Chemical analysis and antimicrobial activity of Cumin seeds extracted oil against some bacterial and fungal isolates

Abstract

Cuminum cyminum seeds oil was extracted by using Soxhelt extraction, the chemical analysis is carried out by means of GCderivatives (59.77%) MS .1H-indene and Cuminic aldehyde(13.77%) are respectively the major compound in the extracted oil. The Cumin oil exhibits a strong antibacterial activity against four clinical bacterial isolates (Escherichia coli, Staphylococcus aureus, Klebsiella sp. and Pseudomonas aeruginosa) and strong to moderate antifungal activity against three fungal isolates (Aspergillus flavus ,Candida albicans and Cryptococcus sp.). The minimum inhibitory concentration (MIC) of the Cumin extracted oil was applied against the clinical isolates of bacteria and E.coli was the most sensitive isolate, with the lowest MIC value.