INTRODUCTION

The term Karnanada is basically derived from two root words karna and nada. 
Karna – The organ of hearing. 
Nada – Sound or ringing in the ear.

Karna is one of the Adhisthana of Vata-Dosha and according to Acharya Charaka, Karnanada is a Vataja Nanaaatmajya Vyadhi and mainly Vata predominant causative factors are responsible for Karnanada. Snehana becomes important to control the localised increased Vata Dosha.

Karnapoorana - Karna being one of the Adhisthana of Vata-Dosha, Snehana becomes important to control the localised increased Vata Dosha. Hence, Karnapoorana gains importance in the management of Karnanad-Vata predominant diseases.

Ghritapana - Ghrita having property “Samskarasya Anuvartanatva”. When processed with Vatashamaka drugs and having Rasayana Guna becomes the best line of treatment for Karnanada. Hence Ashwagandhadya Ghrita was selected.

The term ‘tinnitus’ stems from the Latin tinnitus meaning to ring, and was introduced by Pliny the Elder. “Tinnitus - a noise in the ears, such as ringing, buzzing, roaring or clicking”. Tinnitus may be defined variously as a sound perceived for more than five minutes at a time, in the absence of any external stimulation of the ear and not occurring immediately after exposure to loud noise ‘phantom auditory perception’ or ‘head noise’.

Tinnitus can be perceived in one or both ears or in the head.

Aims & objectives

The present study has been planned to accomplish the following aims and objectives:

1. Clinical evaluation of combined therapy of Mahamaash Tail and Ashwagandhadya Ghrita on Tinnitus.
2. To develop evidence based support for effect of Mahamaash Tail and Ashwagandhadya Ghrita in Tinnitus as mentioned in our ancient literature and also to analyze the observations and to find the significance of the drug action.

MATERIALS & METHODS

The patients suffering from Karn Nad-tinnitus were randomly selected from O.P.D. of shalakya department of R.G.G.P.G.A.C. & Hospital Paprola Distt. Kangra.
Criteria for inclusion
Patients were selected on the basis of symptoms of Karanada - tinnitus described as per Ayurvedic and modern literature.

Criteria for exclusion
2. Blockade due to stenosis of external auditory canal/wax.
3. Established diabetes mellitus and hypertension.
4. Pregnant, immuno compromised patients.
5. Patients not willing to be registered for the trial.
6. Cases which required surgical intervention.

Plan of work: The study was planned in different steps as mentioned below.

Proforma: A special proforma was prepared to maintain the records of the entire observations regarding the disease.

Investigation: The following laboratory investigations were carried out to assess the condition and to exclude any other pathologies of the patients.
1. Haematology : Hb%, TC, DC, ESR ,Lipid profile.
2. Otoscopy.
3. Tuning fork test.
4. Audiometry.

Grouping & Posology
All the selected patients fulfilling the criteria were taken in single group (10 patients):

Mahamaash taila - for karan purna
Dose - 2 ml each ear
Time - Twice a day
Duration - 300 matra uchharan kala

Ashwgandhadya ghrita - Orally
Dose - 10 gm twice a day
Anupana - Sukoshna Dugdha.
Duration of trial - 1 month

Follow up
- Two follow up at every 10 days during treatment.
- One follow after completion of trial.

Criteria for assessment
The effect of treatment would be assessed by asking following questionnaire form the patients:-

Tinnitus Severity Index Questionnaire

<table>
<thead>
<tr>
<th>Criteria for assessment</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Hearing loss</td>
<td></td>
</tr>
<tr>
<td>0 – 25 db</td>
<td>0</td>
</tr>
<tr>
<td>25 – 40 db</td>
<td>1</td>
</tr>
<tr>
<td>40 – 60 db</td>
<td>2</td>
</tr>
<tr>
<td>&gt; 60 db</td>
<td>3</td>
</tr>
</tbody>
</table>

Effect of Therapy on Hearing loss

Effect of Therapy on TSIQ
Patients treated with Mahamash Taila Karna Poorana, Ashwgandhadya Ghrita Paana the mean score of TSIQ, before treatment was 17.1 and after treatment it came down to 9.6 giving 43.89% relief which was statistically significant (p<0.001).

Effect of Therapy on Hearing loss
Patients treated with Mahamash Taila Karna Poorana, Ashwgandhadya Ghrita Paana the mean score of Hearing loss in Rt ear, before treatment was 49 which it came down to 46.5, giving 5.1% relief which was statistically insignificant (p=0.089) and in Lt ear, before treatment was 62.5 which it came down to 59.16, giving 5.32% relief which was statistically significant (p=0.043).
### Probable Mode of Action

**Karnanada** is a Madhyaama marga gata Vata Vyadhi in which Prakupita Vata dosha settles in Shabdavaha Shrotas as a result of Vimargagamana.  
Hence the drugs need to have Vatahara properties in order to normalize vitiated vata dosha. Snehana is described as an important procedure in treatment of vata dosha.

Mahamash Taila is used for snehana in form of karnapoorana. Mahamash Taila mainly contains ushna virya (65.78%) drugs and til taila is its main ingredient which is considered best for treatment of vata.

**Til Taila** is an essential analgesic and useful for wound healing, skin, ear, dental and hair problems, useful in dryness by acting as Vataharamaka. Local application of oil pack in ear reduces pain.

Research shows that sesame seed oil used for Abhyanga is a potent antioxidant (due to presence of vitamin E). In the tissues beneath the skin, this oil will neutralize oxygen radicals. Magnesium supports vascular health.  
Sesame oil used for Abhyanga & Karnapoorana contains magnesium, copper, calcium, iron, zinc, and vitamin B6. As Magnesium and zinc supplements can help restore stability to inner ear. It may be absorbed by Abhyanga & Karnapoorana.

**Til Taila** having madhur rasa, guru-snigdha guna and ushan virya.

**Maash** has vata shamaka property due to its madhur rasa, madhur vipaka and ushna virya.  

**Rasa Panchak of Mahamaash Tail** having ushan virya (67.58%) and Vatakapha shamaka property. Above mentioned properties of these ingredients of Mahamaash Taila makes it potent in alleviating Vata dosha which is responsible for Karnanada.

Karnapoorana is conducive to the nutrition of the skin and the softness of the muscles. It penetrates into the skin quickly and enters the blood stream, through the capillaries & supply nutrition to nerves. It has a unique quality of getting absorbed easily by the pores in the skin and thereby acts as a catalyst.

### Ashwagandhadya ghrita

All ingredients consists of Madhura rasa which helps in alleviating the kshya of dhatus occurred as a result of vata dosha. Madhura rasa alleviates vata dosha and nourishes different dhatus thereby reducing the symptoms of vata kshya.

**Ashwagandha**: It has vata shamaka property due to its madhur rasa, madhur vipaka and ushna virya. It reduces pain and oedema. In vata diseases and weakness oil massage is done for this Ashwagandha is used as cardrops in ear disease. (Vaidya.V.M. Gogte page.302 part II).

**Ghrita:** having “Samskarysa Anuvartanatva” (Cha.Su.13/13) property when processed with Vataharamaka drugs and having Rasayan Guna becomes the best line of treatment for Karnanada. Hence Ashwagandhadya Ghrita was selected. Ghrita is vata pittashamaka, Balya, Agniivardhaka, Madhura, Saumya, Sheeta virya, vrishya and Fayyashapaka also. Thus, it pacifies vata, improve the general condition of the body and acts as a rejuvenator of the body. Thus, helps in the Samprapti Vighantana of the Karnanada.

The protective effect of Ashwagandha is conceived to be at both the levels:
- At CNS (Cochlear nerve).
- At Hair Cell

On CNS it can be through its GABAergic modulation (an important neurotransmitter) as well as its role to increase in acetylcholine receptor activity and stimulating the growth of axons & dendrites of nerve cells.

On hair cell level it may affect by its active constituents like withaferin A and sitoindosides VII –X which are reported to have an anti-oxidant activity by reducing lipid peroxidation.

Balya, Brimhana, Rasayan and Medhya effect of ghrita can be explained by two ways

Digestion, absorption, and delivery to the target organ is made easy when any drug is processed with ghrita due to its lipophilic action. Anti-oxidant effect of ghrita is due to its vitamin-A & E content.

This suggests that Ashwagandhadhyya ghrita helps in lowering down the degenerative changes occurring at cellular level and empowering the function of sensory organs (may enhances the normal hearing).

### CONCLUSION

Analysis of the study reveals that Karnanada is a disease which mostly affects the people who are having vishamagni and incidence increases with age both conditions are vata dominant conditions and impaired digestion which is due to predominance of Vata Dosha which further result in Dhatukshaya due to improper nutrition. This disease is more common in upper middle class and illiterate people who are more attentive towards their mental and physical health, because tinnitus effects the mental status of a person.

Drugs used in single group, in which result of Mahamaash Tail and Ashawagandhadya Ghrita Paana was highly significant according to TSIQ and was insignificant in hearing loss in Rt. ear and significant in L.t. ear.

### References


7. www.mapi.com


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