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Preliminary Phytochemical Screening of *Ocimum Sanctum*

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Abstract

In the present study, an attempt was made to investigate Phytochemical evaluation of different parts of *Ocimum sanctum. The* crude drug powder extracts of the leaves of the above plants were taken for the study. The Phytochemical Screening was done for the selected plants.

Keywords

Phytochemical screening, *Ocimum sanctum*

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INTRODUCTION

Herbal medicine also known as botanical medicine or phytomedicine-refers to using plants seeds, flowers, roots for medicinal purpose. Herbalism has a long tradition of use of outside of conventional medicine. It is becoming more mainstream as improvements in analysis and quality control along with advances in clinical research show the value of herbal medicine in the treating and preventing disease. The medicinal action of plants is unique to a particular plant species, consistent with the concept that the combination of secondary metabolites in a particular plant is taxonomically distinct for three medicinal plants and their description and uses respectively.

EXPERIMENTAL SECTION

Plant Materials

The different parts of plants *Ocimum sanctum were* authentified by Mrs N Deepa Ramani Associate Professor Nimra College of Pharmacy They were collected from different areas of NTR district of Andhra Pradesh.

A twig of *Ocimum sanctum*

Qualitative analysis Experimental Procedure

TEST FOR CARBOHYDRATES

TEST	PROCEDURE
MOLISCH'S TEST	200 mg of extracts were dissolved separately in 5ml of water and filtered. 2 ml of the above sample solution is placed in a test tube. Two drops of the Molisch reagent are added. The solution is then. Poured slowly into a tube containing 2 ml of concentrated sulphuric acid and observed.
FEHLING'S TEST	1ml of Fehling's solution A and 1ml of Fehling's solution B were added to 100mg of extracts separately. They were heated on a boiling water bath for 5 min and observed.
BENEDICT'S TEST	To the 150 mg of each extract, 2ml of Barfoed's reagent was added. Then the mixture was heated on a boiling water bath for 5 min, cooled and observed.

TEST FOR ALKALOIDS

To 250 mg of each extract, 10 ml of dilute HCl was added, mixed, and filtered. To the filtrate the following reagents were added and tested.

TEST	PROCEDURE
WAGNER'S TEST	2 ml of Wagner's reagent was added to the above filtrate solution and observed.
HAGER'S TEST	To the 2 ml of above filtrate solution, 2 ml of picric acid was added and observed.

TEST FOR GLYCOSIDES

The extract was tested for the presence of

- Saponin glycosides
- Cardiac glycosides

TEST FOR SAPONIN GLYCOSIDES

TEST	PROCEDURE
FOAM TEST	To 200 mg of each extract, 15 ml of distilled water was added, shake it well and observed.

TEST FOR CARDIAC GLYCOSIDES

TEST	PROCEDURE
LEGAL'S TEST	To 50 mg of each extract, 1 ml of pyridine, 1 ml of Sodium nitro prusside solution were added and observed.
KELLER-KILIANI TEST	To 50 mg of each extract, 2 ml of glacial acetic acid, 1 ml $FeCl_3$ solution was added, heated, and then cooled. This was transferred to a test tube containing 2ml conc. $H_2SO_4$and observed.

TEST FOR FLAVANOIDS

TEST	PROCEDURE
LEAD ACETATE TEST	To the 100 mg of each extract, lead acetate (5 ml) was added and observed.

TEST FOR TANNINS

To 100 mg of each extract, the following reagents were added and observed.

a) 5 ml of 5% w/v $FeCl_3$ solution.
b) 5 ml acetic acid solution.
c) 5 ml dil. $KMnO_4$ solution.

TEST FOR STEROIDS	
TEST	**PROCEDURE**
SALKOWSKI TEST	To 100 mg of each extract, 2 ml of $CHCl_3$, 2 ml of conc. H_2SO_4were added, mixed thoroughly and both the layers were observed for color.

Table 1: Phytochemical Evaluation of *Ocimum sanctum*

S.NO.	CHEMICAL TESTS	RESULT
	TEST FOR CARBOHYDRATES	
1	A. Molisch's test	Positive
	B. Fehling's test	Positive
	C. Benedict's test	Positive
	D. Barfoed's test	Positive
	TEST FOR ALKALOIDS	
2	A. Hager's test	Positive
	B. Wagner's test	Positive
3	**TEST FOR FLAVANOIDS**	
	Lead acetate test	Positive
4	**TEST FOR SAPONINS**	
	A. Foam test	Negative
	TEST FOR STEROIDS	
5	A. Lieberman burchard test	Positive
	B. Salkowski test	Positive
	TEST FOR CARDIAC GLYCOSIDES	
6	A. Legal test	Positive
	B. Keller-killiani test	Positive

RESULTS AND DISCUSSION

The study of the chemical constituents and the active principles of the medicinal plants have acquired a lot of importance all over. The present study includes the phytochemical screening of different parts of plants of *Ocimum sanctum The* investigation showed that *Ocimum sanctum* contains carbohydrates, alkaloids, flavanoids, cardiac glycosides steroids and tannins as given in Tables.

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