

Influence of malnutrition on the course of childhood bacterial meningitis

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Background: Malnutrition may be an important cofactor explaining poor outcome of childhood bacterial meningitis (BM) in developing countries. We examined its effect in Latin American children.

Methods: The weight-for-age z score was determined for 482 children with BM aged 2 months to 5 years. Normal weight (z score from >-1 to $<+1$), underweight (z score <-1) and overweight (z score $>+1$) children were compared on admission, in-hospital and at discharge. Using uni-and multivariate analysis, we sought for associations between malnutrition and 3 different outcomes. **Results:** The mean z score was -0.41 ± 1.54 , with a normal distribution. Overall, 260 (54%) patients were of normal weight, 151 (31%) underweight, and 71 (15%) overweight. Compared with others, underweight patients had on admission a lower Glasgow coma score ($P = 0.0006$) and cerebrospinal fluid glucose concentration ($P = 0.03$), and a slower capillary filling time ($P = 0.02$). Their death rate was higher ($P = 0.0004$) and they survi