

**CLINICAL STUDY OF PRATIVISHADI TAIL KARANPURNA AND ASHWAGANDHADYA  
GHRITA PAANA IN THE MANAGEMENT OF KARAN NAAD W.S.R. TO TINNITUS****Dr. Vijayant Bhardwaj\*<sup>1</sup> and Dr. Pankaj Verma<sup>3</sup>**<sup>1</sup>Senior Lecturer P.G.D.of Shalakyia Tantra R.G.G.P.G.A.C. Paprola Kangra H.P.<sup>2</sup>P.G. Scholar P.G.D.of Shalakyia Tantra R.G.G.P.G.A.C. Paprola Kangra H.P.**\*Corresponding Author: Dr. Vijayant Bhardwaj**

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**ABSTRACT**

*Aacharya Sushruta* has explained about *Karna-Nada & Karna Kshweda*. Vitiated *Vata Dosha* either entering into other channels or encircled by *Kaphadi Doshas* in *Sabdavaha Srotas* produces different types of sounds in the ear like *Bheri, Mrudanga, Venughosha, Shankha* etc. is known as *Karna Nada & Karna Kshweda*. Tinnitus is one of the most elusive conditions that health care professionals face. Studies conducted by the National Centre for Health Static estimate that 35-45% of the General population is affected by tinnitus. . The prevalence of tinnitus increases with hearing loss 74%. Taking the above mentioned facts in mind and to bring out patient from uneasiness, frustration, pain and to make him productive for the society, a sincere effort has been made in the present study entitled “**Clinical study of Prativishadi Tail Karanpurnaand Ashwagandhadya Ghrita Paana in the management of Karan Naad w.s.r. to Tinnitus**”. The total number of patients registered in the present study was 30, and all the 30 completed the treatment. Amongst them, total 10 patients were registered in each one of the three groups. All the selected patients fulfilling the criteria were randomly divided into three groups (10 patients in each group) In Group I, *Ashwagandhadyaghrita* (orally) 10 gm twice a day with *Sukhoshna dugdha*. In Group II *Karan purna* with *Prativishadi taila* 2 ml each ear Twice a day for 100 matra uchharan kala. In Group III *Karan purna* with *Prativishadi taila* and *Ashwagandhadya ghrita* (orally) for 1 month. 2 patients in goroup I, 1 patient in group II and 5 patients in group III was markedly improved. 7 patients in group I, 7 patients in group II and 5 patients in group III was mildly improved and rest of the patients remains unchanged.

**KEYWORDS:** *Ayurveda* is ‘the science of life’ had a golden time some centuries back.**INTRODUCTION**

*Ayurveda* is ‘the science of life’ had a golden time some centuries back. It was in oblivion till it was brought to the present era as a revival. In ancient India, this system was the only prevalent one which could help the ailing humanity. The present era is an era of new inventions and the modern science has struck the minds of all by its day to day developments. It is true that the modern science has grown up considerably; still it has to face a big question mark in so far as some miserable problems are concerned. The topic of this thesis is one among them.

The importance of *Ayurveda* in global scenario is because of its holistic approach towards positive life style. The whole *Ayurveda* is divided into eight different branches.<sup>[1]</sup> the branch which deals with the diseases manifesting above clavicle region is called *Shalakyia Tantra*.<sup>[2]</sup> *RajrishiNimi* is the pioneer of the speciality of *Shalakyia*.

*SushrutaSamhita* is the foremost text of *Ayurveda* which explains the ophthalmology, ENT and dentistry in a systematic manner.<sup>[3]</sup> According to *Ayurveda Karnendriya* is originated from *AkaashMahabhut*, which is responsible for perception of sound. *Aacharya Madhava* has clearly explained the situation of *Shrotrendriyaas* the invisible part which is covered externally by auricle.<sup>[4]</sup> For the proper functioning of *Shrotrendriya*, *Akash* and *Vayu Mahabhutas* are very essential. So, *Vata Dosha* is responsible for normal hearing procedure.

*Ayurveda* defines health as a state of mental, physical & spiritual well-being which was acclaimed by WHO as features of a healthy individual. This state of health is attained by equilibrium of three *doshas* where as any imbalance may lead to diseased state or *Roga*. *Vata*, among the three *doshas* is of pioneer importance as it not only controls all *chestas* but its proper functioning is also mandatory for the proper functioning of other two *doshas*.

*Aacharya Sushruta* has explained twenty eight types of *Karna Rogas*.<sup>[5]</sup> and *Aacharya Vagbhata* has described twenty five types of *Karna Rogas*.<sup>[6]</sup> whereas *Aacharya Charaka* has described only four types of *Karna Rogas* in *Trimarmiya Chikitsa*.<sup>[7]</sup> While describing *Karna Rogas* *Aacharya Sushruta* has explained about *Karna-Nada* & *Karna Kshweda*. 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, Venughosha, Shankha* etc. is known as *Karna Nada* & *Karna Kshweda*.<sup>[8]</sup>

*Acharya Yogaratnakara*<sup>[9]</sup> and *Vagbhata*<sup>[10]</sup> have described common etiological factors of *Karna Rogas* like swimming, picking or probing the external auditory canal, improper instrumentation during the examination and treatment, hearing (high frequency) loud sounds, injury to head.

Tinnitus is one of the most elusive conditions that health care professionals face. Studies conducted by the National Centre for Health Static estimate that 35-45% of the General population is affected by tinnitus. A blind person or a lame person can easily be visualized as a handicap and thus they get sympathy. But no one sympathizes with a person suffering from ear problem as his handicap is not noticeable.

Tinnitus derived from the Latin word "Tinnire" which means to ring or tinkle like a bell. Tinnitus is a ringing, buzzing, whistling, hissing or other noise, heard in the ear during absence of environmental noise.<sup>[11]</sup> Tinnitus is characterized by annoying ear noises which can be soft as a whistle or loud enough to be completely debilitating. The prevalence of tinnitus increases with hearing loss 74%.<sup>[12]</sup>

This indicates that over 80% of the patients who have tinnitus, also have some degree of hearing loss. But it is now being seen more frequently in young people who are exposed to loud, amplified music. Noise that can cause tinnitus with long term exposure occur in the home and at workplace environment include noise from welding equipment, power saws, vacuum cleaners, power mowers, and some kitchen appliances.

It is not a condition itself; it is a symptom of an underlying condition such as age related hearing loss, ear injury or a circulatory system disorder. It may be continuous or intermittent. Tinnitus is also due to allergies, diabetes, hypertension, high cholesterol, ear wax, meniere's disease. In old age, it is due to the natural degenerative changes in the body, which when the hearing is impaired is termed as Presbycusis.

A rare form of tinnitus is caused by abnormalities in blood vessels around the ear which cause noise when muscles contract in the ear.

However, 25% of tinnitus sufferers are bothered enough by their tinnitus to seek medical attention. This relates to approximately 1 million tinnitus sufferers who say that their condition seriously disrupts their lives. Severe tinnitus is accompanied by hyperacusis and affective disorders such as phonophobia depression and in some instances non responsive treatment may lead to suicide.

As per modern science tinnitus is difficult to diagnose and treat. Tinnitus "maskers" are helpful to some. This device fits like a hearing aid and is turned on to play sounds at some frequency thus producing a dampening effect on the unwanted noise i.e. Tinnitus. A hearing aid and masker in one unit can also be tried. Low dose of tranquilizers can reduce tinnitus. But all these give a temporary relief and the recurrence rate is high.

In contrast, Ayurveda has a systematic line of treatment in the management of *Karna Nada*. *Vata* become the pathological factor in the disease of *Karna-Nada*. The treatment in *Ayurveda* for four diseases—*Karnashoola, Pranada, Karnakshweda*, and *Badhirya* are similar.<sup>[13]</sup> The treatment regimen as per dosha vitiation to be adopted can be grouped as—*Ghritapana, Rasayana, Avyayama, Ashirasnana, Brahmacharya, Ghrita, Akatthana*<sup>[14]</sup> having "*Samskarasya Anuvartanatva*" when processed with *Vatashamaka* drugs and having *Rasayana Guna* become the best line of treatment for *Karnanada*. Hence, *Ashwagandhadya Ghrita* was selected.

*Karna* being one of the *Adhithana* of *Vata-Dosha*, *Snehana* becomes important to control the localised increased *Vata Dosha*. Hence, *Karnapoorana* also gains importance in the management of the disease. *Karnapoorana* is a method of filling or dropping the medication into the external ear. The use of *Sneha* especially *Taila* helps to subside *Vata Dosha* and clears the *Srotas* of the *Karna*. *Prativishaditaila* having *Vata Shamaka* properties is taken as the drug of choice to control (*Karnanada*) Tinnitus.

Taking the above mentioned facts in mind and to bring out patient from uneasiness, frustration, pain and to make him productive for the society, a sincere effort has been made in the present study entitled "**Clinical study of Prativishadi Tail Karanpurna and Ashwagandhadya Ghrita Paana in the management of Karan Naad w.s.r. to Tinnitus**".

## DRUG REVIEW

The drugs selected for the present study are *Prativishaaditaila* and *Ashwagandhaghrita*. The drug *Prativishaadi taila* is used for *karna purana* while *Ashwagandha ghrita* is given orally to the patients. The properties of the ingredients of above mentioned drugs are as follows:

### Prativishadi Taila Ingredients

Sr. No.	Name of plant	Botanical name	Quantity
1	Prativisha	<i>Aconitum palmatum D. Don.</i>	1 part
2	Hingu	<i>Ferula narthex Boiss.</i>	
3	Mishreya	<i>Foeniculum vulgare Mill.</i>	
4	Twak	<i>Cinnamomum zeylanicum Breyn.</i>	
5	Maricha	<i>Piper nigrum Linn.</i>	
6	Swarjikshara	<i>Potassium salt</i>	
7	Til Taila	<i>Sesamum indicum Linn</i>	4 part
8	Shukta	Vinegar	16 part

### Method of preparation

This process involves two steps. Firstly Murchhna of Tiltaila is carried out with the drugs mentioned in table below followed by Sneha Paaka of the Tiltaila along with kalka (Prativisha, Hingu, Mishreya, Twak, Maricha and Swarjikshara) and Shukta until the appearance of Lakshanas of Samyakasneha siddhi.

### Ashwagandhadya Ghrita

अष्वगंधाकशाये च कल्के क्षीरचतुर्गुणम्।  
घृतपक्वन्तुवातघ्नं वृश्यं मांसविवर्द्धनम्।

(च.द. वातव्याधि 22/93)

### i. Ingredients

Sr. No.	Name of plant	Botanical name	Family	Qty.
1.	Ashwagandhachurna (Kalkartha)	<i>Withaniasomnifera (Linn.) Dunal</i>	<i>Solanaceae</i>	1 part
2.	Ashwagandhakshaya			16 part
3.	Godugdha			16 part
4.	Goghrita			4 part

### Method of preparation

Murchhna of Goghrita is performed to eliminate the aamdosha from ghrita. In this process ghratapaka is performed along with following drugs:

Sr. No.	Name of plant	Botanical name	Family	Parts used	Qty.
1.	Haritaki	<i>Terminalia chebula Retz.</i>	<i>Combretaceae</i>	Phala	1/15 <sup>th</sup> Part each
2.	Bibhitaki	<i>Terminalia bellirica Roxb.</i>	<i>Combretaceae</i>	Phala	
3.	Amalaki	<i>Emblica officinalis Gaertn.</i>	<i>Euphorbiaceae</i>	Phala	
4.	Haridra	<i>Curcuma longa Linn.</i>	<i>Zingiberaceae</i>	Kanda	
5.	Nagarmotha	<i>Cyperus rotundus Linn.</i>	<i>Cyperaceae</i>	Moola	
6.	Matulunga	<i>Citrus medica Linn.</i>	<i>Rutaceae</i>	Phala	
7.	Goghrita				1 part
8.	Water				1 part

Ashwagandhachurna is prepared and mixed with water to prepare kalka. This kalka is added to Murchhita Goghrita and Godugdha and paka is carried out on mandagni. Meanwhile kshaya of Ashwagandha is prepared with which paka of ghrita is done again. After that kalka is again added along with Godugdha and paka of ghrita is done along with water.

### CLINICAL STUDY AIMS AND OBJECTIVES

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

1. A conceptual study of *Karnanada* - Tinnitus.
2. To evaluate the efficacy of trial drugs on *Karnanada* – Tinnitus

### MATERIALS AND METHODS

The patients suffering from *Karnanada* -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 signs and symptoms of *Karnanada* - tinnitus described as per Ayurvedic and modern literature.

### Criteria for exclusion

1. Patients suffering from any chronic debilitating diseases like Diabetes mellitus, Hypertension, Koch's etc. and with other ear pathologies.
2. Cases which required surgical intervention.

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

- 1. Proforma:** A special proforma was prepared to maintain the records of the entire observations regarding the disease.
- 2. Investigation:** The following laboratory investigations were carried out to assess the condition and to exclude any other pathologies of the patients.
  - (a) Haematology: Hb%, TC, DC, ESR.
  - (b) Otoscopy.
  - (c) Tuning fork test.
  - (d) Audiometry.

### Grouping & Posology

All the selected patients fulfilling the criteria were randomly divided into three groups (10 patients in each group):-

Group I -*Ashwagandhadhyaghrita* (orally).

Group II -*Karan purna* with *Prativishadi taila*.

Group III -*Karan purna* with *Prativishadi taila* and *Ashwagandhadya ghrita* (orally).

**Prativishadi taila** -for karan purna

Dose - 2 ml each ear  
Time - Twice a day  
Duration - 100 matra uchharan kala

**Ashwagandhya ghrita** - Orally

Dose - 10 gm twice a day  
Anupana - Sukhoshna dugdha.  
1 month

### Duration of trial

#### Follow up

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

### Criteria for assessment

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

### A. Tinnitus Severity Index Questionnaire.

Sr. No.	Does your tinnitus	Never (0)	Rarely (1)	Sometimes (2)	Usually (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 setting					
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  
Severe - 28 – 36

### 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 signs or symptoms.  
**1:** Presence of signs or symptoms in mild degree.  
**2:** Presence of signs or symptoms in moderate degree.  
**3:** Presence of signs or symptoms in severe degree.

**The effect of the therapy was assessed as below.**

**Cured:** 100% relief in subjective symptoms.

**Marked relief:** More than 75% in subjective symptoms.

**Moderate relief:** 50-75% in subjective symptoms.

**Slight relief:** 25-49% in subjective symptoms.

**No relief:** Less than 25% in subjective symptoms.

### Statistical Analysis

The information gathered regarding demographic data is shown in percentage. Student paired 'T' test was carried out at  $p > 0.05$ ,  $p < 0.05$  and  $p < 0.001$ .

The results were considered significant or insignificant depending upon the value of p. Highly significant-  $p < 0.001$ , Moderately significant-  $0.01 < p > 0.001$ , Significant-  $p < 0.05$ , Insignificant-  $p > 0.05$ .

### Consent of Patient

All the patients selected for trial were explained the nature of the study and their written consent was obtained on the proforma before including them in the clinical study.

**Clinical data as below**

The total number of patients registered in the present study were 30, out of which 30 completed the treatment. Amongst them, total 10 patients were registered in each one of the three groups.

A total of 30 patients were registered for the present clinical study from the outpatient department of *Shalaky* of Rajiv Gandhi Govt. Post Graduate Ayurvedic College and Hospital, Paprola. Patients were thoroughly assessed on various subjective parameters after every 10 days till the completion of trial i.e. 30 days. The effect of Trial drugs (ashwagandhadya ghrita and prativishadi taila) on various signs and symptoms of *karnanada* of 30 patients is as follows.

**Effects of the Therapy****Effect of Ashwagandhadya ghrita paana on Symptoms and Signs of Karnanada in Trial Group-I.**

S. No	Criteria	n	Mean score		Difference	%age relief	± SD	± SE	t	p
			BT	AT						
1.	<i>TSIQ</i>	10	20.7	13	7.7	37.19	3.52	1.11	6.89	<0.001
2.	<i>Hearing loss</i>	3	1	.66	.34	34	.57	.33	1	>0.05

**Effect of Prativishadi taila karnapuram on Symptoms and Signs of Karnanada in Trial Group-II.**

Sr. No	Criteria	n	Mean score		Difference	%age relief	± SD	± SE	t	p
			BT	AT						
1.	<i>TSIQ</i>	10	15.9	11.2	4.7	29.55	1.49	0.47	9.94	<0.001
2.	<i>Hearing loss</i>	2	1.00	0.5	0.5	50.00	.70	0.50	1	>0.05

**Effect of Ashwagandhadya ghrita paana and Prativishadi taila karnapuram on Symptoms and Signs of Karnanada in Trial Group-III.**

S. No	Criteria	n	Mean score		Difference	%age relief	± SD	± SE	t	p
			BT	AT						
1.	<i>TSIQ</i>	10	17.3	9.8	7.5	43.35	2.95	0.93	8.03	<0.001
2.	<i>Hearing loss</i>	4	2.00	1.25	0.75	37.50	.50	0.25	3	>0.05

**1. Effect of Therapy on *TSIQ***

In Group-I (patients treated with Ashwagandhadya ghrita paan, the mean score of *TSIQ*, before treatment was 20.7 and after treatment it came down to 13 giving 37.19% relief which was highly significant statistically ( $p < 0.001$ ).

In Group-II (patients treated with *Prativishadi taila*), the mean score of *TSIQ*, before treatment was 15.9 and after treatment it came down to 11.2. The percentage relief was 29.55% and was highly significant statistically ( $p < 0.001$ ).

In Group-III (patients treated with Ashwagandhadya ghrita and *Prativishadi taila*), the mean score of *TSIQ*, before treatment was 17.3 and after treatment it came down to 9.8. The percentage relief was 43.35% and was moderately significant statistically ( $p < 0.001$ ).

**2. Effect of Therapy on Hearing loss**

In Group-I (patients treated with Ashwagandhadya ghrita, the mean score of *Hearing loss*, before treatment was 1 which it came down to .66 after treatment, giving 34.00% relief which was statistically insignificant ( $p > 0.05$ ).

In Group-II (patients treated with *Prativishadi taila*), the mean score of *Hearing loss*, before treatment was 1.00 and after treatment it came down to 0.5, the percentage relief was 50.00% and was insignificant statistically ( $p > 0.05$ ).

In Group-III (patients treated with Ashwagandhadya ghrita and *Prativishadi taila*), the mean score of *Hearing loss*, before treatment was 2.00 and after treatment it came down to 1.25, the percentage relief was 37.50% and was insignificant statistically ( $p > 0.05$ ).

**Comparative Evaluation of Trial Drugs****Effect of therapy on subjective symptoms of trial group I & II.**

N		Clinical Features	%age Relief		%age relief difference	't'	p	Re-Marks
Gr.-I	Gr.-II		Gr.-I	Gr.-II				
10	10	<i>TSIQ</i>	37.19	29.55	7.64	1.09	>0.05	N.S
3	2	Hearing loss	34	50	16	1	>0.05	N.S

1. **TSIQ:** 37.19% relief was observed in TSIQ in the patients of group-I, while in patients of group -II 29.55% relief was observed, the intergroup difference was insignificant statistically ( $p>0.05$ ).
2. **Hearing loss:** Relief in hearing loss was 34.00% in group -I and 50.00% in group-II. The intergroup difference was insignificant statistically ( $p>0.05$ ).

#### Effect of therapy on subjective symptoms of trial group II & III.

N		Clinical Features	%age Relief		%age relief difference	't'	p	Re-Marks
Gr.II	Gr.-III		Gr.- II	Gr.-III				
10	10	TSIQ	29.55	43.35	13.8	0.78	>0.05	N.S
2	4	Hearing loss	50	37.50	12.50	3	>0.05	N.S

1. **TSIQ:** 29.55% relief was observed in TSIQ in the patients of group-II, while in patients of group -III 43.35% relief was observed, the intergroup difference was insignificant statistically ( $p>0.05$ ).
2. **Hearing loss:** Relief in hearing loss was 50.00% in group -II and 37.50% in group-III. The intergroup difference was insignificant statistically ( $p>0.05$ ).

#### Effect of therapy on subjective symptoms of trial group I & III.

N		Clinical Features	%age Relief		%age relief difference	't'	p	Re-Marks
Gr.-I	Gr.-III		Gr.- I	Gr.-III				
10	10	TSIQ	37.19	43.35	6.16	1.96	>0.05	N.S
3	4	Hearing loss	34	37.50	3.50	3	>0.05	N.S

1. **TSIQ:** 37.19% relief was observed in TSIQ in the patients of group-I, while in patients of group -III 43.35% relief was observed, the intergroup difference was insignificant statistically ( $p>0.05$ ).
2. **Hearing loss:** Relief in hearing loss was 34.00% in group -I and 37.50% in group-III The intergroup difference was insignificant statistically ( $p>0.05$ ).

#### Intergroup (Group I vs Group II vs Group III) comparison over TSIQ and Hearing loss.

N			symptoms	%age Relief			'F'	p		Re-Marks	
Gr.I	Gr.II	Gr.III		Gr. I	Gr. II	Gr.III					
10	10	10	TSIQ	37.19	29.55	43.55	BT	2.64	0.08	>0.05	NS
							AT	1.80	0.18	>0.05	N S
10	10	10	Hearing loss	34.00	50.00	37.50	BT	1.824	0.181	>0.05	NS
							AT	1.671	0.207	>0.05	NS

1. **TSIQ:** 37.19% relief was observed in TSIQ in the patients of group-I, and in patients of group -II 29.55% relief was observed, while in patients of group-III 43.55% relief was observed. The intergroup difference was insignificant statistically ( $p>0.05$ ).
2. **Hearing loss:** Relief in hearing loss was 34.00% in group -I and 50.00% in group-II while in group III it was 37.50%, The intergroup difference was insignificant statistically ( $p>0.05$ ).

#### Over All Effect of Therapy on Tsiq

Sr. No.	Assessment	Group I		Group II		Group III	
		No.of patients	%age	No.of patients	%age	No. of patients	%age
1.	Cured	0	0	0	0	0	0
2.	Markedly Improved	0	0	0	0	0	0
3.	Moderately Improved	2	20	1	10	5	50
4.	Mild Improved	7	70	7	70	5	50
5.	Unimproved	1	10	2	20	0	0

## DISCUSSION

**Karnanada is described in all Samhita and Sangraha Grantha as a pure Vata Vyadhi.**

“अब्दवाहि सिरासंस्थे शृणोति पवने मुहुः।  
नदान् अकस्माद् विविधान् कर्णनादं वदन्ति तम्। ; 1799

The vitiated *Vayu* gets lodged in the *Shabdavaha Shrotas*, thereby causing different types of sounds in the ear called as *Karnanada*.

यदा तु नाडिषु विमार्गमागतः स एव षडभिवहासु तिष्ठति।  
शृणोति षडान् विविधांस्तदा नरः प्रणादमेनं कथयन्ति चामयम्॥  
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The vitiated *Vata dosha* entering and getting lodged into *Shabdavaha Shrotas* produces different types of sounds like *Bheri, Mrudanga, Shankha* etc. in the ears is known as *Karnanada*

- ❖ *Karnanada* is termed as tinnitus in modern medical literature: ringing in the ear causing great distress and emotional handicap. Tinnitus can lead to something more than a nuisance to the patient.
- ❖ Tinnitus is one of the most common and most prevalent ailments which we come across in our daily medical practice.
- ❖ It is not a disease itself; it is a symptom of many underlying conditions such as age related hearing loss, ear injury or a circulatory system disorder.
- ❖ Tinnitus can be compared with *Karna-Nada* in *Ayurveda*. In the present day as the incidence of tinnitus is increasing, so it is necessary to find a solution for the same.
- ❖ As per modern science tinnitus is difficult to diagnose and treat, and even if its etiological factor has been treated problem remains as it is.

Low dose of tranquilizers, relaxation, biofeedback, hearing aid and masker in one unit are used to reduce tinnitus. But all these give temporary relief and the recurrence rate is high. What so ever treatment mentioned for tinnitus in *Ayurveda* is economical and free from side effects compared to the present synthetic preparations which have the potential to cause side effects.

*Vata* is the dominant pathological factor in the disease of *Karna-Nada*.

- The treatment in *Ayurveda* for four diseases – *Karnashoola, Pranada, Karnakshweda, & Badhirya* are similar (*Su.Ut.21/4*).
- The treatment regimen is *Ghritapana, Rasayana, Avyayama, Ashirasnana, Brahmacharya, Akatthana*. (*Su.Utt.21/3*)
- *Ghrita* having “*Samskarsya Anuvartanatva*” (*Cha.Su.13/13*) when processed with *Vatashamaka* drugs and having *Rasayana Guna* becomes the best line of treatment for *Karnanada*. Hence *Ashwagandhadya Ghrita* was selected.

- *Karna* is being one of the *Adhithana* of *Vata-Dosha* (*A.H.12/1*), *Snehana* becomes important to control the localised increased *Vata Dosha*. Hence, *Karnapoorana* also gains importance in the management of the disease. The use of *Sneha* especially *Taila (Prativishadi tail)* helps to subside *Vata Dosha* and clears the *Srotas* of the *Karna*.

**Probable Mode of Action of the Drug**

The pharmaco-dynamics of the drug is dependent on its physio-chemical properties, which include *rasa, guna, virya, vipaka* and *prabhava*. The mode of action of the therapy can be inferred through the bestowed by the therapy on the exhibited symptomatology. *Karnanada* is a *Madhyama marga gata Vatavyadhi* 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*.

*Prativishadi taila* is used for *bahya snehana* in form of *karnapoorana*. *Prativishadi taila* mainly contains *ushna virya* drugs and *til taila* is its main ingredient which is considered best for treatment of *vata*. As *Acharya Charaka* has advocated the importance of *taila* in treatment of *vata dosha* as:

न तैलदानात् परमस्ति किञ्चिद्रव्यं विषेण समीरणार्ते ।। (च.सं.सि.1/25)

*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. (*Vaidya V.M.Gogte : Ayurvedic Pharmacology And Therapeutic Uses of Medicinal Plants, Part II*)

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.

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*.

**Prativisha:** having *Tridoshashamaka* property and *Guru guna, Ushan virya*, **Hingu:** having *snigdha guna, Ushan virya* with *Vatakaphashamaka* property, **Mishreya:** Analgesic, alleviates swelling, hence its oil is put in ear in earache (*V.M.Gogte*), **Twaka:** Predominant in *Ushan virya* with *madhur rasa* and *Vatashamaka*, **Shukta:** *Amla rasa, Amala vipaka* and *Ushana virya*. Above mentioned properties of these ingredients of *Prativishadi Taila*

makes it potent in alleviating Vata dosha which is responsible for Karanana.

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. Madura rasa alleviates vata dosha and nourishes different dhatus thereby reducing the symptoms of vata kshya.

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

**Ghrita:** 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 Ashwagandhadya Ghrita was selected. *Ghrita is vata pittashamaka, Balya, Agnivaridhaka, 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 *Ashwagandha* is conceivd 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, 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 Ashwagandhadya ghrita helps in lowering down the degenerative changes occurring at

cellular level and empowering the function of sensory organs (may enhances the normal hearing).

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