Abu Sadat Mohammad Sayeem Bin Shahid et al., J Community Med Health Educ 2019, Volume 9
DOI: 10.4172/2161-0711-C3-059

Risk factors for bacteremia in severely malnourished pneumonic children and their outcome

Abu Sadat Mohammad Sayeem Bin Shahid, Tahmeed Ahmed, K M Shahunja and Mohammod Jobayer Chisti
International Centre for Diarrhoeal Disease Research, Bangladesh

Background & Aim: Bacteremia is quite common in Severe Acute Malnourished (SAM) children with pneumonia, who often experience a fatal outcome, especially in developing countries. There is limited information in the medical literature on the risks of bacteremia in SAM children with pneumonia. We have examined the factors associated with bacteremia and their outcome in under-five children who were hospitalized for the management of pneumonia and SAM.

Methods: In this unmatched case-control study, SAM children of either sex, aged 0-59 months, admitted to the Dhaka Hospital of the International Centre for Diarrheal Disease Research, Bangladesh (icddr,b) with cough or respiratory distress and radiological pneumonia during April 2011 to July 2012 were enrolled (n=405). Those with pneumonia as well as bacteremia constituted the cases (n=18) and randomly selected SAM children with pneumonia without bacteremia constituted controls (n=54).

Results: A wide range of bacterial pathogens were isolated among the cases of which 13 (72%) were Gram negatives. Death rate was higher among the cases than the controls (28% vs. 9%) but the difference was not statistically significant (p=0.111). In logistic regression analysis, after adjusting for potential confounders, such as the lack of DPT/oral polio/HIV/hepatitis vaccination, measles vaccination, vomiting and clinical dehydration (some/severe) the SAM children with pneumonia as well as bacteremia more often had the history of lack of BCG vaccination (95% CI=1.17-29.98) and had diastolic hypotension (<50 mm of Hg) (95% CI=1.01-12.86) not only after correction of dehydration but also in its absence.

Conclusion: The results of our study suggest that history of lack of BCG vaccination and presence of diastolic hypotension in absence of dehydration on admission are the independent predictors of bacteremia in SAM children with pneumonia. The results indicate the importance of continuation of BCG vaccination to produce benefits beyond the primary benefits.

Biography

Abu Sadat Mohammad Sayeem Bin Shahid has his experience in public health especially in nutrition and other emerging problems like childhood TB and pneumonia in developing world. He has been involved in different epidemiological research starting from observational study to clinical trial for the last 8 years.

sayeem@icddrb.org

Notes: