

ANALYTICAL STUDY OF RASNADI GUGGULU

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ABSTRACT

Karnasrava is a disease of *Karna* mentioned by *Acharya Sushruta* in the chapter named *Karnaroga Vigyaniya Adhyaya* under twenty eight *Karnaroga*. *Guggulu* has been an important traditional medicine in ancient *Ayurvedic* system. *Guggulu* is a resin or gum extracted from the plant *Commiphora wightii*(Arn.) Bhand.(Syn. *Commiphora mukul* Hook. ex. Stocks) or *Guggulu* tree. *Rasnadi Guggulu* is the drug mentioned in *Karna Roga* in *Yogratnakara*. *Rasnadi Guggulu* was prepared by referring the method described in text *Yogratnakara*. So purpose of the present study is to analyze *Rasnadi Guggulu* in *Karnasrava Roga*. This drug was further studied physio-chemically, organoleptically and chromatographically for developing standards.

KEYWORDS: *Rasnadi, Guggulu, Karnasrava Kaphavatashamaka, vati* etc.**INTRDUCTION**

Karnasrava is a disease mentioned by *Ahcarya Shusruta* in the chapter named *Karnaroga Vigyaniya Adhyaya* and mentioned *Karnasrava* as a disease entity under twenty eight *Karnarogas*.^[1] Due to vitiation of different *Doshas*, *Ahcarya Charaka* included *Karnasrava* as a symptom under the four types of *Karnarogas*.^[2] *Ahcarya Vagbhatta* has not described *Karnasrava* separately but described five type of *Karnasrava* under *Karnashoola* according to vitiated *Dosha*.^[3] The condition CSOM (Chronic Suppurative otitis media) is characterized by perforation, discharge which can be mucopurulent or purulent, copious and intermittent in nature, with or without smell, whitish or yellowish in colour, or associated with conductive deafness of mild to moderate intensity.^[4] *Guggulu* has been a very important component in ancient *Ayurvedic* medicinal system, and mainly indicated in *Vata* disorders.^[5] The other contents have *Vata - Kaphashamaka* properties. So this present study is aimed to see the effect of the medicine in the disease and to provide quality standardization of drug through recommended analytical test.

Aims and objective

To analyze the physiochemical and pharmacognostical character of *Rasnadi Guggulu*.

Collection of raw drug

The raw drugs were collected from *Hansa* pharmacy Sidkul, Haridwar, Uttarakhanda.

Identification and Authentification

The raw drugs were identified and authenticated by *Dravya Guna* Department of Gurukul campus Haridwar, Uttarakhanda Ayurveda University.

Methods of preparation of *Rasnadi Guggulu*

The herbal ingredients were taken in their raw form and then washed with clean water to remove dirt and mud, drugs then dried in sunlight for 7 days. one part each of *Rasna, Guduchi, Erandamoola, Devdaru* and *Shunthi* and 5 parts of *Shudha Guggulu* is added and *Vati* of 250mg is prepared by adding adequate quantity of *Ghrta*. After that it was stored in air tight container. The whole process of *Vati* preparation was done at the *Hansa* pharmacy Sidkul under sterile environment.

Ingredients of Rasnadi Guggulu^[6]

s.no.	Dravya	Latin Name	Part used	Ratio	Form
1	Rasna	<i>Pluchea lanceolata</i>	Patra	1 part	Choorna
2	Guduchi	<i>Tinospora cordifolia</i>	Kaand	1 part	Choorna
3	Erandamoola	<i>Ricinus communis</i>	Moola	1 part	Choorna
4	Devdaru	<i>Cedrus deodara</i>	Kaand (stem)	1 part	Choorna
5	Shunthi	<i>Zingiber officinale</i>	Kand(Rhizome)	1 part	Choorna
6	Guggulu	<i>Commiphora mukul</i>	Niryas	5part	Niryas

Pharmacodynamics of Rasnadi Guggulu^[7]

s.no.	Dravya	Rasa	Guna	Veerya	Vipaka	Dosh Shamakta
1	Rasna	Tikta	Guru	Ushna	Katu	Vata Shamak
2	Guduchi	Tikta, Kashaya	Snigdha	Ushna	Madhur	Tridosh Shamak
3	Erandamoola	Madhur, Kashaya	Snigdha, Tikshna, Sukshma	Ushna	Madhur	Kapha-atashamak
4	Devdaru	Tikta,	Laghu, Snigdha	Ushna	Katu	Kapha-Vatashamak
5	Shunthi	Katu	Laghu, Snigdha	Ushna	Madhur	Kapha-Vatashamak
6	Guggulu	Tikta, Katu	Laghu, Ruksh, Tikshna, Vishad, Sukshma	Ushna	Katu	Tridosh Shamak

Organoleptic properties of Rasnadi Guggulu.

Organoleptic properties	Rasnadi Guggulu
Roopa (Colour)	Dark brown
Rasa (Taste)	Bitter
Gandha (Smell)	Significant Balsamic

Physio- chemical analysis of Rasnadi Guggulu.

Parameters	Rasnadi Guggulu
Loss on drying (% W/W)	3.65
Total ash (% W/W)	7.84
Acid insoluble ash (% W/W)	1.22
Water soluble extractive (% W/W)	35.05
Alcohol soluble extractive % W/W	14.61
pH 10% w/v solution	5.30

Microbiological Limit test.

micro organism	Rasnadi Guggulu
Total bacterial count (cfu/g)	36000
Yeast and Mould count (cfu/g)	<100
E.coli	Absent
S. aureus	Absent
P. aeruginosa	Absent
Salmonella sp.	Absent

Heavy metals in Rasnadi Guggulu.

Heavy metals	Rasnadi Guggulu
Lead (Pb) ppm	8.22
Arsenic (As) ppm	0.75
Cadmium (Cd) ppm	0.16
Mercury (Hg) ppm	0.82

Thin layer chromatography of Rasnadi Guggulu

In thin layer chromatography, it has revealed RF values 0.9176, 0.7530, 0.6705 which can be concluded to be responsible for its pharmacological and clinical actions.

**DISCUSSION**

Rasnadi Guggulu is one such formulation explained in *Yogratnaker*. It is said to be used in *Vata Roga*, *Karna Roga*, *Shiroroga*, *Nadivrana* and *Bhagandar*. *Karnasrava* is one among 28 *Karnaroga* explained by *Acharya Sushruta* which is mainly *Vata* dominant *Roga*. All the contents of *Rasnadi Guggulu* have *Vata-Kaphahar* properties. All the pharmaceutical parameters analyzed showed value permissible for *Rasnadi Guggulu* in the form of *Vati*. TLC is the most common form of chromatographic method used by *Ayurvedic* research workers to determine the purity of sample and to detect the no. of compounds present in the product.

CONCLUSION

The contents of *Rasnadi Guggulu* are predominantly *Vata-Kaphashamaka*, works on vitiated *Vata* and *Kapha Dosh*. Results of microscopy and preliminary organoleptic properties were cross verified with

individual raw drug of Rasnadi Guggulu with the parameters mentioned in Ayurvedic pharmacopia of India and all the ingredients were proved to be authentic. The result of present study will also serve as reference standards in the preparation of drug formulation and also help in further clinical researches.

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