Chinnala Ramadevi et al: Management of Karnanada (Tinnitus aura)

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Research Article

MANAGEMENT OF KARNANADA (TINNITUS AURA) WITH BILWA TAILA KARNAPOORANAM AND ASWAGANDHA GHRUTHA INTERNALLY
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ABSTRACT
Nowadays karnanada (Tinnitus Aura) is a commonest problem due to sound pollution, usage of ear phones, excessive talking on mobile phones and modern pub culture etc. Karnanada is a vata predominant disease. Several regimens described about Karnanada in ancient samhitas and other literatures. The effective and more abundant available drugs are Bilwa tailam contains Bilwa majja, Tila taila, aja sheera and gomutra; and Aswagandha ghrutham contains Aswagandha, goksheera and goghrutha. These drugs are having vatahara property, best nerve tonic and anti-oto-toxic property. And Karnapooranam is a simple and safe specific therapy described in Karanarogas. The aim of this study is to evaluate the efficacy of Bilwataila in karnanada and evaluate the efficacy of Karnapurana procedure, to evaluate the efficacy of Rasayana property of Aswagandha ghritam internally in Karnada nada and the objective is to treat karnanada with simple and cost effective medicine. Totally 30 patients were selected from O.P.D. of Shalakya Unit, Government Ayurvedic Hospital, Erragadda, Hyderabad, India. Patients suffering from karnanada are selected at random in the age group of 20-70 years, irrespective of sex, diet, religion, economic status and occupation. The results are very good. In this study short duration of symptoms, karnanada in younger and middle age group patients, affected in unilateral are responded well. Concluding the study, the Bilva taila karna poorana and Aswagandha ghrutham intern are effective in various range of underlying causes: neurological damage, multiple sclerosis, ear infections, oxidative stress, Pratisayam and Avasyayam: common cold and exposure to snow.
Jalakreeda: swimming and play in rainy.
Karna Kanduyana: Keeping matchsticks, pins, or other edged objects in the ear may lead to kshatam in the karnam leading to karnasoola, vrana, vidradhi, putikarnam etc.
Shastramidhyayoga: Avishodhita yantras and shastras which are inserted in the karnam for diagnostic and surgical procedures (for removal of foreign bodies etc.) will cause kshatam and upasargam (infection) in the karnam leading to karnasoola, karna badhirya, pootikarnam etc.
Shabdhamidhyayoga: Hearing loud sounds and high pitched sounds excessively, using mobiles constantly.

INTRODUCTION
Ancient Ayurveda is the science of life. The main object of Ayurveda is to preserve and promote the health of healthy persons as well as to cure the disease. Nowadays Karnanada (Tinnitus Aura) became commonest disease, affecting all age groups. As per Vachaspatyam the word Karnam means Shabdham (Sound). The symptoms mentioned in Karnanadam are they feel like Bheri (cuttle drum), Mrudanga (cymbal), Sankhavath (cell of conch) etc. sounds in the ear. Hearing impairment may be seen associated with Karnanada. Karnanada is a vata predominant disease. There are several regimens regarding Karnanada in various samhitas and other literatures, selected easily and abundantly available drugs are Bilwa tailam (ingredients are Bilwa, Tila taila, aja sheera and gomutra). Aswagandha ghrutham (Ingredients are Murchitha Goghritham, Aswagandha quath, Kalka of Aswagandha and Goksheeram). These drugs are having vatahara property. Karnapooranam is a safe, simple and specific therapy.

Aims and Objectives of the Study

- To evaluate the efficacy of Bilwataila as vatahara in the Karnanada and to evaluate the efficacy of Karnapooranam procedure.
- To evaluate the efficacy of Rasayana property of Aswagandha ghritam internally in Karnada nada.
- The objective is to treat karnanada with simple and cost effective medicine, which has not effective remedy in other medical system.

Nidana (Etiology) of Karna Rogas

- Specific etiological factors for karnanada are not mentioned in classics. They described common etiological factors for all karna rogas. These are

Due to above etiological factors vitiated vata associated with pitta or kapha reached the urdhvanga and settled in karnendriya causes karnanada. Karnanada can be related as tinnitus to some extent. Nowadays Tinnitus is a common problem due to sound pollution, usage of ear phones (prolonged hearing of songs), excessive talking on mobile phones (working at call centers), modern pub culture and trauma to head. Tinnitus is a condition in which patients hears adventurous sounds with or without any specific reason. The sounds are familial monotonous sounds like hissing, roaring, ringing etc. Even today there is no specific remedy for this condition in advance modern medical system.

Tinnitus: From the Latin word tinnitus meaning "ringing" is the perception of sound within the human ear, when no actual sound is present.

Etiology: Tinnitus is not a disease, but a condition result from a wide range of underlying causes: neurological damage, multiple sclerosis, ear infections, oxidative stress,
foreign objects in the ear, nasal allergies that prevent (or induce) fluid drain, wax, most common cause is exposure to loud sounds. Withdrawal from benzodiazepines may cause tinnitus. Tinnitus may be an accompaniment of sensorineural hearing loss or congenital hearing loss, and it observed as a side effect of certain medications like aminoglycoside group of drugs, aspirin and chloroquine phosphate etc. and may also result from an abnormally low level of serotonin activity. It also a classical side effect of quinidine, a Class IA anti-arrhythmic. Over 260 medications have been reported to cause tinnitus as a side effect. In many cases, no underlying physical cause can be identified.

Other Causes are most commonly results from other etiologic disorders-External ear causes, middle ear causes and internal ear causes, prebycusis, Meniere’s disease, ototoxic medications, analgesics, antibiotics, chemo-therapy and antiviral drugs, anti depressants, head injury, temporomandibular joint dysfunction, metabolic disorders, psychiatric disorders, other causes are fibromyalgia, vasculitis etc the same conditions that cause hearing loss. Tinnitus, along with sudden onset hearing loss, may have no obvious external cause. Ototoxic drugs can have subjective tinnitus either secondary to hearing loss or without hearing loss and may increase the damage by exposure to loud noise.

Pathophysiology
One of the possible mechanisms relies on otoacoustic emissions. The inner ear contains thousands of minute inner hair cells with stereocilia which vibrate in response to sound waves, and outer hair cells which convert neural signals into tension on the vibrating basement membrane. The sensing cells are connected with the vibratory cells through a neural feedback loop, whose gain is regulated by the brain. This loop is normally adjusted just below onset of self-oscillation, which gives the ear spectacular sensitivity and selectivity. If something changes, it is easy for the delicate adjustment to cross the barrier of oscillation, and tinnitus results. Exposure to excessive sound kills hair cells, and studies have shown as hair cells are lost, different neurons are activated, activating auditory parts of the brain and giving the perception of sound. Another possible mechanism in tinnitus is damage to the receptor cells.

Idiopathic Tinnitus
This is the most common form of tinnitus. Normally, the reflex pathway from the end organ to the cerebral cortex is through the auditory nerve, cochlear neurons and brainstem and back though the Olivocochlear bundle. This controls the auditory apparatus. Some abnormality in this pathway which may be in the form of increased discharge from the cochlea, demyelination of the nerve fibres, etc. causes the patients to hear adventitious sound. Patients who are tense and psychologically unbalanced are more prone to have tinnitus.

MATERIALS AND METHODS
Totally 30 patients were selected from O.P.D. of Shalakya Unit, Government Ayurvedic Hospital, Erragadda, Hyderabad, India. Patients suffering from karnanada are selected at random in the age group of 20-70 years, irrespective of sex, diet, religion, economic status and occupation.

Inclusion Criteria
Patients are presenting classical features of karnanada were selected. Most of the patients are idiopathic.

Exclusion Criteria
Patients suffering from DM, HTN, endocrinal disorders, Meniere’ syndrome, Tinnitus associated with Deafness and major systemic disorders were excluded.

Investigation: CBP, ESR, PTA (Pure Tone Audimetry).

Dosage and Duration of Trial
Ghrutha panam: 10-30 ml of Aswagandha ghrutham according to body weight and disease severity with lukewarm 200 ml. of cow’s milk- twice a day for 21-40 days\(^8\).

Karna poorana with Bilva Tailam
It is advised for 14 days with gap of 7 days. It is a simple, safe and effective remedy. This procedure consists of three stages. Yogarathakara said, karnapoorna is one of the methods of panchakarma in karna and sioragoras.

Poorva karma (Pre-Operative Procedure)
In this stage- mrdud abhyanga done with medicat oil on the lateral surface of face and post-auricular area and hot fomentation.

Pradhana Karma (Operative Procedure)
In this stage- Bilva taila made into luke warm and filled external auditory canal with lukewarm oil– up to 15-20 minutes.

Paschat Karma (Post-Operative Procedure)
In this stage- removed oil from external auditory canal and again hot fomentation done on the face and post auricular area. During the period of treatment, Patients are strictly advised to avoid the following.

• Heavy exercises
• Use of mobile phones
• Consume of excessive cold water / drinks
• Heavy music sounds.

The results may be grouped as

OBSERVATIONS AND RESULTS
Complete relief: 100 % relief from symptoms
Partial relief:
1. Marked : Up to 75 %;
2. Moderate : 50 % - 75 %;
3. Mild : 25 % - 50 %
4. No relief : Without relief or marginal improvement
Table 1: According to Age

<table>
<thead>
<tr>
<th>Age in years</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-35</td>
<td>15</td>
<td>50 %</td>
</tr>
<tr>
<td>36-50</td>
<td>9</td>
<td>30 %</td>
</tr>
<tr>
<td>51-65</td>
<td>6</td>
<td>20 %</td>
</tr>
</tbody>
</table>

Above table shows that age group 20-35 years is more prone to Karnanada (Tinnitus).

Table 2: According to Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>16</td>
<td>53.33 %</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>46.66 %</td>
</tr>
</tbody>
</table>

From the above table, it is observed that Male patients (53.33 %) are more prone to Karnanada than female patients (46.66 %).

Table 3: According to Economical Status

<table>
<thead>
<tr>
<th>Economic Status</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low income</td>
<td>10</td>
<td>33.33 %</td>
</tr>
<tr>
<td>Middle income</td>
<td>15</td>
<td>50 %</td>
</tr>
<tr>
<td>High income</td>
<td>5</td>
<td>16.66 %</td>
</tr>
</tbody>
</table>

It is observed from the above table that Middle class people (15) are more prone to the disease Tinnitus.

Table 4: According to Duration

<table>
<thead>
<tr>
<th>Duration</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 days</td>
<td>12</td>
<td>40 %</td>
</tr>
<tr>
<td>10-30 days</td>
<td>10</td>
<td>33.33 %</td>
</tr>
<tr>
<td>More than 1 month</td>
<td>8</td>
<td>26.66 %</td>
</tr>
</tbody>
</table>

From the above table, observed that the patients (12) are suffering more since 10 days.

Table 5: According to Side Affected

<table>
<thead>
<tr>
<th>Side affected</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilateral</td>
<td>22</td>
<td>73.33 %</td>
</tr>
<tr>
<td>Bilateral</td>
<td>8</td>
<td>26.66 %</td>
</tr>
</tbody>
</table>

Table 6: Symptom wise results

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variables</th>
<th>Symptoms</th>
<th>No of patients</th>
<th>% of Relief</th>
<th>$\chi^2$</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BT</td>
<td>AT Relieved</td>
<td>Not-relieved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Pitch</td>
<td>Low pitch</td>
<td>21</td>
<td>3</td>
<td>85.71</td>
<td>1.43</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>High pitch</td>
<td>9</td>
<td>3</td>
<td>66.66</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Noise</td>
<td>Continuous</td>
<td>6</td>
<td>2</td>
<td>66.66</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Intermittent</td>
<td>16</td>
<td>4</td>
<td>75</td>
<td>0.170</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Fluctuant</td>
<td>8</td>
<td>2</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Types</td>
<td>Bheri</td>
<td>6</td>
<td>2</td>
<td>66.66</td>
<td>0.170</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Mrudanga</td>
<td>8</td>
<td>2</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Noise</td>
<td>Sankhavath</td>
<td>16</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BT –Before treatment; AT- After treatment

Table 7: Overall Results

<table>
<thead>
<tr>
<th>Result</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Relief</td>
<td>20</td>
<td>66.66 %</td>
</tr>
<tr>
<td>Partial Relief</td>
<td>6</td>
<td>20 %</td>
</tr>
<tr>
<td>No Relief</td>
<td>4</td>
<td>13.33 %</td>
</tr>
</tbody>
</table>

Figure 1: Overall Results
RESULTS
The results are very good. In this study short duration of symptoms, karnanada in younger and middle age group patients, affected in unilateral are responded well. Above 45 years of patients are not so responded well. In this study, subjective parameters are taken only. Numerical data is not taken. For this \( \chi^2 \) (chi square) is applicable. For numerical data, t test is applicable. So \( \chi^2 \) and p values are mentioned.

DISCUSSION
Bilwadi taila is having vatahara property and anti ototoxic property in nature. It is mentioned all classical texts of Ayurveda like Sarangadhara Samhita and others for Karnapoorana in Karnarogas. It has told as a specific procedure in karna, kanta and sirorogas. Aswagandha ghrutha is best vata hara property and acts as Rasayana. Due to its rasayana property patients are responded well. It is a best nervine tonic.

CONCLUSION
Concluding the study, the karna poorana with Bilva taila and Aswagandha ghrutham internal medicine in karnanada w.s.r. to tinnitus (idiopathic) are more effective. So both drugs should advise in the treatment of karnanada. (karna poorana as well as Oral medication). Nidana parivarjana is also plays an important role for the management of karnanada. In addition to these drugs, other vatahara (Herbomineral drugs) therapy is advised to some patients.

REFERENCES

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