

Sodium supplementation in very low birth weight infants fed on their own mothers milk I: Effects on sodium homeostasis

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Date: 1992

Abstract:

Sodium supplementation was done on 41 very low birth weight (VLBW) preterm infants with 25 other infants of similar weight status as controls. All the infants were fed on their own mothers milk whose sodium and potassium content was determined. Serum and urinary sodium, potassium and creatinine levels were determined in both groups during the study period of six weeks. Determination of weight gain, length gain and head circumference gain showed that these anthropometric parameters are significantly increased by sodium supplementation while sodium and potassium concentrations were not significantly affected. There were no cases of either hypernatraemia or hyponatraemia though renal excretion of sodium was very high in the supplemented group. Conclusions drawn from the study are that very little weight gain could have been due to fluid retention and that though sodium supplementation does not affect sodium profiles in these infants it has significant effect on their growth rate which may be due to its indirect/direct association with bone and protein metabolism