

Comparison of anti-parasitic effects of garden thyme (*Thymus vulgaris*) extract and metronidazole on *Trichomonas gallinae*

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Background and Amis: In this study we investigated the effects of garden thyme extract (*Thymus vulgaris*) and metronidazole on flagellated protozoan *Trichomonas gallinae* to determine the Minimum Lethal Concentration (MLCs) and Minimum Inhibition Concentration (MICs).

Methods: *T. gallinae* parasites isolated from domestic pigeon were been cultured in vitro. The in vitro susceptibility test of *T. gallinae* was evaluated in multi-well plates at 37°C. Metronidazole from family Nitroimidiazol to treat the parasitic disease. Considering the numerous reports regarding the effects of antiparasitic activity of garden thyme (*T. Vulgaris*). Metronidazole and garden thyme extracts with different concentrations in culture medium tested against *T.gallinae*. Protozoa inoculums of 1 ml culture medium containing diamond media *Trichomonas* number was was selected.

Results: The results illustrated that extracts of garden thyme had good anti*Trichomonas* effect. Activity of the minimum concentration of the extract to destroy all the parasites in the analysis of 24, defind as 4 mg/ml.

Conclusions: The results showed same result of thyme plant extracts in comparison with dose to kill and metronidazole of *Trichomonas* to destroy the same and in cases of drug resistance to metronidazole view is that this plant extract can be used instead. A further study of this drug to replace with plant and its acceptance as antitrichomonal is required.

Keywords: *Trichomonas Gallinae*; Garden Thyme; Metronidazole; Treatment; Parasitic disease; *Columba livia*