



**International Journal of Biology, Pharmacy
and Allied Sciences (IJBPAS)**

'A Bridge Between Laboratory and Reader'

www.jbpas.com

A SINGLE CASE STUDY ON AYURVEDIC MANAGEMENT OF KARNASRAVA WITH SPECIAL REFERENCE TO OTORRHOEA

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Received 15th April 2023; Revised 8th June 2023; Accepted 23rd Sept. 2023; Available online 1st June 2024

<https://doi.org/10.31032/IJBPAS/2024/13.6.8117>

ABSTRACT

Shalaky tantra is a branch of Ayurveda that focuses on *urdwajatrugata roga*, specifically addressing diseases of the eye, ear, nose, throat, mouth, and their management. *Karna*, classified as one of the *navadwaras* (external openings), primarily pertains to the *Akasha mahabhuta*. *Karnasrava*, a prominent disease according to Ayurvedic texts such as those written by Acharya *Sushruta*, *Vagbhata*, and *Charaka*, manifests as purulent discharge from the *karna*, primarily caused by *vata dosha*. Purulent mucoid discharge predominantly accompanies middle ear diseases and can be compared to conditions like acute suppurative otitis media and chronic suppurative otitis media. Notably, otorrhoea associated with ASOM and CSOM exhibits symptoms including pus discharge, pain, itching, tympanic membrane perforation, and hearing loss. This case study underscoring the significance of Ayurvedic management in addressing *karnasrava* in a 79 year old patient, presented with muco purulent discharge, pain along with hearing difficulty in left ear. Here, the patient was given with *Guggulu panchapala churna*, *Manjishtadi kashaya* as internal medications. These drugs are having the properties of wound healing, anti-bacterial, anti-inflammatory, analgesic and cell rejuvenating action. This patient was also treated with some external procedures like *karna pramarjan* with *Pnchavalkala kwath*, *Karnadhoopan* with *swetha sarshapa*, *guggulu*, *vacha* and *nimba*. The drugs used here for the procedures are having the

qualities like wound healing, anti-microbial, anti-inflammatory and analgesic. In this case study the patient experienced relief from all the symptoms after 14 days of treatment. So this case study shows ayurvedic treatment is very effective in managing *karnasrava*.

Keywords: *Karnasrava*, ASOM, CSOM, *Karnadhoopan*, *Karna pramarjana*

INTRODUCTION

According to Ayurveda, *karnasrava* is recognized as one of the primary diseases affecting the ear. Its description can be found in the works of prominent Ayurvedic scholars such as *Sushruta*, *Vagbhata*, and *Charaka*. *Sushruta* specifically mentions *karnasrava* in the chapter titled "*Karnaroga Vigyania*." *Charaka* includes *karnasrava* as a symptom under the classification of four types of *karnarogas* resulting from the vitiation of different doshas. *Vagbhata* describes *karnasrava* as a symptom present in all types of *karnashoola* [1-4].

In modern medicine, *karnasrava* can be correlated with otorrhoea, which is commonly associated with acute suppurative otitis media (ASOM) and chronic suppurative otitis media (CSOM). ASOM and CSOM refer to inflammatory conditions of the middle ear mucosa and cleft, characterized by purulent discharge, swelling, pain, tympanic membrane perforation, and hearing impairment. ASOM is typically divided into five stages, including the stages of retraction, presuppurative, suppurative, resolving, and complications. The suppurative stage of

ASOM is marked by purulent mucoid discharge as the main symptom. CSOM is characterized by an active and inactive stage, with the active stage often presenting with perforation and discharge. These conditions can affect individuals of both sexes and all age groups [5-8].

According to Ayurveda, the main causes leading to *karnasrava* include head injuries, exposure to cold water, and abscess formation within the ear. Modern medicine identifies repeated ear infections, water entering the ear, infections of the nose and nasopharynx, and inefficiency of the Eustachian tube as the primary causes. Both Ayurveda and modern science agree that the nose and nasopharynx play a significant role in the occurrence of *karnasrava* [9, 10].

AIM

To determine the efficacy of ayurvedic management in *karnasrava*, through the application of some ayurvedic procedures (*Karnapramarjan*, *Karnadhoopan*) and internal medications (*Guggulu panchapala churna*, *Manjishtadi kashaya*).

CASE REPORT

Patient named XY, aged 79, male, from Karmad, Jambusar, Gujarat, came to the *Shalakyatantra* ENT OPD of Parul Ayurveda Hospital with complaints of discharge from the left ear associated with hearing difficulty and occasional pain. He had been experiencing these complaints for 1 year, but they worsened over the last 2 months. He had

not undergone any treatment before. The case was diagnosed as *Karnasrava* due to Chronic Suppurative Otitis Media.

History of past illness: History of allergic rhinitis. There is no history of diabetes mellitus or hypertension.

Family history: All family members are reported to be normal.

Table 1: Personal History

Appetite	Normal
Food	Vegetarian
Sleep	Disturbed
Bowel	Regular
Urine	5 to 6 per day-1 to 2 per night
Addiction	Tea
Allergy	Nil

After getting all the details of history and past history the patient was advised to be admitted in *Shalaky Tantra* IPD ward of Parul Ayurved Hospital for further examination and management.

DOA: 11/07/2022

OPD NO: 22014428

IPD NO: 222454

WARD NO: 309

BED NO: 176

ON EXAMINATION

1. EAR

- **Right ear**

EAC: Normal

TM: Normal

Post auricular region (Mastoid surface): No tenderness on palpation

- **Left ear**

EAC: Muco purulent discharge noticed

TM: Medium sized central perforation with inflammation

Post auricular surface (Mastoid surface) - No tenderness on palpation.

- Rinne test

Right ear- AC>BC

Left ear- BC>AC

2. NOSE

Atrophic changes noted bilaterally

3. THROAT

No abnormality noted

PLAN OF TREATMENT

Table 2: Internal Medications

MEDICINE	DOSE	ANUPAN
<i>Guggulu panchapala churna</i>	2 gm BD for 14 days	With <i>Madhu</i> After food
<i>Manjishtadi kashaya</i>	60 ml BD for 14 days	Before food

Table 3: Ayurvedic Procedures

PROCEDURE	DRUGS	DAYS	TIME
<i>Karnapramarjan</i> on left ear	<i>Panchavalkala kwath</i>	For 14 days (BD)	5 min
<i>Karnadhoopan</i> on left ear	<i>Churna of Swetha Sarshapa Nimba Vacha Guggulu</i>	For 14 days (BD)	5 min

PREPARATION OF MEDICINE

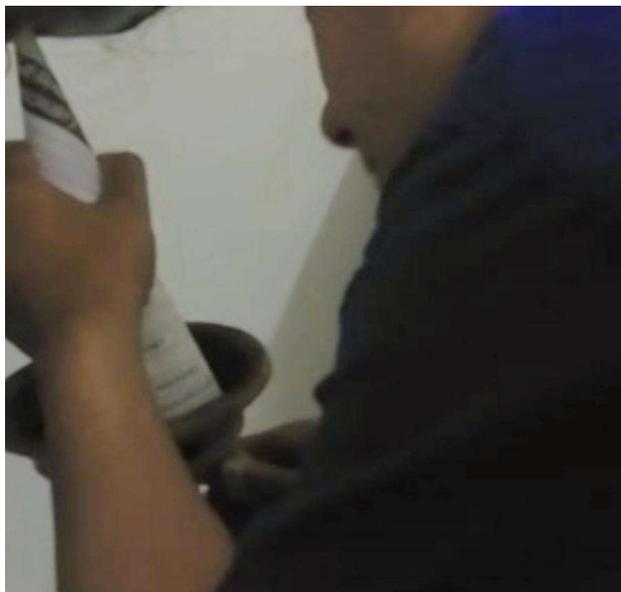




Table 4: Drug Review

Drug name	Rasa	Guna	Veerya	Vipaka	Karma	Phytochemical constituents	Property
<i>Pippali</i>	<i>Katu</i>	<i>Laghu Tikshna</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vata kapha hara</i>	Piperine piperlongumine	<ul style="list-style-type: none"> ● Anti-inflammatory ● Analgesic ● Antioxidant ● Antimicrobial
<i>Haritaki</i>	<i>Pancha rasa not lavana</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosha hara</i>	Chebolic acid Tanic acid Gallic acid	Anti-bacterial Anti-fungal Anti-oxidant
<i>Vibhitaki</i>	<i>Kashya</i>	<i>Ruksha Laghu</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosha</i>	Tannins Ellagic acid	Anti-oxidant Anti-microbial
<i>Amalaki</i>	<i>Pancha rasa not lavana</i>	<i>Guru</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Tridosha hara</i>	Gallic acid Chebulagic acid	Analgesic Anti-oxidant
<i>Guggulu</i>	<i>Tikta Katu</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Tridosha</i>	Triterpenoids Lignans	Anti-inflammation Sulahara Wound healing
<i>Manjishta</i>	<i>Tikta Kashya Madhura</i>	<i>Guru Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha pitta samaka</i>	Quinones Flavonoids	Anti-inflammatory Skin rejuvenating
<i>Vacha</i>	<i>Katu Tikta</i>	<i>Laghu Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha vata samaka</i>	Acolamone Calamen	Anti-oxidant Anti-bacterial
<i>Devadaru</i>	<i>Tikta Katu Kashaya</i>	<i>Ruksha Laghu</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha vata samaka</i>	P-methyl acetophenone Atlantone	Analgesic Anti-inflammatory
<i>Guduchi</i>	<i>Kashya Tikta</i>	<i>Laghu</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vata pitta hara</i>	Berberine Tinosporin	Anti-oxidant Anti-inflammatory
<i>Haridra</i>	<i>Tikta Katu</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Tridosahara</i>	Curcumin curone	Anti-bacterial Anti-oxidant Wound healing
<i>Nimba</i>	<i>Tikta Kashaya</i>	<i>Laghu Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha pitta hara</i>	Nimbin Nimbolide Saponin	Anti-bacterial Anti-ulcer
<i>Nyagrodha</i>	<i>Kahaya</i>	<i>Guru Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha pitta samka</i>	Phytostrolin Leucocyanidine	Anti-oxidant
<i>Udumbara</i>	<i>Kashya</i>	<i>Guru Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Pitta kaphahara</i>	Glauanol	Anti-microbial
<i>Ashwatha</i>	<i>Kashya</i>	<i>Guru Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha pitta samaka</i>	Tannin Henol	Anti-microbial
<i>Plaksha</i>	<i>Kashya</i>	<i>Guru Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha pittahara</i>	Lupeol	Anti-inflammatory

<i>Parisha</i>	<i>Kashya</i>	<i>Laghu Snigdha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha pittahara</i>	Gossypol	Anti-inflammatory
<i>Swetha Sarshap</i>	<i>Katu Tikta</i>	<i>Laghu Snigdha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha vata smaka</i>	Rutin Arabinogalactan	Anti-inflammatory

Table 5: Grading of Symptoms After Treatment

SYMPTOMS	DAY 0	DAY 7	DAY 14
Muco purulent discharge	+++	+	No pain
Pain	++	+	No pain
Hearing loss	Moderate	No improvement	Mild improvement

AFTER TREATMENT

Right ear

EAC: Normal

TM: Normal

Left ear

EAC: No mucopurulent discharge

TM: Medium sized tubo tympanic perforation, no inflammation

RESULT

1. The symptoms of patient improved through the procedures *karna dhoopan* and *karnapramarjan*
2. Internal medication also helped to improve the condition of patient
3. No discharge and pain noticed after treatment
4. Improvement noticed in hearing

DISCUSSION

Karnasrava is explained as one of the *karna roga* by *Acharya Sushruta*, *Vagbhata*, and *Charaka*. *Sushruta* has explained *karnasrava* in *Uttaratantra*, 20th chapter. According to *Sushruta*, *karnasrava* is mainly caused by head injuries, immersion in water, and

suppuration of *vidradhi*. The type of discharge explained by *Sushruta* is muco-purulent in nature.

Karnasrava can be correlated with otorrhea due to Chronic Suppurative Otitis Media (CSOM) and Acute Suppurative Otitis Media (ASOM). ASOM and CSOM are inflammations of the middle ear mucosa and cleft, characterized by purulent discharge from the ear, pain, perforation of the tympanic membrane, and associated hearing impairment. This case was chosen due to the increased prevalence rate of ASOM and CSOM in Gujarat.

The patient was given oral medications (*Guggulu Panchapala Churna*, *Manjishtadi Kashaya*) and Ayurvedic procedures such as *karna pramarjana* and *karnadhoopan*. *Guggulu Panchapala Churna* is a classical medicine containing *pippali*, *triphala*, and *guggulu* as its main ingredients. The active principles of this medicine are glycosides, alkaloids, saponins, flavonoids, tannins, and steroids. Oral administration of *Guggulu*

Panchapala Churna helped to reduce inflammation and pain and was effective in managing wound healing by reducing pus formation. This medicine is easily available and cost-effective. *Guggulu Panchapala Churna* is given with *madhu* as *anupana*. *Madhu* also possesses wound healing properties (*vrana ropana*).

Manjishtadi Kashaya is a widely used Ayurvedic medicine. Its main ingredients are *manjishta*, *triphala*, *tikta*, *vacha*, *devadaru*, *guduchi*, *nimba*, and *haridra*. *Manjishtadi Kashaya* has a relevant role in rejuvenating the skin, and its ingredients have properties like anti-bacterial and anti-inflammatory actions. The tympanic membrane consists of three layers: epithelium, mucous, and fibrous. A healed tympanic membrane will have two layers: epithelium and mucous. The cell rejuvenating property of *Manjishtadi Kashaya* helped in healing the tympanic membrane, and the anti-inflammatory action reduced inflammation and pain.

The external procedures given to the patient are *karna pramarjana* and *karnadhoopan*. The patient experienced remarkable relief from these two procedures. The *karna pramarjana* procedure is mainly used for cleaning and wiping the canal. This procedure helped to remove the discharge and debris from the external auditory canal.

Panchavalkala kwatha is used for this procedure. *Panchavalkala* consists of five drugs: *Nyagrodha*, *Udumbara*, *Ashwatha*, *Plaksha*, and *Parisha*. This group of drugs possesses anti-inflammatory, analgesic, antimicrobial, and wound healing actions. The active component of this drug group is tannins, which are anti-inflammatory and microbial in nature. The *tikta kashaya* rasa and *ruksha* property of *Panchavalkala* drugs helped in absorbing the discharge along with *sodhana* action.

The *karnadhoopan* procedure helps dry up the discharge and provides unfavorable conditions for microbial growth. It also helped to increase vascularity to the ear mucosa. This local treatment is more effective than systemic administration as it effectively treats the disease. Many studies have shown that fumigation has a bactericidal effect on *Staphylococcus aureus*. The bactericidal power depends on the medicine used for fumigation. The drugs used here are *sarshapa*, *arishta*, *vacha*, and *guggulu*. *Swetha sarshapa* has properties like *sulahara*, anti-inflammatory, antiseptic, and antimicrobial action. *Nimba* also possesses properties like anti-inflammatory and antimicrobial action. The anti-ulcer property of the drug also helped in healing the mucosa of the middle ear and reduced inflammation. *Guggulu* is also anti-

inflammatory in nature and has wound healing and *sulahara* actions. The antibacterial action of *vacha* also helped to improve the condition. The drugs used for the *dhoopana* procedure have *tikta*, *kashaya*, *katu rasa*, and *laghu*, *ruksha* properties. This helped to absorb the discharge from the external auditory canal and dry the canal. The temperature of the fumes should be maintained so that it doesn't harm the ear.

CONCLUSION

Taking all factors into consideration, we can conclude that *karnadhoopana* and *karnaparmarjana*, along with the use of internal medications, helped in the management of the disease *karnasrava*. In this case study, the patient experienced relief from all the symptoms, including discharge, pain, and hearing impairment. Therefore, it can be said that Ayurvedic medicines and procedures are effective in managing *karnasrava* with positive outcomes.

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