. So we conducted this study to compare the growth pattern of neonates in breast fed versus formula fed infants.

Objective: To determine the frequency of neonates on exclusive breast feeding and to compare the growth in terms of gain in length and weight of breast fed compared to formula fed infants.

Material & Methods: This present cross sectional survey was done in the Department of Pediatrics, King Edward Medical University, Mayo Hospital, Lahore from 2015 July to 2016 July. The Non Probability, Purposive sampling technique was used in this study. An informed verbal consent was obtained from their parents. Demographic variables (name, age, gestational age at birth, contact number) were also obtained. Information on type of feeding was obtained from mothers. Then neonates were divided in two groups on the basis of type of feeding (i.e. breast feeding or formula feeding). Weight of neonate was measured by digital weight balance. Child's Length was measured using an infantometer. Then mothers were advised to visit Department of Pediatrics, King Edward Medical University, Mayo Hospital, and Lahore regularly till 4 months. The Weight and Length of infants were again measured. A predesigned questionnaire was used to collect information. Weight and length was measured as per operational definition. Both groups were compared by using t-test. $p < 0.05$ was taken as significant.

Results: In this study the mean age of the patients was 16.56 ± 6.26 years and the mean gestational age of the patients was 8.52 ± 0.97 weeks. The male to female ratio of the patients was 1.3:1. Statistically there was highly significant difference found between the weight gain in study groups at 10th, 14th week and 4th month follow up i.e. $p\text{-value} < 0.05$.

Conclusion: The prevalence of breastfeeding in infants in our study was 52.3%. Our results showed that the breast fed infants had better weight gain than formula fed infants; however no statistically significant difference was observed in gain in length between the breast fed and formula fed infants.

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