Abstract of the DVM thesis No 12513, Factually of Veterinary Medicine, Urmia University, The Academic year 2022-23

Author: Behnam Rahimi

Title of thesis: *In vitro* study of effects of green tea (*Camellia sinensis*) and Jujube (*Ziziphus vulgaris*) extracts on *Trichomonas gallinae*

Abstract:

The use of Chemotherapy for the treatment of parasitic disease of man and animals can be problematic due to different adverse effects. As a result, there is an increasing interest in non-chemical alternatives, such as medicinal plant extracts as new therapeutic tools against these diseases. This study was designed to evaluate the antitrichomonal effects of green tea *(Camellia sinensis*) and Jujube *(Ziziphus vulgaris)* extracts against *Trichomonas gallinae*, *in vitro*, as well as comparing it to that of metronidazole. *T. gallinae* were collected from infected free-living pigeons. The *in vitro* assay was performed using multi-well plates containing test compounds in final concentrations of 5,10, 25, 50 and 100 µg/ml. The 24 h minimum inhibitory concentration (MIC) of green tea and Jujube was 25 and 50 µg/ml while that of metronidazole was 50 µg/ml. The results of the present study suggested green tea and Jujube extracts are potent natural antitrichomonal agents. In addition, its concluded that green tea and Jujube are as efficient as metronidazole in inhibiting the growth of *T. gallinae* trophozoites in culture.

Key words: Green Tea (*Camellia sinensis*), Jujube (*Ziziphus vulgaris*), *in vitro*, *Trichomonas gallinae*