

Pharmacogn J. 2023; 15(1):

A Multifaceted Journal in the field of Natural Products and Pharmacognosy

www.phcogj.com

Phytochemical Comparative Studies, Antioxidant and Antimicrobial of Artemisia and Star Anise

ABSTRACT:

The tradition of investigating plants and extensively scrutinizing their biologically or pharmacologically active compounds has markedly increased due to their fewer adverse effects compared to synthetic drugs. Through this study, we aim to establish a phytochemical screening and analyze and compare the antioxidant and antimicrobial properties of Artemisia and star anise. The antioxidant characteristics of plant extracts we assessed, the chemical bonds and components composition were analyzed in the sample and further experiments were done to assess the antimicrobial activities. On the results, we found that all the extracts of both the species were very impactful in the inhibition of *E. coli*, *C. Albicans*, and *S. aureus*. However, *S. aureus* was more sensitive to star anise and *E. coli* and *C. albicans* were inhibited better through the alcoholic extracts of *Artemisia vulgaris*. Star anise has a higher and more effective antioxidant activity against DPPH with a calculated value of 78.3 % at a concentration of 750 ppm, at a concentration of 500 ppm it was 65.3% and in the least concentration of 250 ppm, it was 23.3% compared to *Artemisia vulgaris*. Additionally, both extracts possessed marked antifungal action.