A SINGLE CASE STUDY ON EFFECT OF LAKSHADI CHOORNA KARNADOOPANA IN OTOMYCOSIS ASSOCIATED WITH OTITIS MEDIA

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ABSTRACT

Otomycosis is a common condition encountered in a general otolaryngology clinic setting and has typically been described as fungal infection of the external auditory canal with frequent complications involving the middle ear. Although rarely life threatening, the disease is a challenging and frustrating entity for both patients and otolaryngologists as it frequently requires long-term treatment and follow-up. Despite this, there could be recurrences. Karnasrava is a disease mentioned by Acharya Sushruta in the chapter of Karnaroga Vigyaniya under twenty-eight Karnarogas. Karnasrava is the condition characterized by discharge from Karna and occurs mainly due to Avarana of Vata Dosha. Otomycosis being one of the causes of Karnasrava was selected for the study. Treatment of Karnasrava is explained by Sushruta i.e. Karnadoopana, Karnapoorana, Prakshaalana etc.

Case Study: This is a case report of 50-year-old female patient who had complains of pain in right ear since 1 month associated with watery discharge from right ear. The subject is a known case of diabetic mellitus since 1 year. The Otoscopic examination of bilateral ear, confirmed that, diagnosis of right ear was Otomycosis associated with otitis media.
**Materials and Method:** The subject who approached Shalakya tantra OPD of GAMC with symptoms of right ear pain associated with on and off watery discharge was systematically reviewed. Intervention was planned for Doshic component involved in Karnasrava.

**Result:** The subject showed considerable improvement in right ear.

**Discussion:** Karnasrava is the condition characterized by Srava from Karna and occurs mainly due to Avarana of Vata Dosha. Otomycosis is a fungal infection of external auditory canal and one of the causes for Karnasrava. This study sheds light on holistic treatment like Karnadoopana told in the Ayurvedic classics.

**Keywords:** Otomycosis, Otitis media, Karnasrava, Karnadoopana, External auditory canal.

**INTRODUCTION**

Otomycosis or fungal otitis externa has typically been described as fungal infection of the external auditory canal with frequent complications involving the middle ear. Although rarely life threatening, the disease is a challenging and frustrating entity for both patients and otolaryngologists as it frequently requires long-term treatment and follow-up. Despite this, there could be recurrences.

Otomycosis is one of the common conditions encountered in a general otolaryngology clinic setting and its prevalence has been quoted to range from 9% to 27.2% among patients who present with signs and symptoms of otitis externa and up to 30% in patients with discharging ears. It is worldwide in distribution with a higher prevalence in the hot, humid, and dusty areas of the tropics and subtropics. Overview of the literature reveals Otomycosis to be a common medical problem in India.

Fungi can either be the primary pathogen or be superimposed on bacterial infections. Most patients suffering from early Otomycosis complain of severe itching which often progress to pain, hearing loss, and often leading to tympanic membrane perforations.

Although Aspergillus Niger and Candida albicans are by far the most common offenders, a wide spectrum of other fungi can cause Otomycosis. Various factors have been proposed as predisposing factors for Otomycosis, including a humid climate, presence of cerumen, instrumentation of the ear, immunocompromised host, and, more recently, increased use of topical antibiotic/steroid preparations.

Diagnosis is mostly clinical, and Aspergillus and Candida species are the most commonly identified fungal pathogens. Fungal pathogens have been reported to cause 9% of all cases of otitis externa, but this figure appears to be on the rise, presumably because of the increased use of topical antibiotics.

An infrequently reported complication of Otomycosis is tympanic membrane perforation. Karnasrava is a disease mentioned by Acharya Sushruta in the chapter of Karnaroga Vigyaniya under twenty-eight Karnarogas. Acharya Charaka included Karnasrava as a symptom under the four types of Karnarogas due to vitiation of different Dosha.

Karnasrava is one of symptom of Otomycosis. In Vrana srava Vigyaniya Adhyaya, Acharya Sushruta has described many types of Srava. Out of them Twakaga and Mamsagata Srava is in similar with modern Otomycosis. The general line of treatment of Karnasrava is Shirovirechana, Dhoopana, Karnapoorana, Pramaarjana, Dhaavana, Prakshaalana etc.

In Otomycosis, frequent cleaning of external auditory canal either by suction, evacuation or by syringing, followed by mopping are advised which are very similar to Ayurvedic line of treatment of Karnasrava. Further topical medications are applied as disinfectant, anti-inflammatory and antifungal.

In modern times, many treatments are there, but it is having side effects like burning sensation, stinging sensation etc. The treatment of this particular disease has never been satisfactory and therefore, a number of treatments were advised to relieve this condition. So, to overcome above problems there is a need to find
cheaper and easily available Ayurvedic medicine. In the present study Karnadoopana with Lakshadi choorna and internally Chitrakadi harithaki lehya, Lakshadi guggulu and Sarivadi Vati were selected.

**A CASE STUDY**

**Date of Visit-** 7/7/2019

**Chief Complaints-** pain in right ear and watery discharge on and off since 1month.

**History of present illness:** Patient was apparently normal before 1month back, later she developed pain in right ear with discharge on and off. Then she consulted to our hospital on 7/7/2019. Ayurvedic management was carried out after detailed assessment of her bilateral ear examination and history.

**Past History -** Nothing significant.

**Table 1: On examination (before treatment)**

<table>
<thead>
<tr>
<th></th>
<th>Right ear</th>
<th>Left ear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinna</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>Prearicular area</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>Post auricular area</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>External auditory canal</td>
<td>Otomycosis</td>
<td>Normal</td>
</tr>
<tr>
<td>Tympanic membrane</td>
<td>Central perforation</td>
<td>Normal</td>
</tr>
<tr>
<td>Mastoid</td>
<td>Non tenderness</td>
<td>Non tenderness</td>
</tr>
<tr>
<td>Nose examination</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>Paranasal sinus</td>
<td>Normal</td>
<td>Normal</td>
</tr>
</tbody>
</table>

**Oropharynx –normal**

**Oral cavity –normal**

**Treatment given**

*Yoga is Anubhutha yoga, there is no direct reference of Lakshadi choorna Karnadoopana but Lakshadi choorna contains drugs are antibacterial, antimicrobial and Anti-inflammatory.***

**1st sitting**

(7/7/2019 to 13/7/2019)

2. Karnadoopana with Lakshadi choorna (Laksha, Nimba, Guggulu, Haridra).
3. Tab. Sarivadi Vati-(1-1-1) After food.
4. Tab. Lakshadiguggulu (1-1-1) After food
5. Chitrakadi harithaki lehya (1tsp-0-1tsp) After food

**2nd sitting**

(7/8/2019 to 13/8/2019)

1. Karnadoopana with Lakshadi choorna.
2. Lakshadi guggulu (1-1-1) After food
3. Tab. Sarivadi Vati-(1-1-1) After food.
4. Chitrakadi harithaki lehya (1tsp-0-1tsp) After food

**3rd sitting**

(7/9/2019 to 13/9/2019)

1. Karnadoopana with Lakshadi choorna
2. Lakshadi guggulu (1-1-1) After food
3. Tab. Sarivadi Vati-(1-1-1) After food.
4. Chitrakadi harithaki lehya (1tsp-0-1tsp) After food

<table>
<thead>
<tr>
<th>Sitting</th>
<th>Days</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>7 days</td>
<td>1. Cleaning of fungal growth with help of jobson probe.</td>
</tr>
<tr>
<td></td>
<td>7 days</td>
<td>2. Karnadoopana with Lakshadi choorna (Laksha, Nimba, Guggulu, Haridra).</td>
</tr>
<tr>
<td></td>
<td>7 days</td>
<td>3. Tab. Sarivadi Vati-(1-1-1) After food.</td>
</tr>
<tr>
<td></td>
<td>15 days</td>
<td>4. Tab. Lakshadiguggulu (1-1-1) After food.</td>
</tr>
<tr>
<td></td>
<td>15 days</td>
<td>5. Chitrakadi harithaki lehya (1tsp-0-1tsp) After food.</td>
</tr>
<tr>
<td>2nd</td>
<td>7 days</td>
<td>1. Karnadoopana with Lakshadi choorna.</td>
</tr>
<tr>
<td></td>
<td>7 days</td>
<td>2. Lakshadi guggulu (1-1-1) After food.</td>
</tr>
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<td></td>
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<td>3. Tab. Sarivadi Vati-(1-1-1) After food.</td>
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</tr>
<tr>
<td>3rd</td>
<td>7 days</td>
<td>1. Karnadoopana with Lakshadi choorna</td>
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<td></td>
<td>15 days</td>
<td>4. Chitrakadi harithaki lehya (1tsp-0-1tsp) After food.</td>
</tr>
</tbody>
</table>
1. Otomycosis 90% cured.
2. Central perforation 80% healed.
3. Complete pain reduction.

**DISCUSSION**

In Otomycosis, mainly watery and purulent type of discharge is present which shows the condition of *Paka*. While removing the fungal mass, ulceration of external auditory canal is likely to happen. Considering these points Otomycosis can also be treated in the line of *Dushtavrana*.

Regarding *Sadhyasadhyata*, Acharya Sushruta has mentioned that *Vrana* situated in *Twaka* and *Mamsa* and *Vrana* lying in *Karna* is *Sukha Sadhya*.\(^{(18)}\) In *Uttaratantra*, Acharya Sushruta considered *Karnasrava* itself as *Sadhya roga*.

**Probable mode of action of drug used for Karnadoopana**

*Karnadoopana* is a procedure, introducing medicated *Dhooma* (smoke) into the ears. It helps to dry up the secretions in external auditory canal and inhibit the growth of microorganisms.

*Lakshadi Choorna* contains *Laksha, Guggulu, Haridra and Nimba choorna*. (Anubhutha yoga)

1. *Laksha* has *Kashaya, Tikta and Madhura Rasa* which is called as *Saumya Rasa*. It pacifies *Pitta*. It is mentioned for *Vranaropaka* in *Bhela samhita*.\(^{(19)}\) It is a *Vednashamana, Daha Prashamana, Shothahara and Krimihara* dra-

2. *Guggulu* - helps in relieving *Shotha* and does *Lekhana Karma*. *Guggulu* and *Laksha* are known to be having analgesic and anti-inflammatory properties.

3. *Haridra* - is having *katu* and *Tikta rasa* and *ushna virya*. It is having *rooksha guna*. It is helpful in wound healing. Charaka says – *Haridra is lekhaneeya, kussthaghna and vishaghna*.

4. *Nimba patra choorna* - has good antibacterial effect. *Nimba* is well known and described As *Kandughna, Kussthaghna and Krimighna*. *Nimba* is Vayu and *Akasha mahabhoota Pradhana*. That is why its *patra Dhooma* may act on pyogenic bacteria staphylococcus aureus. This *Nimbapatra Dhooma* stops the multiplication of bacterial cell and dries up the intracellular fluid matrix in a bacterial cell by its *panchabhautik* properties i.e. *rooksha, laghu, vishada and lekhana guna*. This mechanism produces disturbance in bacterial cell’s metabolism and hence resulting in bactericidal action of the dravya.

1. *Nimbapatra Dhooma* acts by inhibiting the growth of bacteria by killing them.

2. *Sarivadi Vati* - It is one of the medicines of *Karnarogas* explained by *Baishajyaratnavali In Karnaroga Adhyaya*.

3. *Chitrakadi Harithaki Lehya*-It is one of the *Amapachana* drug and having properties like mucolytic, antibacterial, anti-inflammatory, antimicrobial, antioxidant and immune modulator. So here I had taken the medicine because it helps in removing of abnormal secretions from *Srothas* like *Karnavaha Srothas*.

4. *Lakshadi Guggulu* - It is one of the best *Asthisandana* drug and *Shoolahara* drug. It helps to heal tympanic membrane perforation.

**CONCLUSION**

*Karnasrava* (Otomycosis) is a disease which may lead to severe complications. Ayurvedic line of treatment gives useful result in the management of *Karnasrava* by improving general status. The mode of treatment was found to be cost effective, safe and easy to imple-
ment. *Lakshadi Karnadoopana* for duration of 7 days and 3 sittings is sufficient for the treatment of the disease *Karnasrava* (Otomycosis), provided with proper *Pathyāpathya*. If *Vrana* associated with *Karnasrava*, *Dushtavrana Chikitsa* can also be adopted in the management of *Karnasrava*.

In the management of the Otomycosis, *Lakshadi Karnadoopana* has shown better results. The duration of the treatment is short; hence, for reaching any definite conclusion, further long-duration studies are needed. Since the study has shown interesting results, it is recommended that the study can be carried on a large number of patients with longer duration to evaluate and analyze the results.

**REFERENCE**


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