The potential role of vitamins in the management of Chagas disease

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Dear Editor,

In their recent article, Gusmão et al. provided interesting data[1]. Vitamins may play a significant role in ameliorating the pathological effects of Chagas disease. For example, benefits have been observed following the administration of ascorbic acid; supplementation with high doses of vitamin C have led to augmented clearance of trypanosomes, especially trypomastigotes[2]. Interestingly, the activity of ascorbate peroxidase is enhanced significantly by vitamin B12, and vitamin C augments the anti-parasitic activity associated with vitamin B12. Another recent study suggests that the combined use of gentian violet, ascorbic acid, and light to sterilize blood infected with Trypanosoma cruzi effectively prevents transfusion-based transmission of Chagas disease[3]. Other similar, recent data suggest that vitamin B12 may be of clinical value in the treatment of Chagas disease; vitamin B12 activity against trypomastigotes and epimastigotes is particularly significant[4]. Vitamin B12 mediates this anti-parasitic role by accentuating superoxide dismutase activity, which leads to augmented intracellular production of reactive oxygen species.

The above discussion points highlight that the combined use of vitamins C and B12 may play a significant role in the management of Chagas disease.

REFERENCES


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