MANAGEMENT OF BADHIRYA – SENSORY NEURAL HEARING LOSS WITH AYURVEDA: A CASE REPORT

Dr. Shravani Gawande*1 and Dr. Gulab Chand Pamnani2

1P.G Scholar, Department of Shalakya Tantra, National Institute of Ayurveda, Jaipur, India.
2Associate Professor, Department of Shalakya Tantra, National Institute of Ayurveda, Jaipur, India.

ABSTRACT
Sensory neural hearing loss occurs when there is a problem in the sensory apparatus – Cochlea (sensory) or in the pathways of conduction of nerve impulses to the brain. SNHL can be peripheral and Central (auditory pathway or cortex). It can be congenital or acquired. Congenital: present at birth, due to anomalies of inner ear or due to pre or perinatal factors. In the present study, a 12 year old female child who came to OPD with complains of Sensory Neural Hearing loss since childhood. Audiometry report showed both ear moderate to severe sensory neural hearing loss. Left ear – Moderate to severe Sensory neural hearing loss. Right ear - Moderate hearing loss. First Ayurveda treatment of sensory neural hearing loss with three sittings of Marsha Nasya with Anu Taila, 3 sittings of Karnapurna from Bilvadi Taila and Sarivadi Vati and Brahmi Vati in the dose of 250 mg thrice a day with milk for 1 month were given in a month and same procedure followed for 4 months. After that his hearing improved showing audiometry findings of moderate hearing in both ears. After four months repeat audiometry was done. Patient also felt better hearing in both ears. Decreased hearing due to sensory neural hearing loss is result of damage of hair cells, which can be managed with the help of Ayurveda treatment - Marsha Nasya, Karnapurna with Rasayana treatment. Hearing loss to school going children is very serious problem affecting their education, skills and social relationship with others. With this study we can cure this type of deafness without any surgical intervention and help them to live their life in a better way.

KEYWORDS: Badhirya, Nasya, Karnapurna, Rasayana, Sensory Neural Hearing Loss.
INTRODUCTION
Hearing ability is of utmost importance for the development of speech and language skills in a child. Earlier it was difficult to detect hearing loss in children. However, with advanced medical science and technology hearing loss in children can be detected at an early stage. Hearing loss is partial or complete inability to receive and interpret sound stimuli in one or both ears.

Hearing loss is categorized into Conductive, Sensorineural and Mixed hearing loss on the basis of pathogenesis. Childhood hearing loss can be a debilitating condition that affects a significant degree of physical, mental and social health. Sensory neural hearing loss is the most common hearing loss in children which accounts for 85% – 90% of childhood hearing loss in India. Increasingly more attention is being focused on mild or slight hearing impairment >20 dB HL including unilateral or bilateral loss that may affect 10 to 15% of school aged children with deterrents effects on school performance and social emotional development.

CAUSES
Congenital hearing loss is a hearing loss that is present since birth. This loss can be because of genetic or non – genetic reasons.

Some of the nongenetic causes can be
- Alcohol or smoking in Pregnancy
- Diabetes in Pregnancy
- Infection in Pregnancy
- Brain and nervous disorders in the baby
- Premature birth
- Low birth weight
- Birth trauma or injuries

The possibility of non-genetic factors causing hearing loss in babies is only 25% however the possibility of babies born with hearing disability at birth due to genetic factors is upto 50%.

Some of the genetic causes can be following
- Autosomal recessive hearing loss constitutes 70% of all genetic hearing loss cases.
Autosomal dominant hearing loss may occur when the defective or abnormal gene from one of the parents with hearing disability may get passed on to the child.

This kind of hearing loss accounts for 15% of genetic hearing loss. Though the above mentioned genetic and nongenetic causes may result in congenital hearing loss but the cause of some of the cases of hearing loss at birth may be difficult to establish.

**EXAMINATION**

Following are some of the test that may be recommended for the babies;

- Audiometry brainstem response
- Central auditory evoked potential
- Otoacoustic emissions
- Middle ear muscles reflex
- Tympanometry
- B.E.R.A
- Audiometry

**CASE PRESENTATION**

A 12 year old female child came in ENT OPD of Shalakya Tantra department in National Institute of Ayurveda hospital, Jaipur with the complaints of decrease hearing in both the ears from childhood on date 24/02/2022.

**Chief Complaints**

Hearing loss bilateral since childhood, Unable to hear the sound present nearby to her.

**Past History**: No any past history found.

**Family History**: No any family history was found.

**Clinical Findings**

**On ear examination**

- Otoscopy
  - **EAC**: B/L Clear
  - **TM**: B/L intact
- **Rinne’s test**: Air conduction > Bone conduction bilateral
- **Weber’s test**: Lateralized to Right ear
• **Audiometry done on** 24/02/2022
• **Right Ear:** Moderate hearing loss
• **Left ear:** Moderate to severe hearing loss.

**GENERAL EXAMINATION**
Weight – 42 KG
Height – 154 cm
Pulse Rate – 72/ min
BP – 120/80 mmHg

**PERSONAL HISTORY**
Diet – vegetarian
Appetite – Good
Bowel – Regular
Micturation – Normal
Sleep – Normal

**LINE OF TREATMENT**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Treatment</th>
<th>Medicine</th>
<th>Mode of Administration</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Marsh Nasya</td>
<td>Anu taila</td>
<td>6-6 drops in both nostrils for 7 days with 3 days interval</td>
<td>3 months</td>
</tr>
<tr>
<td>2.</td>
<td>Karnapurna</td>
<td>Bilvadi Taila</td>
<td>Approx. 24 -26 drops (1ml) for 15 days at home with 3 days interval.</td>
<td>4 months</td>
</tr>
<tr>
<td>3.</td>
<td>Oral Medicine</td>
<td>Sarivadi Vati and Brahmi Vati</td>
<td>1 -1 vati of both 250 mg thrice a day with milk after meal.</td>
<td>4 months</td>
</tr>
</tbody>
</table>

**Pathya – Apathya**

<table>
<thead>
<tr>
<th>Pathya</th>
<th>Apathya</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Avyayama</td>
<td>• Danta Kastha</td>
</tr>
<tr>
<td>• Ashirah Snana</td>
<td>• Sirahsnaana</td>
</tr>
<tr>
<td>• Brahmacharya</td>
<td>• Vyayama</td>
</tr>
<tr>
<td>• Akatthana</td>
<td>• Kanduyana</td>
</tr>
<tr>
<td>• Mansarasa</td>
<td>• Tushaara</td>
</tr>
<tr>
<td>• Sneha Yukta Ahara Samvahana</td>
<td>• Shoka</td>
</tr>
<tr>
<td>• Garbhagruha</td>
<td>• Shrama</td>
</tr>
<tr>
<td>• Mrudu Shaiya</td>
<td>• Ruksha Kashaaya Bhojana</td>
</tr>
<tr>
<td>• Agni Santapa</td>
<td></td>
</tr>
<tr>
<td>• Dugdha</td>
<td></td>
</tr>
<tr>
<td>• Lavana Yukta Bhojana Sukhoshna Parisheka</td>
<td></td>
</tr>
</tbody>
</table>
RESULT

After 4 months of treatment patient got excellent result in Subjective criteria like hearing and speech also. Now she was able to hear from some distance also and was able to pronounce words better from previous. Repeat audiometry was done on 10/06/2022 Which showed Left ear : Moderate hearing loss and Right ear mild to moderate hearing loss.

<table>
<thead>
<tr>
<th>Date</th>
<th>24/02/2022</th>
<th>10/06/2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audiometry</td>
<td>Řt ear: Moderate hearing loss</td>
<td>Rt ear: Mild to moderate hearing loss.</td>
</tr>
<tr>
<td>Report</td>
<td>Lt Ear: Moderate to severe hearing loss</td>
<td>Left ear: Moderate hearing loss.</td>
</tr>
</tbody>
</table>

DISCUSSION

_Badhirya_ (SNHL) is one of the most common ENT disorder and it is one of the challenging problems of all ENT surgeon’s the disease look simple but it doesn’t bring satisfactory relief to the patient after visiting ENT clinic. Thus, the treatment adopted for _Badhirya_ 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 Siddhant_ can be implemented as a management of _Badhirya_.[1] Beside this, Ayurveda also offers different kind of treatment modality in the management of _Badhirya_. Eg: _Ghritapana, Rasayanasevana, Nasya, Snehana, Swedana, Snehavirechana, Sirobasti, Karnapurna, Jalaukavacharana_ etc.[2] But _Nasya_ and _Karnapurna_ is most prescribed procedure in the management of _Badhirya_.

As mentioned earlier as Signs and Symptoms of Hearing loss can be correlated with _Badhirya_ in Ayurveda. _Badhirya_ is due to Vitiation of _Vata_ and _Kapha_ Dosha.[3]

_Anu Taila Nasya_ scratches out the _Kapha Dosha_ from the _Shirah_ and improves the function of _Indriyas_ (KarnaIndriya) thereby clearing the _Srotorodh_. _Anu Taila_ was planned which pacifies the aggrevated _Vata Dosha_ in head and helps to normalize the function of central nervous system by nourishing the nervous system and balancing the circulation of blood in the sense organs including ear also.

As _Shringataka Marma_ in _Shirah_ is the junction of all sense organ like eyes, ear, nose and any medicine applied over this area targets the vitiated doshas related to all sense organs and help in nourishment of nerves connecting to these areas.
Karnapurna is one of the basic treatment mentioned in Ayurvedic literature for all Karnarogas. Karnapurna with Bilvadi Taila has VataShamaka property.

Sarivadi vati removes Srotorodha and does Vatanulomana. Brahmi Vati is best Rasayana Dravya for Shravnendriya Vikara.

During four months of treatment period and follow up period we have not encountered any ADR related to oral treatment, Nasya and Karnapurna in the patient. Patient and her family was very happy that her hearing was improved.

CONCLUSION
Congenital hearing loss is a hearing loss that is present at birth. Childhood hearing loss can be a debilitating condition that affects a significant degree of physical, mental and social health. Anu Taila, Nasya, Bilvadi Taila Karnapurana and Sarivadi Vati and Brahmi Vati orally gives excellent result in Congenital sensory neural hearing loss thus Ayurveda has a variety of medicines and Procedures to treat Badhirya (sensory neural hearing loss). This case study indicates effectiveness of Ayurveda in the management of Badhirya.

BEFORE PIC
AFTER PIC

REFERENCE


