

Biotech Health Sci. 2015 November; 2(4): e32635.

doi: 10.17795/bhs-32635

Published online 2015 November 23.

Research Article

Inhibitory Activity of *Artemisia spicigera* Essential Oil Against Fungal Species Isolated From Minced Meat

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Received 2015 August 24; Revised 2015 September 14; Accepted 2015 September 26

Abstract

Background: Meat is an important source of several nutrients. The capability top of fresh meat to rot, causing the group of studies food science, biological and chemical stability meat consideration.

Objectives: This study was conducted to examine the inhibitory effect of *Artemisia spicigera* essential oil against fungal species isolated from minced meat.

Materials and Methods: Two types of media dichloran 18% glycerol (DG18) agar and dichloran rosebengal chloramphenicol (DRBC) agar were selected for the mycological analysis of the minced meat samples. To evaluate the antifungal activity of essential oils, the microdilution broth method based on the CLSI (M27A) guideline was used.

Results: *Artemisia spicigera* essential oil has an inhibitory effect on the growth of fungi found in samples of minced meat. *Aspergillus*, *Penicillium* and *Cladosporium* were the most common genera on both medium types. Average Minimum Inhibitory Concentration₅₀ = 1.88 $\mu\text{L}/\text{mL}$ and MIC₉₀ = 2 $\mu\text{L}/\text{mL}$ were reported. The genus of *Mucor* with MIC = 1.0 $\mu\text{L}/\text{mL}$ was the most sensitive and *Aspergillus versicolor* was the most resistant species to the essential oil with MIC = 4 $\mu\text{L}/\text{mL}$.

Conclusions: The results of the present study show a favorable inhibitory effect of *Artemisia spicigera* essential oil on fungal growth, especially *Aspergillus* species. According to the results, antifungal components of *Artemisia spicigera* in different forms are used to prevent fungal pollution.

Keywords: Antifungal Agent, Food Contamination, Meat, *Artemisia*