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Case Study

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# AN AYURVEDIC APPROACH IN THE MANAGEMENT OF KARNASRAVA – CASE REPORT

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### **ABSTRACT**

Karna srava is one of the disease entity mentioned under 28 Karna rogas<sup>[1]</sup> (ear diseases) in Ayurveda. According to Acharya sushruta, karnasrava means discharge through ear. The Samanya Hetu of Karnaroga are Avashaya or Pratishaya that is common cold, Sheeta Vihara or exposure to cold environment, Karnakandu or self-inflicted trauma by use of ear bud or pinto clean itching in ear, Shabda Shashtra Mithyayoga that is misuse of instrument or listening to high sound frequencies. [2] On the basis of the signs and symptoms, Karna srava can be correlated with Chronic Suppurative Otitis Media (CSOM). There are two types of CSOM, i.e., tubotympanic (mucosal) and

atticoantral (squamous). [3] A 27-year-old female patient presented to the outpatient department with complaints of profuse discharge and heaviness in the right ear for 15days and moderate hearing loss, mild pain in right ear. The condition was diagnosed with tubo-tympanic type of CSOM. It was managed by Karna pramarjana (ear mopping), Karna dhoopana (Aural fumigation), and by internal medicines. The total treatment period was of 15 days with the follow-up of one month. After treatment, the patient got significant relief in ear discharge, heaviness in ear, and hearing loss was also improved.

**KEYWORDS:** Karnasrava, CSOM, Ear, Discharge.

## **INTRODUCTION**

Chronic Suppurative Otitis Media (CSOM), is defined as a chronic inflammation of the middle ear cleft, which is characterized with recurrent profuse discharge through perforated Tympanic Membrane (TM).<sup>[4]</sup> The initiation of the disease is mostly in the form of an acute infection, which results in to Acute Otitis Media (AOM). This generally results in perforation of TM, which if not healed, keeps discharging mucoid material, often provoked by upper respiratory infections or soiling of the ear by bating or swimming. The usual bacterial pathogen may be aerobic (e.g., Pseudomonas aeruginosa, Staphylococcus aureus, Streptococcus pyogenes, Proteus mirabilis, and Klebsiella species) or anaerobic (Bacteroides, Peptostreptococcus, and Propionibacterium), and fungal such as Candida albicans. In all these pathogens, P. aeruginosa is most prevalent and more destructive, causing deep seated and progressive destructive disease of middle ear and mastoid structures. The best and cheap treatment of CSOM includes instillation of topical antiseptics or topical antibiotics after thorough aural toileting. [5] However, all the topical drugs used are not safe and may cause oto-toxicity after the long-term use. [6]

Karna srava is a disease entity under 28 Karna rogas. Acharya Vagabhatta has incorporated Karna srava under Karna shoola and stated that it is due to vitiation of Vata, Pitta, Kapha, Sannipata, and Rakta doshas. Karna srava means, any type of discharge from ear. Karna srava is a disease, which has profuse purulent discharge as a dominant symptom. [7] Its clinical profile resembles that of CSOM. In Ayurveda, different modalities of management of Karna srava have been mentioned including Karna prakshalana (aural toileting), Karna pramarjana (ear mopping), Karna dhoopana (aural fumigation), Karna pichu (medicated cotton swab in ear), and Shiro virechana nasya (medicated nasal drops) that help to keep the ear dry and infection free. [8]

#### **Patient information**

A 27-year-old female patient, teacher by profession visited Shalakya Tantra (ENT) Outpatient Department on 15/03/2021 with chief complaints of mild pain with profuse discharge and heaviness in the right ear with no fever from 15 days and reduced hearing in the right ear from last 3-4 days. From the age of 15 years, the patient is suffering from reccurent AOM which was managed with allopathic medications. The treatment resulted in temporary relief in pain and discharge. No major symptoms were noticed after that period.

However, the patient noticed reduced hearing and profuse ear discharge with cold from last 15 days.

h/o – patient is more prone to upper respiratory track infection recurrent cough and cold – from last 1 month

So patient had came for ayurvedic management.

Clinical findings

Afebrile

BP- 130/80 mmhgP- 82/min

RS – clear CVS – NADCNS – NAD**NOSE** 

Anterior rhinoscopy – Nasal mucosa congestion

BL inferior turbinate hypertrophyNo deviation of nasal septum

#### **Throat**

No e/o – Tonsillitis

Posterior pharyngeal wall – congestion

## Ear

Ear	Right ear	Left ear
External pinna	Normal	normal
EAC	Pus discharge+	normal
	Mild inflammation	
TM	Perforation	Intact

## **Assessment criteria**

## 1) Karnasrava(For discharge)

Grade 0- No discharge.

Grade 1-Scanty: If half of cotton bud wet with the discharge.

Grade 2- Moderate: when whole of the cotton bud wet with discharge can be seen.

Grade 3- Profuse: When discharge can be seen by naked eye at the external auditory canal.

## 2) Karna ruja (Pain in ear)

Grade 0: No pain.

Grade 1: Mild pain.

Grade 2: Moderate pain.

Grade 3: Severe pain.

## 3) Karna kandu (Itching)

Grade 0: No itching.

Grade 1: Mild itching

Grade 2: Moderate itching

Grade 3: Severe itching.

## 4) TM perforation

Grade 0: no perforation of tympanic membrane

Grade 1: Small perforation (< 3 mm)

Grade 2: Medium Perforation (3 to 5 mm)

Grade 3: Large Perforation (> 5 mm)

## Tympanic membrane showing perforation before treatment



## Diagnostic assesement

Before treatment Routine investigation such as CBC with ESR,

Blood sugar, Urine analysis were done. – all reports within normal limits. Otoscopic examination – for examination of Tympanic membrane.

#### MATERIALS AND METHODS

Jobsons probe, *Triphala qwath, yav-agaruadi varti, karnadhoopana yantra*, cotton swabs, headlamp, otoscope, *sitopaladi churna, laxmivilas ras, sukshma triphala*.

#### **Procedure**

#### Purvakarma

Written consent of patient was taken before starting the treatment.

- 1. The patient is asked to sit comfortably on chair, having sufficient light and less amount ofdust.
- 2. *Karna pramarjan-* (*The* EAC is cleaned thoroughly by *Pichu varti* (cotton swab) to remove the discharge and other debris.) with *triphala qwath*.

### Pradhankarma

Dhoopana yantra is funnel shaped and its one end will keep the ear covered for the passage of

Dhooma into the ear canal and other end where Yav-agaruwadi Dhoopana varti will be placed which produces fumes.<sup>[9]</sup>

This *Dhoopana* will be given for 5 min.

#### Pashchat karma

- 1. The patient will be advised to avoid cold, refrigerated food, drinks, cold water bath, cold wind, fog and prevent water from entering the ear.
- Advised to take Internal medicine at home.

## Therapeutic interventions

For initial 10 days, Karna pramarjana was done with Triphala quath twice a day. Thereafter, Karna dhoopana with Yav- agaruadi varti was done twice a day for 5 min. Sitopaladi churna (3 g) twice a day, laxmi vilas rasa (250 mg), BD sukshma triphala 2 TDS was administered for 15 days, also given instructions to patient to keep ear dry, avoid water insertion in ear canal during bath.

## **Follow Up and Outcome**

After treatment of 15 days, No discharge was seen in aural cavity, (Grade 0) while tiny perforation was present in TM (Grade I). No pain (Grade 0) and mild itching (Grade 1) Follow up of the patient was done at the regular interval of a week for one month and then telephonically for another two months to enquire about the status of ear discharge or any other complaints. No recurrences were complained by the patient during the period.

## **DISCUSSION**

The case was diagnosed with Karna srava and Ayurvedic treatment was planned considering the symptoms.

### Karna pramarjana

It means to clean or to wipe the auditory canal, helping to eliminate debris from the ear. Without proper cleaning of the ear canal, reducing the ear discharge is not possible. Due to this, there will be chance of growth of micro-organism like fungus leading to otomycosis. Hence, proper ear mopping is must. Mopping was done with sterile cotton swabs in this case.

## Karnadhoopana

Here the drugs used were Yava, Agaru, Madanphal, Guguulu and Ghrita. The yav-agaruadi

vartiprepared from above drugs was used for karnadhoopana. It helps in drying up the auditory canal and also creates an unfavorable condition for growth of microbes. Fumes of *Dhoopana* bring the sudative effect and dries up the Srava. Heating also facilitates vasodilatation and increases the blood circulation which helps in better absorption of drug and healing. Guggulu is having anti-inflammatory, antiseptic, anti-microbial, and fibrinolytic property which helps in wound healing process. We use Agaru, Madana Yawa And Guguul Dhoopana. [10]

Importance of Agaru in Karnaroga is explained by Bhavprakasha. [11] According to this, Karnadhoopana will be done with Agaru because it is Katu, Tikshna, Ushna, Laghu Guna, so it acts as effective Shodhaka, keeps ear dry, reduces pain, discharge, foul smell and thus controls the infection. By Ushna Veerya, it encounters Vata Dosha and Gati of Vata gets normalized. *Dhoopana* is administrating *Dhooma* with the help of *Dhoopana Dravya*. As per Vaghbhatacharya, the management of Karnasrava, Putikarna and Krumikarna is same. Yawaand Madanphal are ruksha and laghu which act as vatghna and vedanasthapak.

#### **Internal medicine**

Sitopaladi churna, Sukshma Triphala, and laxmi vilasa rasa possess Rasayana, Snigdha, Sheeta, Madhura, anti-allergic, and antibiotic properties. Complete remission in heaviness in the ear, ear discharge was noticed by the end of treatment. Utmost drugs are having antibacterial and anti-inflammatory activities so it eradicates local and systematic infections, decreases mucosal edema of Eustachian tube and promotes proper drainage of middle ear secretions.

## **CONCLUSION**

The case report demonstrates clinical improvement in Karna srava with Ayurvedic management. Treatment used here is effective, easily approachable, Simple and Economical.

As this is the single case study, it may open a new path to clinicians and researchers for exploring the treatment of *Karna srava*.

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