

“A CLINICAL STUDY OF APAMARGAKSHARA TAILA KARANPOORANA AND GHRITA PAANA IN THE MANAGEMENT OF KARAN NAAD W.S.R. TO TINNITUS”

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ABSTRACT

Key Words:

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Aacharya Sushruta has explained twenty eight types of *Karna Rogas* and *Karana-naada* is one of them. Vitiated *Vata Dosha* either entering into other channels (*Vimarga Gamana*) or encircled by *Kaphadi Doshas (sangam)* in *Sabdavaha Srotas* produces different types of sounds in the ear like Bheri, Mrudanga, Shankha etc. is known as *Karna Nada*. The clinical features of *Karnanada* relates to *Tinnitus* in modern science. The present study was conducted to evaluate the effect of **APAMARGAKSHARA TAILA** *Karanpurna* and **GO Ghrita Paana** in the management of *Karna naad w.s.r.* to *Tinnitus*. Total 10 patients were registered in single group and all patients completed the trial. The trail was conducted for 30 days and effect of drugs was evaluated. The analysis based on subjective improvements reveals that 5 patients were moderately improved, 4 patients were mildly improved while 1 patient was having no improvements. No adverse effect was seen during the trail and in the follow up as well. The study revealed that **APAMARGAKSHARA TAILA** *Karanpurna* and **GO Ghrita Paana** plays a vital role in the management of *Karna Naad w.s.r.* to *Tinnitus*.

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 *Adhithana* of *Vata- Dosha* and according to *Acharya Charaka*, *Karnanada* is a *Vataja Nanaatmaja Vyadhi*¹ 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 *Adhithana* of *Vata- Dosha*, *Snehana* becomes important to control the localised increased *Vata Dosha*. Hence,

Karnapoorana gains importance in the management of *Karnanada-Vata* predominant diseases. ***Ghritapana-***

Ghrita having property “*Samskarasya Anuvartanatva*”². When processed with *Vatashamaka* drugs and having *Rasayana Guna* becomes the best line of treatment for *Karnanada*. Hence *GO Ghrita* was selected. The term 'tinnitus' stems from the Latin *tinnire* meaning to ring, and was introduced by Pliny the Elder.³ “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 **APAMARGAKSHARA TAILA** and *GO Ghrita* on Tinnitus.
2. To develop evidence based support for effect of **APAMARGAKSHARA TAILA** and *GO 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 *Karna Nada* -tinnitus were randomly selected from O.P.D. of shalakya department of **BHARATI VIDYAPEETH DEEMED TO BE UNIVERSITY, PUNE (INDIA)**
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Criteria for inclusion

Patients were selected on the basis of symptoms of *Karnanada* - tinnitus described as per Ayurvedic and modern literature.

Criteria for exclusion

1. Congenital deformity.
2. Blockade due to stenosis of external auditory canal/wax.
3. Established diabetes mellitus and hypertension.
4. Pregnant, immune 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

Severe -28 – 36

All the selected patients fulfilling the criteria were taken in single group (10 patients):-

APAMARGAKSHARA TAILA⁴ - for karan purna
 Dose - 2 ml each ear
 Time - Twice a day
 Duration - 300 matra uchharan kala
GO ghrita⁵ - Orally Dose -
 10 gm twice a day Anupana -
Sukhoshna Jal.
Duration of trial - 1 month

B. Hearing loss

Grade

0 – 25 db 0
 25 – 40 db 1
 40 – 60 db 2
 > 60 db 3

Criteria for assessment of results

The efficacy of the therapy was assessed on the basis of subjective criteria.

Subjective symptoms score

0 - Absence of symptoms.
 1 - Presence of symptoms in mild degree.
 2 - Presence of symptoms in moderate degree.
 3 - Presence of symptoms in severe degree.

Follow up

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

The effect of the therapy was assessed as below

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

Tinnitus Severity Index Questionnaire

Cured - 100% relief in subjective symptoms.
 Marked relief - More than 75% in subjective symptoms.
 Moderate relief - 51-75% in subjective symptoms. Slight relief - 26-50% in subjective symptoms.
 No relief - Less than 25% in subjective symptoms.

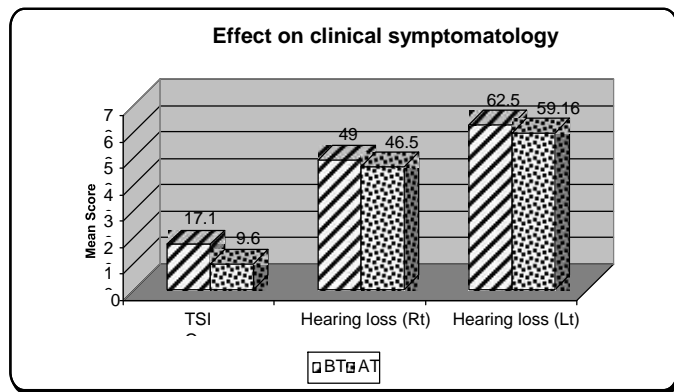
Effect of Therapy

Effect of APAMARGAKSHARA TAILA and Go Ghrita on Symptoms of Karnanada

Sr. No.	Never Does your tinnitus	Rarely (0)	Sometimes (1)	Usually (2)	Sometimes (3)	Always (4)
1.	Still make you feel irritable or nervous					
2.	Still make you feel tired or stressed					
3.	Still make it difficult for you to relax					
4.	Still make you uncomfortable to be in a quiet room or sitting					
5.	Still make it difficult to concentrate					
6.	Still make it harder to interact pleasantly with others					
7.	Intefere with your required activities (work, home, care or other responsibilities)					
8.	Interfere with your social activities/ other things you do in leisure time					
9.	Does your tinnitus still interfere with sleep					

Mild -1 – 9
 Moderate -10 – 18
 Marked -19 - 27

S.No	Criteria	n	Mean score	± SD	± SE	t	P
Difference							
BT AT relief							
1.	TSIQ	10	17.1	9.6	7.55	2.068	0.654
							11.464
							<0.001
2.	Hearing loss(Rt)	5	49	46.5	2.5	5.1	2.5
							1.118
							2.236
							0.089
3.	Hearing Loss(Lt)	6	62.5	59.16		3.028	1.236
							2.697
							0.043
							5.32



Effect of Therapy on TSIQ

Patients treated with; APAMARGAKSHARA TAILA Karna Poorana, Go 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 significant statistically (p<0.001).

Effect of Therapy on Hearing loss

Patients treated with; APAMARGAKSHARA TAILA Karna Poorana, Go 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).

described as an important procedure in treatment of vata dosha.

APAMARGAKSHARA TAILA is used for snehana in form of karnapoorana. APAMARGAKSHARA 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 Vatashamak. 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 vit.E). In the tissues beneath the skin, this oil will neutralize oxygen radicals. Magnesium supports vascular health.⁷

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.⁸

Over All Effect of Therapy on TSIQ

Apamarga has vata shamaka property due to its madhur rasa, madhur vipaka and ushana virya.⁹

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

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 catalystr.

GO ghrita

All ingredients consists of Madhura rasa which helps in alleviating the kshya of dhatus occurred as a result of vata dosha. Madura rasa alleviates vata

Sr. No.	Assessment	Single Group	
		No.of patients	%age
1.	Cured	0	0
2.	Markedly Improved	0	0
3.	Moderately Improved	5	50%
4.	Mild Improved	4	40%
5.	Unimproved	1	10%

Probable Mode of Action

Karnanada is a Madhyama marga gata Vata Vyadhi in which Prakupita Vata dosha settles in Shabdavaha Shrotas as a result of Vimargagamana.⁶

Hence the drugs need to have Vatahara properties in order to normalize vitiated vata dosha. Snehana is

dosha and nourishes different *dhatu*s thereby reducing the symptoms of *vata kshya*.

GoGhrita: having “*Samskarsya Anuvartanatva*” (Cha.Su.13/13) property when processed with *Vatashamaka* drugs and having *Rasayana Guna* becomes the best line of treatment for *Karnanada*. Hence *GO Ghrita* was selected. *Ghrita is vata pittashamaka, Balya, Agnivardhaka, Madhura, Saumya, Sheeta virya, vrishya and Vayasthapaka 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 *Go Ghrita* is conceive 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

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

References

1. Pt.Kashinathshastri and Dr.Gorakhanath Chaturvedi, CharakaSamhita of charaka with Vidyostini Hindi Commentary, Sutrasthana, Reprint edition; 2006 chapter 1 versus 43 Varanasi: Chaukhambha Bhabharati academy, P.18.
2. Pt.Kashinathshastri and Dr.Gorakhanath Chaturvedi, CharakaSamhita of charaka with Vidyostini Hindi Commentary, Sutrasthana, Reprint edition; 2006 chapter 1 versus 43 Varanasi: Chaukhambha Bhabharati academy, P.18
3. Feldmann H. History of tinnitus research. In: Shulman A 6. AmbikadattShastri, SushrutaSamhita of Sushruta with (ed.). Tinnitus: diagnosis/treatment. Philadelphia: Lea Ayurveda TatvaSandipika Hindi Commentary, and Febiger, 1991:3-37. Sutrasthana, Reprint edition 2009; chapter 1 versus 6,

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 A¹¹ and sitoindosides VII-X¹⁰ which are reported to have an anti-oxidant activity by reducing lipid peroxidation.

Balya, Brimhana, Rasayana 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 *GO ghrita* helps in lowering down the degenerative changes occurring at cellular level and empowering the function of sensory organs (may enhance the normal hearing).

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 *Apamarkshar Tail* and *Go Ghrita Paana* was highly significant according to TSIQ and was insignificant in hearing loss in Rt. ear and significant in Lt. ear.

4. Shri Chakrapanidatta, Chakradatta Hindi commentary Varanasi: ChaukhambhaSanskrit Sansthana, P. 5. Vaidyaprabha by indradev tripathi, Reprint edition, 7. www.mapi.com 2005; chapter 22 versus 192-200, Varanasi: 8. Dravyaguna Vigyanam, Vol.II, page 120; Ach. P.V. Chaukhamba sanskrit sansthanP. 154. Sharma; 2005
5. ShriChakrapanidatta, Chakradatta Hindi commentary 9. Dravyaguna Vigyanam, Vol.II, page 396; Ach.P.V. Vaidyaprabha by indradev tripathi, Reprint edition, Sharma; 2005. 2005; chapter 22 versus 91, Varanasi: Chaukhamba 10. Dravyaguna Vigyanam, Vol.II, page 763; Ach.P.V. sanskrit sansthan, P. 148. Sharma; 2005.
11. Database on Medicinal Plants used in Ayurveda & Siddha, Vol- 3, Pg. 90, P.c. Sharma, M.B.Yelne, T.J. Dennis, S.Selvarajan, M.M. Padhi, A.K. Mangal, Reprint 2008.