A CASE STUDY: AYURVEDIC MANAGEMENT OF SENSORINEURAL HEARING LOSS- BADHIRYA

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ABSTRACT

Sensorineural hearing loss (SNHL) is a type of hearing loss in which root cause lies in the inner ear. SNHL can be devided into Peripheral and Central (auditory pathway or cortex). It can be congenital or acquired. Congenital: due to anomalies of inner ear or due to pre or perinatal factors. It accounts for about 90% of reported hearing loss. Till now there is no recommended treatment for it. In Ayurveda hearing loss can be correlated to Badhirya (hearing loss) wherein many therapeutic procedures, formulations have been told by our Acharyas for the successful management of Badhirya (hearing loss). This case study shows the effectiveness of the ayurvedic treatment which brought good improvement in the hearing capacity of a 51yr old male patient suffering from the Moderate to Severe SNHL since 3 years. He was made to undergo both Ayurvedic procedures and medications. The names of the ayurvedic procedures adopted are Nasya (nasal drops) with Anutaila, karnapurana with Bilwa taila, Ksheerabala Taila Shiropichu, Sarivadi vati, Ashwagandha churna and Ksheerabala Taila101 Internally for 1 month. The intervention resulted into a good improvement in hearing.

KEYWORDS: Badhirya, Nasya, Karnapurana, Sensorineural Hearing Loss.

INTRODUCTION

Hearing ability is of utmost importance for the opment of speech and language skills in a person. Sensory neural hearing loss or SNHL happens after inner ear damage. Problems with the nerve pathways from your inner ear to your brain can also cause SNHL. Soft sounds may be hard to hear. Even louder sounds may be unclear or may sound muffled. This is the most common type of permanent hearing loss. Most of the time, medicine or surgery cannot fix
SNHL. Hearing aids may help you hear. SNHL can range from mild hearing loss to complete hearing loss depending on the degree of damage.

1. Mild hearing loss: A loss of hearing between 26 to 40 decibels.
3. Severe hearing loss: A loss of hearing more than 71 decibels.

SNHL isn’t a life-threatening condition, but it can interfere with your ability to communicate if not properly managed. There are several pathophysiological mechanisms by which damage to the inner ear results in SNHL, such as trauma, noise trauma, ototoxicity, diabetes, autoimmune pathology, congenital conditions, and intake of Aminoglycoside antibiotics. It is characterized by symptoms such as sudden or steady loss of hearing, ear fullness, tinnitus.

Over 5% of the world’s population or 430 million people require rehabilitation to address their disabling hearing loss (432 million adults and 34 million children). It is estimated that by 2050 over 700 million people or one in every ten people will have disabling hearing loss. Thus an Ayurvedic treatment protocol which is convenient, economically viable and effective. We can correlate this condition with Badhirya, which is caused by Sangatva of Shabdavaha srotas (obstruction of sound wave carrying channel) by Kapha and Vata Dosha’s, which is aggravated by the unhealthy habits and lifestyle of the individual. It is treated by Vata hara chikitsa and in later stages by rejuvenating Rasayana therapies. So here we have tried to implement an Ayurvedic diet and treatment regimen, by which there can be an improvement in the diseased condition.

MATERIALS AND METHODS

**History of present Illness:** Patient was apparently normal before 3 years, gradually he started experiencing the ringing type of sound in both the ears along with reduced hearing. For which he consulted ENT Physician. There he was advised to use hearing aid, but he was not willing to use hearing aid, so he consulted Shalakya Tantra OPD (No-34375/5) SJIM Bangalore.

**History of Past Illness:** Not a known case of DM/HTN.

**Family History:** Nothing Specific.

**Personal History**

Appetite: Good
Sleep: Sound
Bowel: Twice a day
Micturition: 5-6 times a day
Diet: Mixed

Examination

Table no. 1: (Ear Examination).

<table>
<thead>
<tr>
<th>SL no</th>
<th>EXAMINATION</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Otoscopy</td>
<td>1)EAC: B/L clear, 2) TM: B/L visible and Intact</td>
</tr>
<tr>
<td>2</td>
<td>Rinne’s test</td>
<td>Positive, AC&gt;BC</td>
</tr>
<tr>
<td>3</td>
<td>Weber’s test</td>
<td>No laterlization</td>
</tr>
<tr>
<td>4</td>
<td>PTA</td>
<td>B/L Moderate to severe SNHL PTA: RT Ear- 42.5 dB HL, LT Ear-47.5 dB HL</td>
</tr>
<tr>
<td>5</td>
<td>Tinnitus</td>
<td>Subjective</td>
</tr>
</tbody>
</table>

Ashtavidha Pareeksha

Nadi- Vatapittaja
Mala- Prakruta
Mutra- Prakruta
Jihva- Prakruta
Shabda- Vikruta
Sparsha-Prakruta
Drik-Prakrita
Akrithi- Madyama

Dashavidha Pareeksha:
Prakriti-Vatapittaja
Vikriti- Vata
Sara- Madhyama
Samhana-Madhyama
Satmya-Madhyama
Satva- Madhyama
Ahara shakti- Madyama
Vyayama shakti- Madyama
Vaya- Madyama
Pramana- Madyama
General Examination
Respiratory system: Normal vesicular breathing sound heard, No added sounds
CVS: S1 S2 heard no added sounds
Per abdomen: on palpitation nothing specific.
BP- 120/90 mm/hg
Pulse rate: 69/ min
Weight- 57kg
Height: 165cm

Investigations

![Figure 1: Pure Tone Audiometry.](image)

**Diagnosis:** Badhirya, Moderately Severe Sensory Neural Hearing Loss.

**Treatment given**

**Table no. 2: (Treatment given).**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Treatment</th>
<th>Medicines</th>
<th>Mode of administration</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Marsha Nasya</td>
<td>Anutaila</td>
<td>10-10 drops each nostrils</td>
<td>7 days</td>
</tr>
<tr>
<td>2</td>
<td>Karna poorana</td>
<td>Bilwadi taila</td>
<td>QS-to both the ears</td>
<td>7 days</td>
</tr>
<tr>
<td>3</td>
<td>Shiropichu</td>
<td>Ksheerabala</td>
<td>QS-once a day for 1 hour</td>
<td>30 days</td>
</tr>
</tbody>
</table>
RESULTS
After 1 month of Ayurvedic treatment and strict lifestyle, patient had subjective improvement and tinnitus was reduced to mild. PTA in Right ear 42.5dBHL, and in left ear it has come to 42.5 dBHL from 47.5 dBHL.

The changes in hearing level

![Figure 2: PTA after treatment(1 month).](image)

DISCUSSION
Sensoneural Hearing Loss(Badhirya) is one of the most common ENT disorder and it is one of the challenging condition of all ENT surgeon’s, the disease look simples but it doesn’t bring satisfactory relief to the patients after repeated visiting to ENT clinic. Thus, the treatment adopted for Badhirya(hearing loss) in modern system of medicine has not been satisfactory. Surgical intervention (cochlea implant) is rare in these cases and performed only
when presented with complications. The “Vata Vyadhi Chikitsa” Siddhanta can be adopted as a management of Badhirya.\(^6\) Besides these, Ayurveda also offers different kind of treatment modality in the management of Badhirya. E.g. Ghritapana(consumption of medicated ghee), Rasayanasevana(rejuvinating drugs), Nasya(nasala drops), Snehana(oleation therapy), Swedana(perspiration therapy) Snehavirechana(pergative therapy), Sirobasti, Karnapurana(filling the ear with medicated oil), Jalaukavacharana(leech therapy) etc.\(^7\) but, Karnapurana and Nasya is most prescribed procedure in the management of Badhirya. Anu Taila Nasya\(^8\) scratches out the Kapha Dosha from Shira and improves the function of indriyas (Karnaindriya) thereby clearing the Srotorodha. Anu Taila was planned which pacifies the aggravated Vata Dosha in head and helps to normalize the function of central nervous system And balancing the circulation of blood in the sense organs including ear also. As Shringataka marma in Shira is the junction of all sense organs like eye, ear, nose and any medicine applied over this area targets the vitiated doshas related to all sense organs and helps in nourishment of nerves connecting to these areas. Karnpurana\(^9\) is one of the basic treatments mentioned in Ayurvedic literature for all Karnarogas. Karnpurana with Bilwadi Taila has the Vatashamaka property. Ksheerabala taila pichu also having vatahara property. Sarivadi Vati\(^10\) removes Srotorodha and does Vatanulomana. It is the best Rasayana Dravya for Shravanendriya Vikara. Ashwagaandha is having vatahara, rasayana property.

**CONCLUSION**

Implementing Ayurvedic treatment along with making changes in lifestyle, such as following Pathya and avoiding Apathya, practicing Yoga has brought an improvement in the deceased state of Sensory neural hearing loss. Thus it is feasible and economically viable and in future more studies should be carried out on the present topic.

**REFERENCES**


