Zincum metallicum 5cH increases survival and improves clinical mice infected with Trypanosoma cruzi

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The Multicenter International Project suggests Zincum metallicum high diluted as an object of study in different experimental models. **Aim:** evaluate the effect of substance high diluted Zincum metallicum in murine experimental infection by Trypanosoma cruzi. **Metodology:** was performed a blind, controlled, randomized, using 60 swiss male mice, 56 days old, divided into groups: CNI - uninfected and untreated animals; CI - infected and untreated animals; infected and treated animals: ZN₅CHTA - Zinc 5ch and LAC₅CHTA - Lactose 5ch , 48 hours before and after infection, subsequently were treated 56/56 hours until 9th day of infection; ZN₅CHTTD - Zinc 5Ch and LAC₅CHTTD - Lactose 5CH everyday from the 4th of infection. Animals were inoculated with 1.400 blood trypomastigotes, strain Y-T. cruzi, intraperitoneally. Medicines were handled according to the Brazilian Homeopathic Pharmacopoeia[1], on separate days (first Lactose and then Zinc) and stored in different rooms. Microbiological testing (RDC n° 67MS-Brazil), in vivo biological test and toxicity test was performed. Treatment was diluted in water (1mL/100mL). Clinical (temperature, weight, water/foodintake and excreta)[2] and parasitological parameters (pre-patent and patent period, peak parasitemia, and parasitemia overall survival time)[3] were assessed daily. Data were compared BioEstat 5.0, significance level of 5 %. **Results:** ZN₅CHTA group had a higher survival time than their control LAC₅CHTA (p=0.004). ZN₅CHTA shows 55.7% probability of surviving to the 15th day after infection, while LAC₅CHTA 29.4%. ZN₅CHTA also provides significantly better performance (p= 0.0206) compared to CI, contrary to what occurs with LAC₅CHTA x CI (p=0.7410), showing once again the superiority of action ZN₅CHTA. There is no significant difference in survival between the different treatments schemes TA and TTD, either with ZN₅CH (p=0.0754) or LAC₅CHTA (p=0.9480), although ZN₅CHTA present the best trend toward benefit. Considering parasitological parameters ZN₅CHTA group had higher pre-patent period (PPP) meaning benefit to infected animals [4]. Although ZN₅CHTA present greater number of parasites in relation to LAC₅CHTA (p = 0.020) considering the 6-11th day of infection period, showing a better performance compared to the other groups as observed in other models [5]. **Conclusion:** ZN₅CHTA group had higher survival, greater pre-patent period and better clinical outcome compared to its LAC₅CHTA control and the other groups although it had higher total parasitemia, the posterior control of infection might be related to the increase of parasitemia in a previous period.
Figure 1. (A) Survival analyses and (B) Parasitemia curves of mice infected by T. cruzi and treated with Zinctum metallicum and lactose highdiluted.

Keywords: Trypanosoma cruzi, Zincum Metallicum, High dilutions.

References:

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