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Phytochemical Observation on Leaf of Justicia Tranquebariesis. L.F.

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***ABSTRACT**: Photochemical studies of leaf of the herbs Justicia tranquebariensis. (Acanthaceae) carried out in the presence of phytosterols, flavonoids, Glycosides and absence of triterpenoids, alkaloids, saponins tannins have been reported in this herb for the first time.*

INTRODUCTION:

Justicia tranquebariensis are Medicinal herbs (1). They are used as a juice of leaves considered cooling and aperient given to cildrenn(2) bruised leaves are applied to contusions(3), diaphoretic, diuretic, rheumatism (4).

The lead extracts of justicia tranquebariensis are the main active biter principle and varies in quantity in different reports. The present investigation was undertaken to study the phytochemicals.

MATERIALS AND METHODS:

Leaf sample of justicia tranquebariensis were collected during their pre-flowering period June-July from the Kolli hills, Trichirapalli regions Tamil Nadu and identified b comparing with the herbarium species, The plant material were collected and tried in shade and were subjected soxhlet extraction using various organic solvents for continuous hot extraction. The extracts obtained were objected to solvent evaporation n vacuum distillation to solvent evaporation by vacuum distillation and dried in desiccators.

The tried material were tested for pytoconstituents like carbohydrate, phytosterols, tannins, saponins, Alkalodis, Glycosides Flavonoids by standard methods (5), (6).

Extraction isolation and testing of Phyto constituents:

50 ml of filtered acidic solution of plant powders formed the test solution.

PHYTOSTEROLS:-

Testing solution is treated with minimum amount of $CHCI_3$,3 drops of acetic unhydride and 2droups of conce H_2SO_4 were added. The appearance of purple colour and its changes to blue (or) green will indicate the presence of phytosterols.

ALKALODIS:

Test solution was treated with 2N HCI. The aqueous layer formed was decanted and to which 1-2 drops of mayer's (or) Dragondroff's reagent was added. The appearance of white (or) orange precipitate will form denote the presence of alkaloids.

FLAVONOIDS:

The solution was treated with 1 gm of magnesium powder and 1 ml of Conc.Hcl and heated. The development of orange colour will denote the presence of flavonoids.

TANNINS:

Te test solution of extract were treated with few drops of lead acetate solution. The formation of whit precipitate will denote the presence of tannins.

SAPONIN'S:

The test solution was shaken wit water. The occurrence of foamy later will denote the presence of saponins

TRITERPENOIDS:

The test solution was shaken well with few drops of antimony trichloride solution. Appearance of blue precipitate denotes the presence of triterpenoids.

GLYCOSIDES:

The test solution were Hydrolysate. The Hydrolysate were treated with chloroform and the chloroform layer was separated. To this equal quantity of dilute ammonia solution was added. Pink colour formation in ammonical layer will denote the presence of glycoside.

RESULTS& DISCUSSION:

The results of phytochemical tests carried out for justicia tranquebariensis are presented in Table -1. In the present investigation, the Phytosterols flavonoids are present in all the extracts. Glycosides are present in Benzene, Acetone and Aqueous extract. Saponins. Tannins triterpenoids are absent in all four extracts.

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Table -1

Phytochemical screening of various Extracts of Justicia tranquebariensis:

Name of Extract	Glycoside	Alkaloid	tannin	Saponins	Phytosterols	Flavonoid	Triterpenoids
Pet Ether	-	-	-	-	+	+	-
Benzene	+	-	-	-	+	+	-
Acetone	+	-	-	-	+	+	-
Alcohol	+	-	-	-	+	+	-

+ denotes presence

- denotes absence