

Trypanosoma cruzi: A possible control of transfusion-induced Chagas' disease by phenolic antioxidants

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The following phenolic antioxidant food additives were evaluated against *Trypanosoma cruzi* epimastigotes: BHT, BHA, gallic acid and its methyl, propyl, octyl, and lauryl esters, 2,4-di-tert-butyl-6-(4-methoxybenzyl)-phenol, 4,4'-isopropilidenediphenol, and protocatechuic acid and its ethyl ester. The inhibition of the respiration; the changes in motility, shape, and lysis of the parasites; and the human blood hemolysis caused by these chemicals were studied. Human blood samples experimentally contaminated with 2000 or 150,000 trypomastigotes per milliliter were freed of parasites after treatment for 24 hr at 4 °C with 5 or 10 mM BHT (2,6-di-tert-butyl-4-hydroxytoluene), respectively. Consequently, BHT and other phenolic compounds deserve further study to determine their role in preventing the transmission of Chagas' disease by blood transfusion. © 1990.