

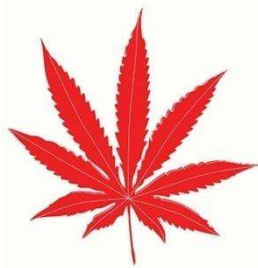


12th Pak Pharma Healthcare Expo

4th Pakistan Food -Nutrition International Summit 2023

Wednesday - February 15-16, 2023

Expo Centre Lahore.



Conference Abstract

PHYTOCHEMICAL AND ANTI-DANDRUFF PROPERTIES OF ETHANOLIC EXTRACT OF CITRULLUS LANATUS SEEDS

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History:

Received: January 5, 2023

Reviewed: January 13, 2023

Accepted: January 17, 2023

Published: February 20, 2023

Collection year: 2023

Status: Published

Identifiers and Pagination:

Year: 2023

Volume: 15

First Page: 1

Last Page: 2

Publisher ID: 19204159.15

doi:<http://dx.doi.org/10.21065/19204159.15>

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Citation:

Zainab Ramzan. Phytochemical and Anti-dandruff Properties of Ethanol Extract of Citrullus Lanatus Seeds. J App Pharm. Vol. 15. 2023. p 1-2.

Funding:

The authors received no direct funding for this research.

Abstract

A medicinal plant known as *Citrullus lanatus* Thunb (Family: Cucurbitaceae) has been used for a wide range of ailments throughout history. When the plant's phytochemistry was examined, it contained carbohydrates, alkaloids, steroids, saponins, glycosides, flavonoids, tannins, and phenolic compounds. Additionally, fat, proteins, vitamins, and amino acids were found in the plant. Numerous scientists and researchers have conducted extensive research on the plant's pharmacological properties and therapeutic applications, including those for antibacterial, antifungal, antimicrobial, antiulcer, antioxidant, anti-inflammatory, gastroprotective, analgesic, laxative, hepatoprotective, and atherosclerosis. The goal of the current study is to create a watermelon seed extract and to identify its pharmacological and phytochemical properties. The samples were evaluated for proximate analysis (moisture, crude protein, ash, total fat, crude fiber, and total carbohydrate), total phenolic, and antioxidant activity. The ground seeds of *Citrullus lanatus* were extracted in ethanol by maceration method for 7 days. Phytochemical analysis of primary metabolites (proteins, lipids and carbohydrate) and secondary metabolites (alkaloids, tannins, flavonoids and glycosides) was performed according to standard protocols. FTIR was also carried out to identify functional groups. The anti-dandruff activity was performed by disc diffusion method and ketoconazole was used as a standard drug. The results of the proximate analysis were found to be within the suggested ranges (USP, 2015). The phytochemical analysis had revealed that the extract contained a number of different phytochemicals i.e. protein, carbohydrates, lipids, polyphenols, flavonoids and alkaloids. The presence of different functional groups, such as -OH, -CH, and =CH, was

Competing Interests:

The authors declare no competing interests

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detected in the FTIR spectrum. At various dilutions, *Citrallus lanatus* ethanolic extract showed significant antifungal activity, with a zone of inhibition of 0.2 mm at 0.1% dilution, increasing to 0.25 mm at 0.3% dilution, and 0.3 mm at 0.5% dilution. The results are comparable to ketoconazole which is used as standard drug and its zone of inhibition was found to be 0.6mm. According to the findings of the current study, *Citrallus lanatus* ethanolic seed extracts revealed the presence of significant phytochemicals. Studies on the effects of *Citrallus lanatus* ethanolic extracts against *Malassezia furfur* showed considerable anti-dandruff activity.

Key words: Citrallus lanatus, Anti-dandruff, Ketoconazole, Minimal inhibitory concentration.

Declaration

The abstract is reviewed and accepted by the Conference Organization Committee of 11th Pak Pharma Healthcare Expo. The presenter was permitted to share his research after final approval of the committee. The scientific research information was presented at 4th Pakistan Food -Nutrition International Summit 2023 held on December 15-16, 2023 at Pak-China Friendship Centre, Expo Centre Lahore. Hence, the journal is publishing this abstract on behalf of the aforesaid Conference Organization Committee.



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