

Original Paper

In Vitro anti-Trichomonas activity of Freula assafoetida and garlic extracts

Bahadoor Sarkari (PhD)*¹, Hadisa Tadayon (MD)², Shahrbanoo Askarian (BSc)³
Elahm Farnia (BSc)⁴, Mehrangiz Askarian (MSc)⁵

¹Associate Professor, Department of Parasitology and Mycology, Faculty of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran. ²General Practitioner, Faculty of Medicine, Yasuj University of Medical Sciences, Yasuj, Iran. ³Microbiologist, Faculty of Medicine, Yasuj Herbal Medicine Research Center, Yasuj University of Medical Sciences, Yasuj, Iran. ⁴Department of Medical Parasitology and Mycology, School of Public Health and Institute of Public Health Research, Tehran University of Medical Sciences, Tehran, Iran. ⁵Midwife, Department of Midwifery, Faculty of Nursing and Midwifery, Yasuj University of Medical Sciences, Yasuj, Iran.

Abstract

Background and Objective: Trichomoniasis is a disease caused by *Trichomonas vaginalis* and is the most common sexually transmitted disease after viral sexually transmitted ones. Trichomoniasis is usually treated with oral metronidazole and both patient and her partner should be treated. Considering the probable teratogenic effect of metronidazole and parasite drug resistance, it is necessary to find an alternative medication for treatment of trichomoniasis. In this study in vitro effect of garlic and Freula assafoetida extracts on *Trichomonas vaginalis* were evaluated.

Materials and Methods: This In Vitro study was done in Yasuj Faculty of Medicine, Yasuj, Iran. *Trichomonas vaginalis* was cultured in TYI-S-33 medium. Effect of garlic and Freula assafoetida extracts in specified times and concentrations on *Trichomonas vaginalis* were assessed. Garlic extract was used in 0.1, 0.05 and 0.025 mg/ml while Freula assafoetida extract was used in 2, 1 and 0.5 mg/ml. The inhibitory effect of extract on *Trichomonas* was assessed by counting the alive parasites 1, 2 and 24 hours after exposure with extracts.

Results: Findings of this study showed that hydroalcoholic extract of Freula assafoetida at concentration of 0.5, 1 and 2 mg/ml killed 90% of the parasites in first hour of exposure and garlic extract at concentration of 0.1 mg/ml killed 95% of parasites after 2 hours. Moreover garlic extract killed 90% of parasites at concentration of 0.05, 0.025 and 0.0125 mg/ml after 24 hours of exposure even at low concentration.

Conclusion: This study indicated that garlic and freula assafoetida have significant effect on *Trichomonas vaginalis*, therefore detecting the effective substances of these potent anti-parasitic herbs is recommended.

Keywords: *Trichomonas vaginalis*, Garlic extract, Freula assafoetida extract

* Corresponding Author: Bahadoor Sarkari (PhD), E-mail: sarkarib@sums.ac.ir

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