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EDITORIAL COMMENTARY

Should Routine Use of Antibiotics in Uncomplicated SAM be Continued?

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Childhood undernutrition continues to be a significant global health problem with children from sub-Saharan Africa, south and south-east Asia regions most affected. It is an important contributing factor to childhood morbidity, mortality, and impaired intellectual development [1]. With improved understanding and available evidence, children with uncomplicated severe acute malnutrition (SAM) are increasingly being provided home based care with regular monitoring by community healthcare providers. The 2013 WHO guidelines recommend the use of ready-to-use-therapeutic-food and routine use of oral antibiotic for this subset of children [2]. However, quality of evidence for the recommendation is low and it was based on the epidemiological studies showing higher incidence of subclinical infections in this subgroup of children, and one RCT showing faster nutritional recovery in children receiving oral antibiotics [3]. There is also a concern of impact on the antimicrobial resistance with such a practice.

In the current issue of the journal, Rao et al. have tried to address this knowledge gap in their randomized controlled trial comparing oral amoxycillin (40 mg/kg/d for 1 wk) with placebo in children with uncomplicated SAM [4]. They did not observe any significant differences in the anthropometric parameters between control and intervention groups at 2 wk follow up; a longer follow-up would have been desirable. Details of the other supportive care provided to the enrolled children is unclear. While the hospitalization rate between control and intervention groups (2.1% vs. 6.5%) was different, this was not statistically significant. The study did not explore the impact on antimicrobial resistance (AMR). While impact on AMR is a concern, a recent trial evaluating the impact of use of antibiotics in children with uncomplicated SAM did not observe any difference in the gut resistome in two groups at 8 wk [5].

There is limited evidence exploring routine use of antibiotics in uncomplicated SAM. Trehan et al. reported significant difference with improved rates of nutritional recovery and reduction in mortality in those children who received routine oral antimicrobial prophylaxis [3]. However, high incidence of kwashiorkor and HIV infection in the enrolled children might have influenced the results favouring antimicrobial use. Isanaka et al. reported no significant difference in the likelihood of nutritional recovery in the two arms [6]. However, amoxicillin use was associated with shorter recovery time, lower rates of in-patient admissions and risk of mortality. There has also been interest in use of a single dose of azithromycin as an alternative to 7-d course of oral amoxicillin [7].

While the current study did not observe any effect of use of oral amoxicillin on nutritional parameters over 2 wk in children with uncomplicated SAM, the evidence would be insufficient to suggest any change in the current guidelines.

Declarations

Conflict of Interest None.

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