

POSTPRANDIAL OSMOLALITY OF GASTRIC CONTENTS IN VERY LOW-BIRTH-WEIGHT INFANTS FED EXPRESSED BREAST MILK WITH ADDITIVES

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Abstract. The objective of the study was to evaluate the effect of each additive [FeSO_4 , multivitamin (MTV), and vitamin E] on the postprandial osmolality of expressed breast milk (EBM) at 0, 30, 45 and 60 minutes. Babies born at Songklanagarind Hospital from 1 August, 2005 to 31 December, 2006 were studied; EBM was collected from mothers with a child born at an estimated gestational age less than 32 weeks or whose babies had a birth weight less than 1,500 grams. The volume of EBM depended on daily needs. The osmolality was determined by the additives in the EBM both before and after administration of each additive and in the gastric contents after gavage feeding at 0, 30, 45 and 60 minutes. Twenty-six infants were enrolled in the study. The median postprandial osmolality of EBM with MTV at 0, 30, 45 and 60 minutes were 413, 386.5, 388 and 383 mOsm/kg, respectively. At no time was the osmolality of FeSO_4 or vitamin E-mixed EBM above 400 mOsm/kg.

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