

Effect of Fortification of Expressed Human Breast Milk with Olive Oil and Skimmed Milk in Improving Weight Gain in Very Low Birth Weight Neonates and Shortening Their Length of Hospital Stay

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Abstract : Objective: The aim of this study was to observe the effect of fortification of expressed human breast milk with olive oil and skimmed milk in improving weight gain in very low birth weight neonates and shortening their length of hospital stay. Study Design and place: A randomized controlled trial was carried out at the Combined Military Hospital Lahore from March 2018 to March 2019. Methods: Neonates admitted with very low birth weight and gestational age of < 34 weeks were included in the study. Sixty babies were enrolled using non-probability consecutive sampling; a random number table was used to allocate them into a fortification group and a control group. The control group received expressed milk alone, while olive oil 1 ml twice daily and skimmed milk 1 gram in every third feed were added to expressed milk in the fortification group. Data was analyzed on SPSS 20. Proportions were compared by applying the chi-square test. An independent sample t-test was applied for comparing means. A p-value of ≤ 0.05 was considered significant. Results: The study comprised of 60 neonates, with 30 in each of the groups. Weight gain was 24.83 ± 5.63 in the fortification group and 11.72 ± 3.95 in the control group ($p = < 0.001$). Mean hospital stay was 20.57 ± 16.511 in the fortification group and 27.67 ± 8.89 in the control group ($p = < 0.043$). Conclusion: Olive oil and skimmed milk fortification of breast milk was effective for weight gain and reducing the length of hospital stay in very low birth weight neonates.

Keywords : fortification, olive oil, skimmed milk, weight gain

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