



STANDARDIZATION OF SIDDHA DRUG OMA KUDINEER USING PHYTO CHEMICAL ANALYSIS

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ABSTRACT

Siddha system is the ancient system of medicine practiced predominantly in south India. Scientific documentation of siddha medicines are increasing now a days, that proves the safety of siddha medicines, which in turn increases the usage of these medicines. so its mandatory to standardize it. Oma kudineer is a poly herbal used in the treatment of Neer kana mantham (common cold) in pediatric age groups. This study is planned to evaluate the phyto chemicals present in this drug.

KEYWORDS: Siddha medicine, phytochemical, oma kudineer, standardization.

INTRODUCTION

Siddha system of treatment is a holistic management of diseases. Development of these medicines will not only help in preserving it, but also play an important role in increasing its usage worldwide. As per the estimates of world health organization, more than 80% of the global population uses plants and their products. Most of the medicines are mixtures of many herbs and acts as a synergistic energy.

Prevalence of common cold in pediatric age group is common and this drug Oma kundineer formulation has been taken from siddha pediatric book bala vagadam and this drug contains four herbs mainly pepper, omam, long pepper and garlic in it, which are easily available and also it is cheaper.

This formulation was evaluated for its phyto chemical properties. Fresh formulation was prepared in the laboratory and it was tested for the presence of phytochemicals.

PHYTOCHEMICAL ANALYSIS

Sample Preparation

Oma Kudineer (OK) was extracted with hydro alcoholic solvent (Methanol: water) 6:4 and the extract was subjected to the following analysis.

Test for alkaloids

Mayer's Test: To the extract, 2ml of mayer's reagent was added, a dull white precipitate revealed the presence of alkaloids.

1) Test for coumarins

To 1 ml of extract, 1 ml of 10% sodium hydroxide was added. The presence of coumarins is indicated by the formation of yellow color.

2) Test for saponins

To 1 ml of the extract, 5 ml of water was added and the tube was shaken vigorously. Copious lather formation indicates the presence of Saponins.

3) Test for tannins

To the extract, ferric chloride was added, formation of a dark blue or greenish black color showed the presence of tannins.

4) Test for glycosides- Borntrager's Test

Test drug is hydrolysed with concentrated hydrochloric acid for 2 hours on a water bath, filtered and the hydrolysate is subjected to the following tests. To 2 ml of filtered hydrolysate, 3 ml of chloroform is added and shaken, chloroform layer is separated and 10% ammonia solution is added to it. Pink colour indicates presence of glycosides.

5) Test for flavonoids

To 0.1ml of the test sample about 5 ml of dilute ammonia solution were been added followed by addition of few drops of conc. Sulfuric acid. Appearance of yellow color indicates the presence of Flavonoids.

6) Test for phenols

Lead acetate test: The extract was taken; 3 ml of 10% lead acetate solution was added. A bulky white

precipitate indicated the presence of phenolic compounds.

7) Test for cardial glycosides

Keller-Killani Test: Plant extract treated with 2 ml glacial acetic acid containing a drop of FeCl₃. A brown colour ring indicates the presence of positive test.

8) Test for steroids

To the test solution 2ml of chloroform was added with few drops of conc. Sulphuric acid (3ml), and shaken well. The upper layer in the test tube was turns into red and sulphuric acid layer showed yellow with green fluorescence. It showed the presence of steroids.

9) Test for Quinones

The extracts were treated separately with Alc. KOH solution. Appearance of colors ranging from red to blue indicates the presence of Quinones.

10) Test for Cyanins

A. Aanthocyanin

To 2 ml of the leaf extract, 1 ml of 2N sodium hydroxide was added and heated for 5 min at 100°C. Formation of bluish green colour indicates the presence of anthocyanin.

B. Betacyanin

To 2 ml of the leaf extract, 1 ml of 2N sodium hydroxide was added and heated for 5 min at 100°C. Formation of yellow colour indicates the presence of betacyanin.

11) Test for Carbohydrates - Benedict's test

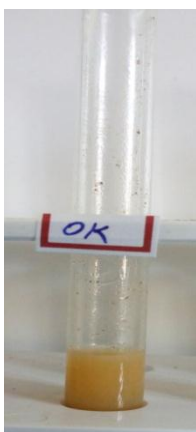
To 0.5 ml of test drug about 0.5 ml of Benedic's reagent is added. The mixture is heated on a boiling water bath for 2 minutes. A characteristic coloured precipitate indicates the presence of sugar.

12) Test for terpenoids

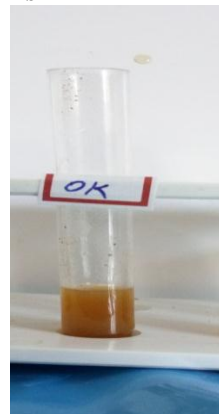
Salkowski test: 5ml of extract was mixed in 2ml of chloroform, and concentrated sulphuric acid was carefully added to form a layer. A reddish brown colouration of the interface indicates the presence of terpenoids.

RESULTS

Test for Alkaloids



Test for Coumarins



Test for Saponins



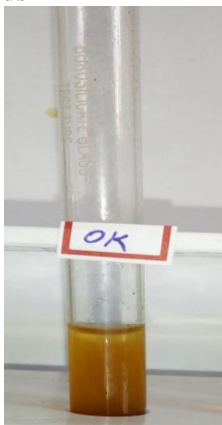
Test for Tanins



Test for Glycosides



Test for Flavonoids



Test for Terpenoids



Test for Phenols



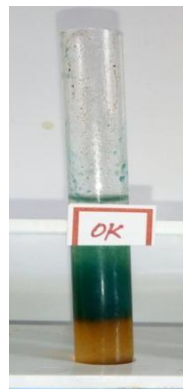
Test for Quinones



Test for Cardiac Glycosides



PROTEINS



Test for steroids



Test for Anthocyanins



CARBOHYDRATES**RESULT ANALYSIS**

PHYTOCOMPONENTS	OK
ALKALOIDS	+
FLAVONOIDS	+
GLYCOSIDES	+
STEROIDS	-
CARBOHYDRATES	+
TRITEREPNOIDS	+
COUMARINS	-
PHENOLS	+
CARDIAC GLYCOSIDES	-
TANNINS	+
SAPONINS	-
PROTEINS	+
ANTHOCYANIN	-
BETACYANIN	-
QUINONES	-

+ Indicates positive

- Indicates Negative

RESULTS

Phyto chemical analysis revealed the presence of alkaloids, flavonoids, glycosides, carbohydrates, triterpenoids, phenols, tannins and proteins.

REFERENCE

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