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Clinical and parasitological assessment in mice treated with highly diluted *Atropa belladonna*

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Introduction: The infection by *Trypanosoma cruz*i is a public health problem and there is no effective treatment currently. Immunomodulatory effects of *Atropa belladonna* may offer benefits[1] **Objective:** To evaluate the effect of *A. belladonna* in murine infection by *T. cruzi.* **Methodology:** The experiment was blind, controlled and randomized by draw. Eighty five Swiss male mice, at 8 weeks of age, were infected with 1400 blood trypomastigotes of *T. cruzi* Y strain (via IP) and divided into the following groups: without treatment (**CI**), treated with the mother tincture of *A. belladonna* (GTM-HN Cristiano), treated with *A. belladonna* 5cH (**G5cH**), treated with *A. belladonna* 6cH (**G6cH**), treated with *A. belladonna* 30cH (**G30cH**). Cereal alcohol 70 ° GL was used for dilutions as well as water in final preparations (Sigma-SP-Brazil). Oral treatment, diluted with water (1mL/100mL water), offered *ad libitum* 48 hours before infection, available during 16h. After infection, treatment of 56/56h for 16h, until the 9th day of infection[2]. Parasitological parameters: Curve of parasitemia, total parasitemia (PT), Maximum Peak of Parasites (PMP), Pre-Patent Period (PPP), Patent Period (PP), and Survival. Clinical parameters: water, food, excreta, weight and temperature. **Results: G6cH** and **G30cH** groups displayed better survival rates (1.54 and 1.42 times versus IC), and higher curve of parasitemia **- G6cH** ($p = 0.00$), **G30cH** ($p = 0.02$) – when compared to **CI**. PMP was lower in **GTM** ($P = 0.01$) and **G5cH** ($p = 0.04$) groups; PT was lower in **GTM** ($p = 0.01$), **G5cH** ($p = 0.05$) and **G6cH** ($p = 0.05$) groups when compared to **CI**. There was no difference in PPP and PP parameters in all groups, with a tendency of a higher PPP in **G5cH** and **G6cH** groups and lower PPP in **G30cH**group.The mice weight was higher in **GTM** (<0,00), **G6cH** (=0,00) and **G30cH** (<0,00) groups when compared to **CI**. Concerning food and excreta, there was no statistic difference. **Discussion: G6cH** and **G30cH** groups showed higher survival although **G6cH** had also displayed higher PPP compared to group **G30cH**. Once PPP relates directly to survival [3], these two dynamizations deserve further studies, and 6cH is the best choice, since lower dynamizations are indicated for acute diseases[4]. The lower PMP observed in **GTM** and **G5cH** groups, as well as the lower PT in **GTM** group, does not lead to higher survival. The weight gain of sick mice is not predicted, due to the general debility caused by the infection with *T. cruzi* Y strain, thus, the weight gain observed in treated groups represents benefit[5]. This result confirms others data obtained with higly diluted[6] medicines, in which the direct relation between morbidity and parasitemia is not observed[7]. The therapeutic regimen / dynamization which offers the best ultimate benefit to the host is that one in which the host clearly suffers the action of the parasite[3], implying greater reaction and infection control. **Conclusion:** 6cH and 30cH *A. belladonna* perform better on the murine infection by *T. cruzi*. In these potencies, survival was inversely proportional to PT.

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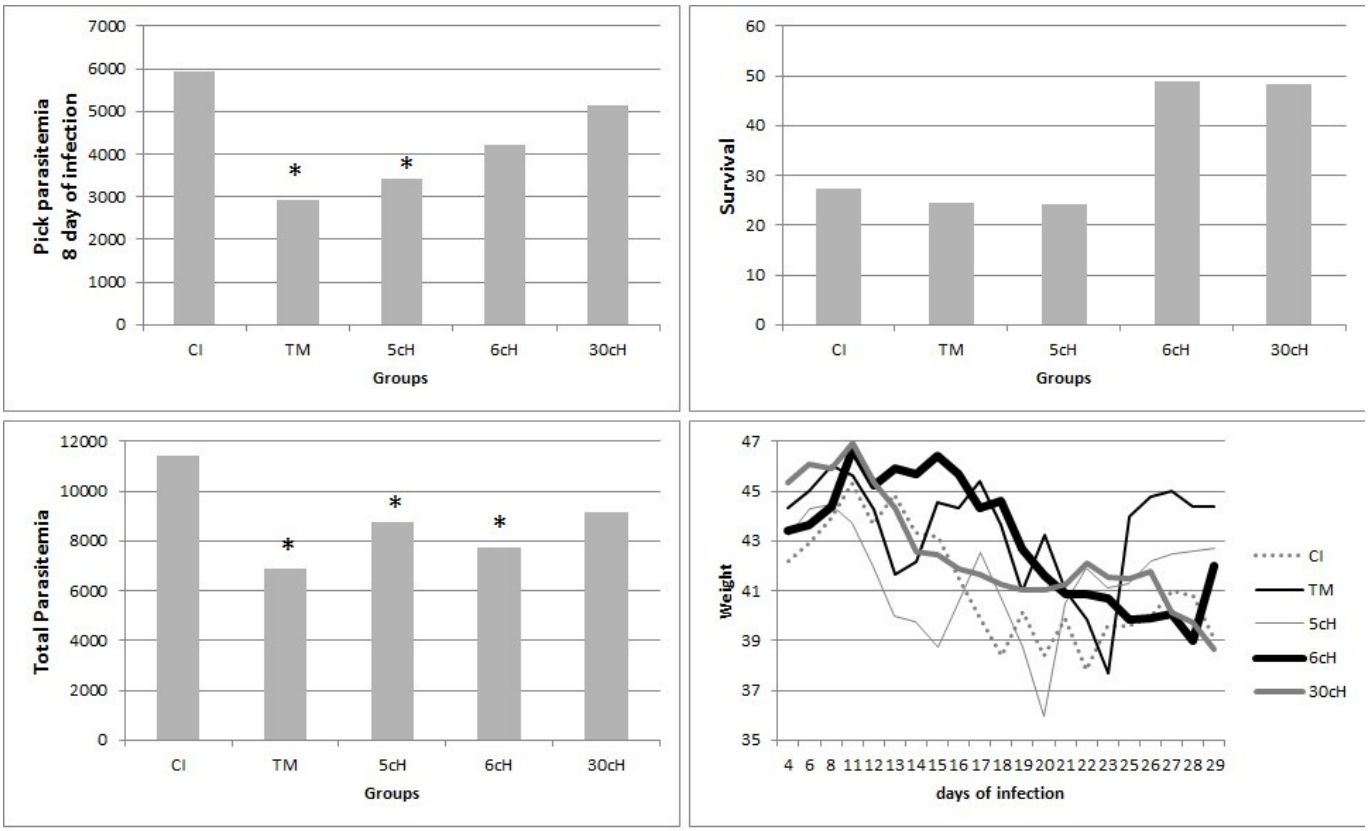
Figura1. Clinical and Parasitological assessment in mice infected with *T.cruzi* treated with highly diluted Atropa belladonna.



Keywords: Chagas Disease; homeopathy; *Atropa beladonna*; medicine dynamised.

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