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Effectiveness of albendazole against viability of *Entamoeba histolytica* in experimental animals

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Aim: Intestinal amoebiasis is still an important health problem in developing countries of the world. One of the most issues for future biomedical research is the development of antimicrobial resistant, in order to search for alternative new anti-amoebic drugs. A study was carried out to evaluate the efficacy of Albendazole on the viability of *Entamoeba histolytica* clinical isolate from human which used for experimental animals.

Method: All experimental animal models (30 albino mice and 30 rabbits), divided into 3 groups, each group with either 10 mice or 10 rabbits, were orally infected with *E. histolytica* (clinical isolate), then after 7 days they were given drugs (Metronidazole or Albendazole) daily according to body weight prepared in advance for 5 days duration and in addition to the controls without drugs. Stool specimens of each group were examined microscopically for viable trophozoites and the number of these trophozoites was counted with hemocytometer chamber, as compared to untreated and treated groups. Statistical methods used were student t-test.

Result: The results showed infection of *E. histolytica* was able to be initiated in rabbits only. Albendazole and Metronidazole were highly effective (100%) on treatment of infected groups of rabbits. Trophozoites of *E. histolytica* was highly sensitive to Albendazole (25% viability) or to Metronidazole (22.7% viability) at a dose of 400 mg/kg/day and 250 mg/kg/day, respectively which was significant in relation to the control 500% viability. However, the differences were significant at the level ($p < 0.01$).

Conclusion: The present study showed that the newly used Albendazole is very effective anti-amoebic drug as Metronidazole in rabbits.

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