

## Critical review of effect of Karnadhupana in Karnasrava W.S.R. to Chronic Suppurative Otitis Media

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### Abstract:

*Ayurveda is a branch of science which deals with maintenance of health and prevention of diseases of the body. Ayurveda is divided into eight branches and Shalaky tantra is one of them. Ear is a very precious organ. It is mentioned as one of the Panchendriya. It is also one of Bahirmukh srotas. It is important for hearing and maintaining equilibrium balance of the body. Vata and Kapha dosha vitiation causes Karnasrava. It has symptoms like discharge through ear, pain in ear, itching in ear and hearing loss. Karnasrava is disease mentioned in 28 karnarogas in Sushruta samhita. Karnadhupana is described as treatment for Karnasrava. In present study, karnadhupana with guggulu and Vacha churna was highly significant in Karnasrava at p value 0.001.*

**Keywords:** Karnasrava, guggulu, vacha, karnadhupana

### Introduction:

**A**yurveda is a science which deals with maintenance of health and prevention of any disease in the body.<sup>1</sup> Our Ayurveda has eight branches and it is called as Ashtang Ayurveda.<sup>2</sup> *Shalaky Tantra* is a branch of *Ashtang* Ayurveda which deals with maintaining health and treating disease of head and neck area.

Karna is described in Nine Bahirmukh Srotas and also it is one of the Panchendriya.<sup>3</sup> It is called as Shrotendriya. Ear has two main functions in our body – Receiving of sound and maintenance of equilibrium posture in the body. Karnasrava is one disease mentioned in 28 Karnarogas described in Sushrut Samhita.<sup>4</sup> Acharya Vagbhava did not mention Karnasrava, but he mentioned treatment part of Karnasrava chikitsa.

Our lifestyle has been changed to unhealthy, due to mainly malnutrition, unhealthy diet, smoking, alcohol consumption, drug abuse, stress, sedentary lifestyle and pollution. These factors are mainly responsible for upper respiratory tract infection which leads to chronic suppurative otitis media (Karnasrava). Chronic otitis media is commonly occurring disease in today's ear according to modern science. A clinical fracture of Karnasrava resembles with otorrhoea. This disease can result in hearing loss, so early treatment is

necessary for this disease. It is treated by antimicrobial drug having systemic as well as local effect in modern science. These antibiotics have chances of their resistance after some time, adverse effects on the host including allergic reactions, immune suppression, hypersensitivity reactions etc. The prevalence rate varies in different areas of the world. It is more in South East Asia, Eastern Pacific and Africa region. According to WHO, its occurrence is 65 to 330 million individuals. India has the highest count in South East Asia region, about 7.8% in school-going children in Tamilnadu observed in survey.<sup>5</sup>

Acharya Sushruta has mentioned dhupana karma with Rajvrukshadi and Surasadi gana aushadhi for Karnasrava. We can avoid the adverse effects of modern medicines by use of this dhupana karma. Various dhupana karmas are described for karnadhupana. Here for this study, guggulu and Vacha churna have been selected for this study.<sup>6</sup> So this study is an attempt to view the role of karnadhupana in the management of Karnasrava W.S.R. to Chronic Suppurative otitis media.

### ❖ Aim:

To evaluate the effect of Karnadhupana in the management of Karnasrava W.S.R. to Chronic Suppurative Otitis Media.

### Objective:

1. To evaluate the effect of Karnadhupana in the management of Karnasrava.

2. To observe any side effects of *Karnadhupana*.
3. Detail study of *Karnasrava* & chronic Suppurative Otitis Media.

		<i>u</i>			<i>ha, vish ada</i>	<i>Vatashamak</i>
<b>Vach a</b>	Acor us cala mus Linn.	<i>Kat u, Tik ta</i>	<i>Ush na</i>	<i>Kat u</i>	<i>Lagh u, Tiks hna</i>	<i>Kaphavatas hamak, Pittavardha k</i>

❖ **Material and Methods :**

➤ **Selection criteria:**

▪ **Inclusion criteria:**

1. Patients between age group of 20 to 65 years were selected.
2. Patients with *Karnasrava* were selected.
3. Patients will be selected irrespective of sex, marital status, religion, education and economical status.
4. Patients willing for trial.
5. Patients of *Karnasrava* having following symptoms-

- *Karnasrava* (ear discharge)
- *Karnakandu* (itching)
- *Karnashula* (Earache)
- *Karnabadhira* (hearing loss)

▪ **Exclusion criteria:**

1. Patients having serious congenital anomalies.
2. Patients suffering from serious systemic illness.

▪ **Karnasrava :**

*Karnasrava* is a disease mentioned in *Karnaroga vidnyaniya* under 28 *Karnarogas* by Acharya Sushruta in *Sushrut Samhita*.<sup>7</sup> Acharya Charaka described *Karnasrava* as a symptom under four types due to vitiation of *Vata dosha*. Acharya Charaka has described the treatment of *Karnasrava* as *Vrana Chikitsa*. Various treatments prescribed for *Karnasrava* in *Ayurveda* and for keeping ear clean are *karnapurana* (instillation of drug in ear), *Karna dhupana* (fumigation of ear), *Pramarjana* (ear cleaning), *Shirovirechana*, *Dhavan* and *Prakshalan*.

▪ **Drug:**

For this *Karnadhupana*, *Vacha churna* and *guggulu* are used.

The properties of each drug is as follows:<sup>8</sup>

Dravya	Latin name	Rasa	Veerya	Vipaka	Guna	Karma
<b>Guggulu</b>		<i>Tikta, kat</i>	<i>Ushan</i>	<i>Katu</i>	<i>Laghu, Ruks</i>	<i>Vrushya, Brihan, Lekhana,</i>

▪ **Investigations:**

All routine investigations of blood and urine were done for all the cases. Along with this, few specific investigations were also performed.

A. Blood examinations

CBC with ESR  
BSL (R)

B. Urine examination : routine and Microscopic

C. Some specific Investigations

IgG for tuberculosis  
Monteux test  
Biopsy for fistulous tract on suspected case of tubercular fistula.

HIV for AIDS

D. Radiological investigations

X ray chest PA view

▪ **Methods:**

Total 10 patients were selected and treated.

▪ **Treatment:**

*Karnadhupana* with *Vacha churna* and *Guggulu*

▪ **Duration – 7 days**

Follow up – after 7 days

▪ **Procedure –**

**Poorvakarma** – The patient was asked to sit on chair comfortably. The place should has sufficient light and devoid of dust in air. The affected air was cleaned thoroughly with Aural suctioning and then mobbed with Jobson's horn probe coated with cotton prior to *dhupana karma* every time.

**Pradhan karma** – The patient was asked to relax completely on the chair and fumed are transferred into the ear with *dhupana tantra*. *Karna dhupana yantra* has two ends which are funnel shaped. One end is for the passage of *dhuma* into the ear canal and other end was in directly contact filled with smoked from *Shuddha Guggulu* and *Vacha churna*. *Dhupana* was given for 5 minutes.

**Paschat karma** – Patient was given advice fo take care as

1. Avoid head bath, swimming
2. Avoid oil instillation in ear
3. Avoid doing valsalva maneuvers

▪ **Statistical Analysis:**

By Paired ‘t’ test.

▪ **Assessment Criteria :**

**1) Karnasrava (Discharge through ear)**

No Discharge	0
Very negligible Discharge	1
Medium discharge	2
Profuse discharge	3

**2)Karnakandu (Itching)**

No itching	0
Negligible itching	1
Intermittent itching	2
Continuous itching	3

**3)Karnashool (pain in ear)**

No pain	0
Mild pain	1
Medium pain	2
Severe pain	3

**4)Karnabadhira (hearing loss)**

No hearing loss	0
Mild hearing loss	1
Medium hearing loss	2
Continuous hearing loss	3

❖ **Observation and Results:**

The response of treatment was observed and recorded on a case paper and data collection by clinical study.

Sr. No.	Assessment criteria	Karnasrava	Karnakandu	Karnashula	Karnabadhira
1.	Cas e 1	B	2	2	2
		A	0	0	1
2.	Cas e 2	B	2	3	2
		A	0	0	1

		A	1	2	1	0
3.	Cas e 3	B	2	1	0	2
		T				
		A	1	0	0	1
4.	Cas e 4	B	0	1	2	2
		T				
		A	0	0	1	1
5.	Cas e 5	B	1	1	2	0
		T				
		A	0	1	1	0
6.	Cas e 6	B	0	2	3	2
		T				
		A	0	0	1	1
7.	Cas e 7	B	2	3	2	1
		T				
		A	0	1	1	0
8.	Cas e 8	B	2	2	3	3
		T				
		A	1	1	2	1
9.	Cas e 9	B	3	2	2	2
		T				
		A	1	1	1	1
10	Cas e 10	B	0	2	0	2
		T				
		A	0	0	0	0

(BT- Before Treatment, AT- After Treatment)

▪ **Results:**

Effect of *Karnadhupana* on cardinal symptoms of *Karnasrava* is as follows

Cardinal Symptoms	N	Me an BT	Me an AT	S. D.	S. E.	‘t’	P valu e	Res ult
<b>Karnasrava</b>	10	1.4	0.4	0.67	0.211	4.7393	P<0.001	H.S.
<b>Karnakandu</b>	10	1.9	0.6	0.455	0.143	9.09	P<0.001	H.S.
<b>Karnashula</b>	10	1.8	0.9	0.322	0.101	8.91	P<0.001	H.S.
<b>Karnabadhira</b>	10	1.8	0.5	0.455	0.143	9.09	P<0.001	H.S.

(BT- Before treatment, AT- After treatment, S.D- Standard Deviation, S.E.- Standard Error of mean)

❖ **Discussion :**

Karnasrava is a commonly occurring disease. It can occur at any age. Guggulu has laghu, rukaha, tikshana, vishad guna with Ushna veerya. It is mainly Vatakaphashamak and this property reduces the discharge from ear. Ushna guna of Guggulu helps for Vatashamana and acts as Vranashodhaka, vranaropaka and vedanasthapana. It is used in kaphavatroga. Guggulu has been mentioned in number of dhupana formulations. The volatile oil of guggulu was found to be highly effective against *Rhizoprothomnica* which suggested its role as fumigant. An active compound 5(1- Methyl, 1 – aminoethyl) 5 – methyl – 2 – octanone of the methanolic extract of guggulu gum passed significant antibacterial activity against gram positive bacteria and moderately active against gram negative bacteria.

Vacha also has laghu, tikshna, guna with Katu veerya and it is vataghna, kaphahara. It reduces discharge from ear. Vacha is also krumighna, Jantughna. It is used in Kaphavataroga.

*Karnadhupana* is highly significant in *Karnasrava* at p value 0.001. The statistical analysis is done by paired 't' test.

❖ **Conclusion:**

*Karnasrava* is a disease caused due to vitiation of *Vata kapha dosha*. It shows symptoms like discharge from ear, itching in ear, pain in ear and hearing loss. *Karnadhupana* is mentioned for *karnasrava*. Guggulu and Vacha has the antibacterial activity. They also reduces the discharge through ear by decreasing Vata and Kapha disha. There is decrease in assessment value between before Treatment and after Treatment. It is highly significant at p value 0.001.

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