

Children with Acute Malnutrition Valeria Romano*

Abstract

Acute malnutrition is a nutritional shortage caused by a lack of energy or protein in the diet. In developing nations, children with primary acute malnutrition are widespread as a result of insufficient food supplies caused by social, economic, and environmental issues. Secondary acute malnutrition is usually due to an underlying disease causing abnormal nutrient loss, increased energy expenditure, or decreased food intake. Acute malnutrition leads to biochemical changes based on metabolic, hormonal, and glucoregulatory mechanisms. With nutrition-specific therapies, the majority of children with primary acute malnutrition can be managed at home (i.e., counselling of parents, ensuring household food security, etc.). Inpatient treatment is recommended in cases of severe acute malnutrition and consequences. The underlying cause of secondary acute malnutrition should be addressed.

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Introduction

Acute malnutrition is defined as a nutritional shortage caused by insufficient protein or calorie intake. Jelliffe coined the phrase "protein calorie malnutrition" in 1959, however it has since been supplanted by "acute malnutrition." Protein energy malnutrition was characterised by Olsen et al. [1] as nutritional deficiency in children in impoverished nations. Undernutrition in children is defined as a condition of nutrition in which a lack of energy, protein, or other nutrients causes quantifiable deleterious effects on tissue and body processes, as well as a clinical consequence of growth deviation [2].

Pediatric malnutrition is defined as "an imbalance between nutrient requirement and intake, resulting in cumulative deficits of energy, protein, or micronutrients that may negatively affect growth, development, and other relevant outcomes," according to the American Society of Parenteral and Enteral Nutrition (ASPEN) [3]. Malnutrition is caused by environmental/behavioral variables associated with decreased nutritional intake and/or delivery, or it is caused by illness (one or more diseases or injuries directly result in nutrient imbalance).

Primary acute malnutrition in children is caused by a lack of

food due to social, political, and environmental causes, and it is particularly prevalent in low- and middle-income countries [4,5]. Household food insecurity, poverty, poor nutrition of pregnant women, intrauterine growth restriction, low birth weight, poor breastfeeding and inadequate supplemental feeding, frequent viral infections, poor water quality, hygiene, and other factors are all to blame. As a result, primary acute malnutrition has a social rather than a biomedical cause, yet it is also complex. Poor water quality, sanitation, and hygiene practices, for example, are increasingly being blamed for the disease known as "environmental enteropathy," which contributes to acute malnutrition in children.

Repetitive exposure to pathogens in the environment leads to bacterial colonisation of the small intestine, inflammatory cell buildup in the mucosa, destruction to the intestinal villi, and, as a result, loss of nutrients, resulting in malnutrition. Secondary acute malnutrition is caused by abnormal nutrient loss, increased energy expenditure, or decreased food intake, and occurs frequently as a result of underlying, mostly chronic diseases such as cystic fibrosis, chronic renal failure, chronic liver diseases, childhood malignancies, congenital heart disease, and neuromuscular diseases. [4,5]

References

- Olsen E M, Peterson J, Skovgaard J M, Weile B, Jorgensen T, Wright C M (2007) Failure to thrive: The prevalence and concurrence of anthropometric criteria in a general infant population. *Arch Dis Child* 92: 109-114.
- Joosten K F, Hulst J M (2008) Prevalence of malnutrition in pediatric hospital patients. *Curr Opin Pediatr* 20: 590-596.

- 3 Mehta N M, Corkins M R, Lyman B, Malone A, Goday P S, et al. (2013) Defining pediatric malnutrition: A paradigm shift toward etiology-related definitions. JPEN J. Parenter Enteral Nutr 37: 460-481.
- 4 Grover Z, Ee L C (2009) Protein energy malnutrition. Pediatr Clin N Am 2009 56:1055-1068.
- 5 Koletzko B (2015) Pediatric Nutrition in Practice. Volume 113. World Review Nutrition Dietetics; Basel, Karger: 2015. pp. 139-146.