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

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Background and Aims: 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 selected.

Results: The results illustrated that extracts of garden thyme had good antiTrichomonal effect. Activity of the minimum concentration of the extract to destroy all the parasites in the analysis of 24, defined 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