Acta Scientific NUTRITIONAL HEALTH (ISSN:2582-1423)

Volume 7 Issue 11 November 2023

Short Communication

Nutritional Disorder in Malaria Infection. Paper to be Clarified

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Received: October 09, 2023

Published: October 26, 2023

Nutritional status is considered an important risk factor and as a prognostic factor for infectious diseases, given its close relationship with the immune response against them, immersed in a bidirectional pattern of synergistic interaction, where a worse nutritional status contributes negatively to development and evolution of infections, and where infections cause a worsening of nutritional status. In this sense, it is noted that nutritional status can influence morbidity and mortality due to diarrhea and respiratory diseases, especially in children under 5 years of age; however, this does not seem to be the case for some parasitic diseases such as malaria [1,2].

Malaria is a parasitic disease caused by protozoa of the genus Plasmodium spp, transmitted by vectors of the genus Anopheles spp, endemic in tropical and subtropical regions because it involves multiple parasites and vector species, regions where, in addition, malnutrition is considered a serious health problem. public health with an important role in the genesis of anemia and therefore, in the origin of even more severe clinical conditions due to malaria due to the hemolysis of erythrocytes that involves the pathogenesis of its causal agents. It is a preventable, diagnosable and treatable disease, and although the burden of the disease has been reduced, about 40% of the world's population is at risk of infection [2,3].

The bidirectional negative relationship that enhances infection in the case of severe malaria seems to be an exception, since there are reports of protection against prevalent cerebral malaria and hyperparasitemia due to P. falciparum in children and adolescents with chronic malnutrition translated into delayed birth. growth and low weight, are also protected against new episodes of clinical disease, however, it is prudent to point out that some studies, few, show that malnutrition can contribute to deaths from malaria, although to a lesser extent when compared to other diseases. Likewise, research did not find a valid association between nutrition and subsequent mortality from malaria [2,4].

Some authors have been able to establish an association between P. vivax infection and malnutrition in children, although both species may have overlapping distributions in many endemic areas that may make identification difficult (and perhaps compromise this finding), so the difference observed between these two Plasmodium species can be explained by biological divergences due to their complex evolutionary history, since these parasites emerged independently as human pathogens due to the radiation of a clade associated with non-human primates and rodents, prior to the origin of hominids [5].

In the world, there are several studies carried out with the aim of determining the impact of nutritional status on malaria, their results were often inconsistent or with extremely different results due to factors such as the heterogeneity of the study population, methodological differences, species of the parasite and factors inherent to the parasite/host relationship. As well as the fact that randomized controlled trials are not practical and observational trials have not sufficiently controlled for confounding factors such as nutritional deficiencies, other infectious diseases and socioeconomic status [5,6].

The need for new and specific, rigorously standardized research is shared that increases the external validity and reliability of such a fascinating and complicated research topic, whose results are valid to facilitate debate among experts on the subject as a key element for understanding the infection. by Plasmodium spp and nutritional status, with the definitive objective of establishing health control policies based on education as an essential component to limit transmission.

Funding

No funding sources.

Conflict of Interest

None declared.

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