

Flavonoids And Alkaloids Extracted From marodphali (Helicteresisora) And Their Using Role As Anti-Bacterial, Anti-Fungal And Their Effectiveness As Antioxidants

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Abstract

Natural products are known as raw chemicals that are available in many medicinal plants and characterized as alternatives to medicines and have medicinal and biological applications as anti-bacterial and anti-fungal, antioxidant, immune system boosting, anti-inflammatory and UV-protective effects. Alkaloid and flavonoid fractions were extracted from Marodphali (*Helicteresisora*) plant and tested for their antioxidant and antimicrobial activity. Antioxidant activity for fractions were determined with β -carotene assay and the flavonoid compound showed the highest antioxidant activity compared to the standard BHT. The results of antimicrobial activity of extracts on microbial species (*E. coli*, *P. aeruginosa*, *S. aurea*, *K. pneumoniae* and *Aspergillus flavus*) exhibited the flavonoid have a good activity compared to alkaloid extract.

Keywords: Marodphali, antioxidant, antimicrobial study.

Introduction

Since medicinal plants include many chemicals such as flavonoids, phenolic acids, tannins, and coumarins, they have varied biological impacts on the human health system (1,2,3) in different parts of the plant. Atherosclerosis, arthritis, ischemia, gastritis, cancer, and AIDS are just a few of the frequent disorders that are treated using various plant parts (4).

Because synthetic antioxidants have several adverse effects, the necessity to take antioxidant supplements obtained from natural sources, particularly those generated from plants, such as phenols, has recently gained a lot of attention (5). Studies have proven that consuming plant foods that contain antioxidants are beneficial to health because they control in many degenerative processes. It can reduce the incidence of cancer and cardiovascular disease (6)

The plant Marodphali (*Helicteresisora*) shrub, which reaches a height of 5 cm, is distinguished by its gray bark covered with star hairs. Its flowers are red and the fruit is greenish brown, which is widely cultivated throughout India and Southeast Asia and the southern part of China is in the dry regions (7).