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 LACT₅CHTA - Lactose 5ch, 48 hours before and after infection, subsequently were treated 56/56 hours until 9th day of infection; ZN₅CHTDD - Zinc 5Ch and LACT₅CHTDD - 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 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 LACT₅CHTA (p=0.004). ZN₅CHTA shows 55.7% probability of surviving to the 15th day after infection, while LACT₅CHTA 29.4%. ZN₅CHTA also provides significantly better performance (p= 0.0206) compared to CI, contrary to what occurs with LACT₅CHTA 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 LACT₅CHTA (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 LACT₅CHTA (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 LAC 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 *Zincum metallicum* and lactose high-diluted.

**Keywords:** Trypanosoma cruzi, Zincum Metallicum, High dilutions.
References:


