

Review Article on Clinical Evaluation of *Kshaumaadi Karnadhoopana and Rasnaadi Guggulu in Karnasrava (CSOM)*

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Abstract - *Karnasrava* is one of the common ear diseases described in Ayurvedic classics under *Karna Roga*. It is characterized by discharge from the ear and can be correlated with Chronic Suppurative Otitis Media (CSOM) in modern medicine on the basis of signs and symptoms. CSOM is a chronic inflammation of the middle ear associated with recurrent ear discharge through a perforated tympanic membrane.⁽¹⁾ Global prevalence rate varies from 1% and 46%, it has been estimated that 65-330 million individuals have discharging ears, 60% of whom suffer from significant hearing impairment.⁽²⁾

The present clinical study evaluates the efficacy of *Kshaumaadi Karnadhoopana* (medicated fumigation therapy) along with *Rasnaadi Guggulu* in the management of *Karnasrava*. A total of 40 patients diagnosed with *Karnasrava* (CSOM) were selected from OPD/IPD and treated with *Kshaumaadi Karnadhoopana* topically and *Rasnaadi Guggulu* orally.

Assessment was done on subjective parameters like ear discharge and earache and objective parameters like consistency of discharge, TM perforation size, tenderness over mastoid antrum and degree of hearing loss. Results showed significant improvement in ear discharge, pain, tenderness over mastoid antrum, degree of hearing loss indicating that the combined therapy is effective, safe, and economical in the management of *Karnasrava*.

Keywords: *Karnasrava*, CSOM, *Kshaumaadi Karnadhoopana*, *Rasnaadi Guggulu*, *Karna Roga*

INTRODUCTION

Ayurveda describes 28 types of *Karna Rogas*, among which *Karnasrava* is an important disease characterized by discharge from the ear. The term *Karnasrava* literally means "flow or discharge from the ear." It is primarily considered a *Vata-Kapha* predominant *Tridoshaja* disorder affecting the ear canal and middle ear structures.⁽³⁾

In modern medicine, *Karnasrava* can be correlated with Chronic Suppurative Otitis Media, a chronic inflammatory disease of the middle ear characterized by persistent discharge through a perforated tympanic membrane. CSOM usually develops after acute otitis media and is associated with microbial infection, Eustachian tube dysfunction, and poor hygiene.

CSOM remains a major health problem in developing countries due to limited healthcare resources and poor sanitation. CSOM has been a challenging and frustrating entity for both patients and otolaryngologists over years as it requires long term treatment and followup. Despite this, there could be recurrences.⁽⁴⁾

Ayurvedic management includes Shodhana and Shamana therapies, among which *Dhoopana Karma* (medicated fumigation) is described as an effective procedure for ear disorders. *Dhoopana* possesses antimicrobial, antifungal, analgesic, and anti-inflammatory properties.

Kshaumaadi Karnadhoopana helps in drying the discharge, reducing infection, and cleansing the ear canal, while *Rasnaadi Guggulu* works systemically to reduce inflammation and pain.

Therefore, the present study aims to clinically evaluate the efficacy of *Kshaumaadi Karnadhoopana* with *Rasnaadi Guggulu* in the management of *Karnasrava*.

AIM AND OBJECTIVES:

Aim

To evaluate the clinical efficacy of *Kshaumaadi Karnadhoopana* and *Rasnaadi Guggulu* in the management of *Karnasrava* (CSOM).

Objectives-

- To study the clinical features of *Karnasrava* in relation to CSOM.
- To assess the effect of *Kshaumaadi Karmadhoopana* in reducing ear discharge.
- To evaluate the systemic effect of *Rasnaadi Guggulu* in controlling inflammation and pain.
- To analyze the overall therapeutic outcome of combined therapy.

MATERIALS AND METHODS:

-Study Design

Open randomised clinical study.

-Source of Data

Patients were selected from the OPD and IPD of Shalaky Tantra department.

-Sample Size

40 patients diagnosed with *Karnasrava* (CSOM).

-Duration

18 months

DIAGNOSTIC CRITERIA:

Inclusion Criteria-

- Patients willing to register.
- Patients aged between 16–60 years.
- Patients having specific signs and symptoms of CSOM and *karnasrava*.
- Tubotympanic type of CSOM.
- Active cases of Tubotympanic csom with chronicity <2yrs.

Exclusion Criteria-

- Patients not willing to register.
- Patients below 16yrs and above 60yrs.
- Pregnant women and lactating mothers.
- Patients with complications of CSOM.
- Attico antral type of CSOM.
- Systemic diseases like HTN,DM.Meningitis,Tuberculosis etc.
- Non vaccinated covid 19 patients.

ASSESSMENT CRITERIA:

The assessment done on the subjective and objective parameters and scoring system was adopted for assessing sign and symptoms of *Karnasrava* and CSOM before and after the completion of trial.

SUBJECTIVE PARAMETERS:

1. *Vedana* (Earache)
2. *Srava* (Discharge)

OBJECTIVE PARAMETERS:

1. Consistency of discharge
2. TM Perforation Size

3. Tenderness over Mastoid Antrum
4. Badhirya (Degree of hearing loss)

SUBJECTIVE PARAMETERS:

Grading Assesment :

- a) *Vedna* (Earache)-
 - 0- No earache
 - 1- Not continuous on and off in a day
 - 2- Continuous but not incapacitating normal activity
 - 3- Continuous throughout and incapacitating normal activity.
- b) *Srava* (Discharge)-
 - 0- No discharge
 - 1- Discharge near Tympanic Membrane.
 - 2- Discharge irrigating in the ear canal.
 - 3- Discharge coming out of ear canal.

OBJECTIVE PARAMETERS :

- a) Consistency of discharge-
 - 0-Serous
 - 1-Mucoid
 - 2- Mucopurulent
 - 3-Serosanguinous
- b) TM perforation size
 - 0- Small pin point perforation (75%)
 - 1- Involves more than 1 and less than 2 quadrants (25-50%)
 - 2- Large perforation (50-75%)
 - 3- Complete or total perforation (>75%)
- c) Tenderness over mastoid antrum
 - 0- No tenderness.
 - 1- Little response on sudden pressure.
 - 2- Wincing on face on slight touch.
 - 3- Resist to touch.
- d) Badhirya (Degree of hearing loss.)
 - 0- 0-20 db
 - 1- 20-40 db
 - 2- 40-60 db
 - 3- > or equal to 60db

CRITERIA FOR WITHDRAWAL:

- Personal Matters
- Cases complicated with superadded infections

METHOD OF TREATMENT/INTERVENTION

1) Selected drug:

- 1) *Kshaumadi Karnadhoopana*
- 2) *Rasnaadi Guggulu*

2) Form of Medicine:

- 1) *Kshaumadi Karnadhoopana*-Fumes

2) *Rasnaadi Guggulu* - Vati.

3) Composition of Medicine:-

1) *Kshaumadi Karnadhoopana*: *Atsi, Agaru, Guggulu, Ghrita*.

2) *Rasnaadi Guggulu* : *Rasna, Devadaru, Amrita, Guggulu, Shunthi, Eranda*

4) Preparation and Storage of Medicine:-

1. *Kshaumadi Karnadhoopana*: All the contents of *Kshaumaadi Karna Dhoopana (Yava, Agaru, Guggulu and Ghrita)* will be taken in 2 gm quantity each, and then will be put in *Karna Dhoopana Yantra* and heated followed by fumigation in affected ear.

2. *Rasnaadi guggulu* will be prepared in Rasa shashtra department as per Ayurvedic texts and will be in packaging form.

Dose of Medicine & Route of Administration:

1. *Kshaumadi Karnadhoopana*- 8 gm for *Karna dhoopana* .There were 3 sittings each of 5 days with an interval of 3 days in each sitting.
2. *Rasnaadi Guggulu*-1tab of 500mg twice orally after meals for 21 days.

Observation and Results:

PERCENTAGE OF IMPROVEMENT IN SUBJECTIVE PARAMETER-

Subjective	Mean		Median		SD	Wilcoxon W	P-Value	% effect	Result
	BT	AT	BT	AT					
Ear Discharge	1.51	0.05	1.39	0.13	0.85	-703.00	p<0.001	96.61%	H.Sig
Pain	1.39	0.13	1.00	0.00	0.73	-435.00	p<0.001	90.70%	H.Sig

PERCENTAGE OF IMPROVEMENT IN OBJECTIVE PARAMETER-

OBJECTIVE	MEAN		S.D	S.E	P-value	%Effect	Result
	BT	AT					
Consistency of discharge	2.45	0.18	0.95	0.15	P<0.001	92.47%	H.Sign
TM Perforation size	1.38	1.09	0.46	0.10	P<0.010	20.68%	Sign.
Tenderness over mastoid antrum	1.75	0.25	1.51	0.53	P<0.001	85.71%	H.Sign
Degree of hearing loss	1.24	0.60	0.64	0.13	P<0.001	51.61%	H.Sign

DISCUSSION

Karnasrava is mainly caused by *Vata-Kapha* vitiation affecting the ear structures. *Kapha* causes excessive discharge while *Vata* causes pain and dryness.

Effect of *Kshaumaadi Karnadhoopana*-

- Smoke therapy has antimicrobial action.
- Heat and herbal vapours help dry secretions.
- Reduces infection and inflammation.

Effect of *Rasnaadi Guggulu*-

- Contains *Rasna* and *Guggulu*, known for anti-inflammatory properties.
- Helps pacify *Vata* and *Kapha*.
- Reduces pain and swelling.

Combined therapy works both locally and systemically, thus providing better therapeutic outcomes.

Conclusion-

The present study demonstrates that *Kshaumaadi Karnadhoopana* combined with *Rasnaadi Guggulu* is effective in the management of *Karnasrava* (CSOM).

The therapy significantly reduces ear discharge, pain, and itching with minimal side effects. It is simple, cost-effective, and can be performed at OPD level.

Further studies with larger sample sizes and longer follow-up periods are recommended to validate these findings.

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