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

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**Introduction:** The infection by *Trypanosoma cruzi* 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 highly diluted\(^6\) medicines, in which the direct relation between morbidity and parasitemia is not observed\(^2\). 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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Figura 1. Clinical and Parasitological assessment in mice infected with *T. cruzi* treated with highly diluted *Atropa belladonna*.

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

**References:**


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