
INTERNATIONAL JOURNAL OF CURRENT RESEARCH IN BIOLOGY AND MEDICINE

ISSN: 2455-944X

www.darshanpublishers.com

DOI:10.22192/ijcrbm

Volume 3, Issue 5 - 2018

Original Research Article

DOI: <http://dx.doi.org/10.22192/ijcrbm.2018.03.05.004>

Retrospective study of leaves of *Kedrostis foetidissima* in siddha medicine

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Abstract

Folk or traditional medicine originated from primitive mans reaction or attitudes to natural events. *Kedrostis foetidissima* is a herbaceous perennial plant, have a very unpleasant smell but cattle feed on it ravenously. The leaf extracts were used as antifouling agents for the treatment of bloat in cattle. The leaf juice was used for the treatment of cold in children and used as immune modulator. In some rural areas, leaves of K.F used as a cold in children by external therapy of fumigation therapy (pugai pidithal). The leaves of *Kedrostis foetidissima* have tenacious antibacterial .anti fungal properties which proven through research. The present study aims to evaluate the pharmacognsy of *Kedrostis foetidissima* (Jacq) Cogn, which has got wonderful medicinal values on cough ,cold, asthma, boils, measles, diarrhea, eczema.

Keywords: Folk medicine (Siddha medicine), *Kedrostis foetidissima*, appakovai illai, monkey pepper.

Introduction

Traditional medicine also known as indigenous or folk medicine comprises medical aspect of traditional knowledge that developed our generations within various societies before the era of modern medicine. Siddha medicine which is one of the traditional medicine practiced in Tamilnadu. Whether educated or not, rich or poor, some people still use folk medicine for specific diseases and visits to shrines and folk methods of dealing with cold, fracture or dislocation can still be observed. curcubitaceae is essentially a tropical family containing 110 genera and 640 species. In india the family is represented by 37 genera and about 97 species, several of which are cultivated

throughout India. *Kedrostis foetidissima* is one of the plant in the curcubitaceae family.

General information

Kedrostis foetidissima is a herbaceous perennial plant producing annual stems upto 3 metres long from a tuberous , perennial roots stock. The stems scramble over the ground and climb into the surrounding vegetation, attaching themselves by means of tendrils. All parts of the plants have an offensive odour when crushed. The leaves are a favoured food of some native people, where they are commonly harvested from the wild for local use.[1]

Habitat

Rain forest and river margins, deciduous and semi evergreen woodland and dry bushland. termite mounds, at elevation from sea level to 2000 metres.[1]

Distribution

The plant is widely distributed in Africa & Asian countries. Most species of the genus *Kedrostis* are distributed chiefly in Africa. In India is found in Gujarat, Malabar, deccan, Carnatic regions of India. In Tamilnadu, it is distributed in Cuddalore, Salem, Dharmapuri and Coimbatore district.[2]

Taxonomy

Classification	: Bentham & Hooker
Class	: Dicotyledons
Subclass	: Polypetalae
Series	: calyciflorae
Order	: passiflorales
Family	: cucurbitaceae
Genus	: <i>Kedrostis</i>
Species	: <i>foetidissima</i>
Tamil name	: Appakovai
Telugu name	: kukumadumda
Kannada name	: kukumadum darnara [3]
Common name	: monkey pepper [9]

Conservation

Kedrostis foetidissima is a least concerned plant and is a threatened species it required severe attention for conservation.[3]



Kedrostis foetidissima

Materials and Methods

Action

Demulcent [10]

Medicinal uses

1) *Kedrostis foetidissima* for cold:

Leaf juice is used for treating common cold in children. the leaf juice is extracted by pounding the leaves and 5 to 6 drops of the juice is given to children to treat cold.

2) Eczema:

The paste of the leaves is good for eczema.

To make the paste just pound the leaves in a mortar and pestle to a paste and apply as a poultice.

3) Diarrhea:

Leaf juice is a good remedy for diarrhea, usually a 1 tsp of the fresh leaf juice is given both morning and evening for diarrhea.

4) measles

In Africa, the leaf decoction of this plant made by boiling the leaves in water is used as a home remedy for treating measles.

5) Boils

We use these leaves to cure boils (abscess) that form during the hot season. during hot summer months, our sweat glands are very active making it ideal for the bacteria to grow. the leaves are very cooling and they are crushed together with small onions (shallots) and then applied over the boils. This paste gives good relief from the boils [4].

6) some rural areas, leaves of K.F and samburani used as a cold in children by external therapy of fumigation therapy (pugai pidithal).[11]

Concentration of trace metals in *Kedrostis foetidissima*:

cd-BDL
Cr -0.05
Cu-0.07
Fe-0.8
Ni- BDL
Pb- BDL
Zn-0.4
BDL-below detectable limit.[5]

Results and Discussion

Phytochemical screening of the methanolic leaf extract of *Kedrostis foetidissima*

Phytochemical methanolic leaf extract of *Kedrostis foetidissima*

Alkaloids	++
Flavonoids	++
Phenols	++
Tannins	++
Glycosides	++
Triterpenoids	++
Steroids	+
Saponins	++ [6]

Pharmacological action:

Antianemic activity of *Kedrostis foetidissima* on phenylhydrazine induced anemic rats

In this study, the RBC and Hb contents were increased due to recovery from free radical damage by the antioxidant character of KF extracts. Alkaloids and flavonoids protect cells as powerful antioxidants which prevent or repair damage done to the cells by free radicals or highly reactive oxygen species. The difference in antianemic potentials of the plant extracts might be due to the different phytochemicals present especially the polyphenols (flavonoids).[7]

Anti bacterial activity of leaf extract of *Kedrostis foetidissima*:

Antibacterial activity of chloroform extract of K.F was studied using agar disc diffusion method. The assessment of antibacterial activity was based on the measurement of zone of inhibition observed around the discs.

Microorganisms chloroform extract leaf in mm

<i>Staphylococcus aureus</i>	8.2
<i>Pseudomonas aeruginosa</i>	12.6
<i>Escherichia coli</i>	6.4
<i>Serratia marcescens</i>	7.2
<i>Klebsiella pneumoniae</i>	7.4

Since the plants used in this study have proved to possess antimicrobial properties and all locally available, they may become alternative sources of antimicrobial drugs that will complement existing antibiotics and or provide novel or lead compounds that may be employed in controlling some infection.[8]

Antifungal activity

The antifungal activity of test samples was analyzed against certain microorganisms on mullen hinton agar and potato dextrose agar. In fungi which was effective against *Trichophyton rubrum* whereas smaller effect was observed in *Epidermophyton floccosum*.[5]

Conclusion

Traditional medicine, Siddha may include formalized aspect of folk medicine, that is to say longstanding remedies passed on and practiced by lay people. Folk medicine consists of the healing practices and ideas of body physiology and health preservation. In this retrospective study leaves of *Kedrostis foetidissima* have antibacterial, anti fungal, anti anemic activity has proved scientifically. It show an attribute of demulcent action. Along with background information the present study is aimed to identify the variations used as tool for systematic study of K.F this analysis were used in various applications.

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	Subject: Siddha Medicine
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How to cite this article:

B.Kunthavi, M.Malarvizhi, A. S. Poongodi Kandhimathi. (2018). Retrospective study of leaves of *Kedrostis foetidissima* in siddha medicine. Int. J. Curr. Res. Biol. Med. 3(5): 18-21.

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