



ORIGINAL RESEARCH ARTICLE

A CLINICAL EVALUATION OF *ERANDADI TAILA NASYA* AND *KARNAPURANA* AND *SARSHAPA TAILA KARNAPURANA* IN THE MANAGEMENT OF *KARNA NADA* W.S.R. TO TINNITUS

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**ABSTRACT:**

**Background:** Tinnitus is ringing sound or noise in the ear or head. The characteristic feature is that the origin of this sound is within the patient. Tinnitus is more annoying in quiet surroundings, particularly at night, when the masking effect of ambient noise from the environments lost. Epidemiologic studies have consistently reported that tinnitus prevalence in adults range from about 10 to 15 percent of the population worldwide.

**Objectives:** 1. To evaluate the efficacy of *Erandadi Taila Nasya* and *Karnapurana* in the patients of *Karna Nada*- Tinnitus. 2. To evaluate the efficacy of *Erandadi Taila Nasya* and *Sarshapa Taila Karnapurana* in the patients of *Karna Nada*- Tinnitus.

**Material and Methods:** In present study 32 patients of *Karna Nada* (Tinnitus) were selected and divided into two equal groups of 16 patients each. In group- I, patients were advised *Erandadi Taila Nasya* and *Karnapurana* and in group- II, patients were advised *Erandadi Taila Nasya* and *Sarshapa Taila Karnapurana*. Data obtained was statistically analyzed. **Results:** Group- II was found to be providing better relief as compared to group- I. **Conclusion:** There is a minute difference in percentage of relief in 2 groups under consideration. So no concluding statement can be given until the same trial is carried out on large sample size.

**Key Words:** *Karna Nada*, Tinnitus, *Erandadi Taila*, *Nasya*, *Sarshapa Taila*, *Karnapurana*.

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## INTRODUCTION

Epidemiological studies demonstrated that 15-20% of the adult populations experience some form of tinnitus and one out of five affected patient's claims to be emotionally affected<sup>[1]</sup>. Tinnitus is considered to be the third worst symptom for humans, surpassed only by intense and intractable pain and dizziness<sup>[2]</sup>.

*Acharya Sushruta* says when *Vayu* covered with *Doshas* taking faulty passage get located in sound carrying channels, then the patient perceives various types of sound; this disease is known as *Pranada* or *Karna Nada*<sup>[3]</sup>. This disease can be correlated to tinnitus on the basis of sign and symptoms. Tinnitus is ringing sound or noise in the ear or head. The characteristic feature is that the origin of this sound is within the patient. Usually, it is unilateral but may also affect both ears. It may vary in pitch and loudness<sup>[4]</sup>.

In modern science there is no effective treatment for this disease and incidences of tinnitus are increasing day by day. Hence this study is planned to explore an easily available and cost effective treatment without any adverse effects.

As *Nasya* is an important procedure advocated in all *Urdhwa Jatrugata Vikaras*, hence the same has been considered. *Erandadi Taila* is selected for *Nasya* which is

an important formulation having *Vatashamaka* properties<sup>[5]</sup>.

*Karnapurana* is an important procedure advocated for all *Karna Rogas*. *Karna* being one of the *Adhithana* of *Vata Dosh*, *Snehana* becomes important to control the localised increased *Vata Dosh*. Hence, *Karnapurana* also gains importance in the management of the disease. *Sarshapa Taila Karnapurana* is highly recommended by all *Acharyas* in *Karna Nada*<sup>[6]</sup>.

## AIMS AND OBJECTIVES

- To evaluate the efficacy of *Erandadi Taila Nasya* and *Karnapurana* in the patients of *Karna Nada*- Tinnitus.
- To evaluate the efficacy of *Erandadi Taila Nasya* and *Sarshapa Taila Karnapurana* in the patients of *Karna Nada*- Tinnitus.

## MATERIALS AND METHODS

**Study design:** Interventional, randomized clinical trial.

**Study population:** Patients participated in the study taken from in and around Jaipur.

**Sampling:** Simple random sampling technique was followed using lottery method.

**Sample size:** A total of 30 patients of Tinnitus, willingly participating in the study from in and around Jaipur.

**Study setting:** The study was carried out in National Institute of Ayurveda, Jaipur, Rajasthan from March 2016 to February 2017.

Jaipur is a district headquarters with population of about 3046189.

### Formulation of the Drug

Both medicines were manufactured in the pharmacy of National Institute of Ayurveda (GMP certified), Jaipur (Rajasthan).

### Preparations of Drug

*Taila* prepared for this project is made by using the method of *Sneha Kalpana* mentioned in *Sharandhara Samhita*<sup>[7]</sup>.

**Table No. 1: Composition of *Erandadi Taila***<sup>[8]</sup>.

| S. No. | Drug Name         | Botanical Name                                | Part Used                 | Ratio |
|--------|-------------------|---|---------------------------|-------|
| 1.     | <i>Swarasa</i>    | <i>Eranda</i>                                 | <i>Ricinus communis</i>   | 4     |
|        | <i>Dravyas</i>    | <i>Shigru</i>                                 | <i>Moringa oleifera</i>   |       |
|        |                   | <i>Varuna</i>                                 | <i>Crataeva nurvala</i>   |       |
|        |                   | <i>Mulaka</i>                                 | <i>Raphanus sativus</i>   |       |
| 2.     | <i>Kalka</i>      | <i>Yasthimadhu</i>                            | <i>Glycyrrhiza glabra</i> | 1/4   |
|        | <i>Dravyas</i>    | <i>Kshirakakoli</i><br>( <i>Ashwagandha</i> ) | <i>Withania somnifera</i> |       |
| 3.     | <i>Tila Taila</i> |   |                           | 1     |
| 4.     | <i>Go-Dugdha</i>  |   |                           | 8     |

*Swarasa* of all drugs was prepared and then *Swarasa*, *Kalka*, *Go-Dugdha* and *Taila* mixed and boiled till *Samyaka Snehana Lakshanas* occur as noted in texts.

Due to unavailability of *Kshirakakoli*, *Ashwagandha* was taken as *Pratinidhi Dravya*<sup>[9]</sup>.

**Table No. 2: *Sarshapa Taila***<sup>[10]</sup>.

| S. No. | Drug            | Botanical Name             | Part Used                 |
|--------|-----------------|----------------------------|---------------------------|
| 1      | <i>Sarshapa</i> | <i>Brassica campestris</i> | Oil (obtained from seeds) |

### Inclusion Criteria

- Patients presenting with symptoms of *Karna Nada* irrespective of sex, caste and religion.

- Patients in the age group of 20 - 80 years with intact and normal tympanic membrane.

### Exclusion criteria

- Congenital deformity.

- Patient of Otosclerosis and fluid in the middle ear.
- Blockage due to stenosis of external auditory canal/wax.
- Pregnant, immuno compromised patients.
- Tinnitus due to non otologic factors (Diabetes mellitus, Hypertension, Thyroid disease etc) and glomus tumour, aneurysm of carotid artery, palatal myoclonus and tumour of auditory nerve.

### Grouping of patients

In the present study 32 clinically diagnosed patients of *Karna Nada* (Tinnitus) were selected and randomly divided into two groups (Group-I - 16 patients, Group-II - 16 patients) out of these 32 patients 30 patients completed the trial.

Group I- 16 patients of *Karna Nada* were given *Nasya* and *Karnapurana* with *Erandadi Taila*.

Group II- 16 patients of *Karna Nada* were *Erandadi Taila Nasya* and *Sarshapa Taila Karnapurana*.

**Duration of Trial:** 30 days

**Follow up:** All the patients were followed up once a two week for a period of one month.

### CRITERIA OF ASSESSMENT

Both subjective and objective parameters were employed for the assessment of the effect of the treatment.

#### Subjective criteria

The effect of treatment was assessed by asking following questionnaire form the patients<sup>[11]</sup>.

**Table No. 3 questionnaire for assessment of effect of treatment**

| S. 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 you uncomfortable to be in a quiet room or setting |           |            |               |             |            |
| 4.     | Still make you difficult to concentrate                       |           |            |               |             |            |
| 5.     | Interfere with your required activities (work,                |           |            |               |             |            |

|    |  |  |  |  |  |  |
|----|--|--|--|--|--|--|
|    | home, care or other responsibilities)                                      |  |  |  |  |  |
| 6. | Interfere with your social activities/ other things you do in leisure time |  |  |  |  |  |
| 7. | Does your tinnitus still interfere with sleep                              |  |  |  |  |  |

**Objective criteria**

measured.

**Hearing loss**

**Grade**

**Statistical analysis**

0 – 25 db

0

The data obtained was statistically

25 – 40 db

1

analysed.

40 – 60 db

2

**OBSERVATION AND RESULTS**

> 60 db

3

Total 32 patients were registered in

**Laboratory criteria**

clinical study; amongst them 30 patients

- It includes Hb%, FBS/RBS.

completed the treatment and 02 patients

- Blood pressure of all the patients was

discontinued the treatment.

**Table No. 4: Effect of therapy on in 15 patients of *Karna Nada* (Tinnitus) and *Badhirya* (Hearing Loss) in group-I.**

| S. No. | Symp toms         | Mean |      | Dif. | % of Change | SD   | SE   | W     | P        | Results |
|--------|-------------------|------|------|------|-------------|------|------|-------|----------|---------|
|        |                   | BT   | AT   |      |             |      |      |       |          |         |
| 1      | <i>Karna Nada</i> | 8.4  | 4.0  | 4.4  | 52.38%      | 1.35 | 0.34 | 120.0 | < 0.0001 | E.S.    |
| 2      | <i>Badhirya</i>   | 1.46 | 1.33 | 0.13 | 22.60%      | 0.48 | 0.12 | 15.0  | 0.062    | N.S.    |

**Table No. 5: Effect of therapy on in 15 patients of *Karna Nada* (Tinnitus) and *Badhirya* (Hearing Loss) in group-II.**

| S. No. | Symp toms | Mean |    | Dif. | % of Change | SD | SE | W | P | Results |
|--------|-----------|------|----|------|-------------|----|----|---|---|---------|
|        |           | BT   | AT |      |             |    |    |   |   |         |
| .      |           |      |    |      |             |    |    |   |   |         |

|   |                   |      |      |      |        |      |      |       |          |      |
|---|-------------------|------|------|------|--------|------|------|-------|----------|------|
| 1 | <i>Karna Nada</i> | 9.93 | 4.53 | 5.40 | 54.38% | 1.59 | 0.41 | 120.0 | < 0.0001 | E.S. |
| 2 | <i>Badhirya</i>   | 1.66 | 1.53 | 0.13 | 7.83%  | 0.35 | 0.09 | 3.0   | 0.50     | N.S. |

**Table No. 6: Comparative effect of *Erandadi Taila* and *Sarshapa Taila* on *Karna Nada* and *Badhirya***

| S. No. | Symptom           | Groups | Mean difference | SD   | SE ± | U'     | P    | Results |
|--------|-------------------|--------|-----------------|------|------|--------|------|---------|
| 1      | <i>Karna Nada</i> | I      | 4.40            | 1.35 | 0.34 | 154.50 | 0.06 | N.S.    |
|        |                   | II     | 5.40            | 1.59 | 0.41 |        |      |         |
| 2      | <i>Badhirya</i>   | I      | 0.13            | 0.48 | 0.12 | 112.50 | 0.97 | N.S.    |
|        |                   | II     | 0.13            | 0.35 | 0.09 |        |      |         |

**TABLE No. 7: Overall effect of therapy on both groups**

| S. No. | Relief             | Group I |        | Group II |        |
|--------|--------------------|---------|--------|----------|--------|
|        |                    | No.     | %      | No.      | %      |
| 1      | Complete Remission | 00      | 00.00% | 00       | 00.00% |
| 2      | Marked relief      | 01      | 06.67% | 00       | 00.00% |
| 3      | Moderate relief    | 05      | 33.33% | 07       | 46.67% |
| 4      | Mild relief        | 09      | 60.00% | 08       | 53.33% |
| 6      | Unchanged          | 00      | 00.00% | 00       | 00.00% |

## DISCUSSION

### *Nasya*

*Acharya Charaka* described that *Nasa* is the only gate way to *Shirah*<sup>[12]</sup>. Before the *Nasya Karma*, *Sthanika Abhyanga* with *Erandadi Taila* and *Swedana* is given which helps in stimulation of vasodilator nerves which are spread out on the superficial surface of face,

this increases the blood circulation to the brain.

### *Karnapurana*

In *Purva Karma*, *Snehana* and *Swedana* were performed. Generally the medicated oil is used in *Karnapurana*, *Taila* is having virtue of *Vata Shamana* but do not aggravate *Kapha*. In this way *Karnapurana* eliminates disease of ear which occurs due to vitiation of *Vata*. In

addition medicine is used luke warm so *Vata* is eliminated by *Ushna Guna* also. These properties do not only have beneficial effect on *Vata* but also removes *Avarana* of *Kapha*. As medicine for *Karnapurana* is made by *Snehapaka* method, all fat soluble active ingredients of drug get enclosed. Fat soluble active principle can be easily assimilated through nerve endings. As a combine effect of all these *Karnapurana* is useful in *Karna Nada*.

#### **Discussion on effect of therapies on chief complaint- *Karna Nada***

Relief in the symptom of sound in the head and ears was observed 52.38% in Group- I ( $p < 0.0001$ ), and 54.38% in Group- II ( $p < 0.0001$ ) and all these values were statistically extremely significant.

However there was insignificant ( $p > 0.05$ ) difference between BT and AT scoring of two groups ( $p = 0.06$ ) even though Group- II showed 2.00% more relief than Group- I.

#### **Discussion on effect of therapies on associated symptom- *Badhira***

Relief in the symptom of hearing loss was observed 22.60% in Group- I ( $p = 0.062$ ), and 7.83% in Group- II ( $p = 0.50$ ) and all these values were statistically insignificant ( $p > 0.05$ ).

However there was insignificant ( $p > 0.05$ ) difference between BT and AT scoring of two groups ( $p = 0.97$ ) even though Group- I showed 14.77% more relief than Group- II.

#### **Overall effect of therapy**

The overall effect was decided on the basis of improvement in Subjective parameters.

#### **In Group- I**

60.00% patients showed mild improvement, 33.33% patients showed moderate improvement and 06.67% patients showed marked improvement. None of the patients found complete remission and unchanged result.

#### **In Group- II**

53.33% patients showed mild improvement and 46.67% patients showed moderate improvement. None of the patients found complete remission, marked relief and unchanged result.

#### **CONCLUSION**

Statistically extremely significant relief ( $p < 0.0001$ ) were found on *Karna Nada* in both groups. On associated symptom *Badhira*, statistically insignificant ( $p > 0.05$ ) improvement was observed. In comparative study over criteria of assessment, statistically insignificant ( $p > 0.05$ ) difference in *Karna Nada* and *Badhira* was observed. The follow up study showed long term sustained relief as evident from 30 days follow up. Prolonged duration of therapy may provide better results and prevent the relapse of the disease. No adverse and toxic effects were observed during and after the trial. In nutshell, *Ayurveda* proved better in the management of the disease in

comparison to modern aspect i.e. *Erandadi Taila Nasya* and *Karnapurana* and *Sarshapa Taila Karnapurana* proved to be a good effective and safe therapy to subside the disease.

## REFERENCES

- 1 Eggermont JJ, Roberts LE. The neuroscience of tinnitus; 2004. 27. 676-82.
- 2 Ana Paula Berberian et al. Benefit of using the prosthesis with sound generators in individuals with tinnitus associated with mild to moderately severe hearing loss. Volume 20, Issue 2: December 2016.
- 3 Shastri Kaviraja Ambikadutta. Sushruta samhita of maharsi sushruta with the Ayurveda tattva sandipika hindi commentary. Uttar tantra, Chapter 20, verse no. 7. Varanasi; Chaukhambha sanskrit sansthan: 2014:115.
- 4 Dhingra PL, Dhingra Shruti. Diseases of ear, nose and throat. 5<sup>th</sup> edition. Elsevier a division of Reed Elsevier India Private Limited; 2010:145.
- 5 Tripathi Brahmanand. Astanga hrdayam of srimadvagbhata with the nirmala hindi commentary. Uttar sthana, Chapter 18, verse no. 23-24. Delhi: Chaukhambha sanskrit pratishthan; 2014:1007.
- 6 Tripathi Brahmanand. Astanga hrdayam of srimadvagbhata with the nirmala hindi commentary. Uttar sthana, Chapter 18, verse no. 26. Delhi: Chaukhambha sanskrit pratishthan; 2014: 1007.
- 7 Srivastava Shailaja. sharngadhar samhita of acharya sharngadhar with the jivanprada hindi commentary. Madhyama khanda, Chapter 9, verse no. 1. Varanasi: chaukhambha orientalia; 2013:215.
- 8 Tripathi Brahmanand. Astanga hrdayam of srimadvagbhata with the nirmala hindi commentary. Uttar sthana, Chapter 18, verse no. 23-24. Delhi: Chaukhambha sanskrit pratishthan; 2014: 1007.
- 9 Pandey GS. Bhavaprakasa nighantu of sri bhavamisra. Chapter 1, verse no. 144. Varanasi: Chaukhambha bharti academy; 2013:60.
- 10 Tripathi Brahmanand. Astanga hrdayam of srimadvagbhata with the nirmala hindi commentary. Uttar sthana, Chapter 18, verse no. 26. Delhi: Chaukhambha sanskrit pratishthan; 2014: 1007.
- 11 Pankaj. Clinical study of prativishadi taila karnapurana and ashwagandhadya ghrita paana in the management of karnanaad w.s.r. to Tinnitus. Paprola: Rajiv Gandhi government ayurvedic collage; 2012.
- 12 Shastri Kashinatha et al. Charaka samhita with the vidhyotini hindi commentary. Siddhi sthana, Chapter 9, verse no. 88. Varanasi: Chaukhambha bharti academy; 2016:1070.

**Cite this article as:** Rakesh Bishnoi, Gulab Chand Pamnani. A clinical evaluation of Erandadi Taila Nasya and Karnapurana and Sarshapa Taila Karnapurana in the management of Karna Nada w.s.r. to Tinnitus, J of Ayurveda and Hol Med (JAHM).2018;6(1):30-37

Source of support: Nil

Conflict of interest: None Declared