

# Ayurvedic management of *Badhirya*.s.r. to Sensory Neural Hearing Loss - A Single Case Report

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## ABSTRACT

**Introduction:** Sensorineural hearing loss (SNHL) is a type of hearing loss or deafness in which the root cause lies in the inner ear or sensory organ (cochlea and associated structures) or the vestibulocochlear nerve (cranial nerve VIII). According to ancient *Acharyas*, *Badhirya* is caused by the vitiated *Vata Dosh* or *Vata-Kapha Dosh* obstructing the *Shabdavaha Srotas* (pathway of hearing) or *Shabdavaha Sira* (auditory nerve) or by the negligence of *Karnanada* (tinnitus), etc., and gives rise to diminished hearing or incapability of hearing. In *Vataja Badhirya* patient is unable to differentiate the sound. So on the basis of sign and symptom it can be correlated with Sensory neural hearing loss. **Aim:** To evaluate the effect of *Marsha Nasya* with *Anu Taila*, *Karnapurana* with *Bilwadi Taila* and *Sarivadi Vati* (orally) in the management of *Badhirya* (SNHL). **Materials and Methods:** The subject approached *Shalaky Tantra* OPD with complaints like decreased hearing along with trouble in understanding speech since 2 years. *Marsha Nasya* with *Anu Taila*, *Karnapurana* with *Bilwadi Taila*, and *Sarivadi Vati* (orally) were prescribed for the treatment of the mentioned complaints for 6 months. **Discussion:** *Vata Vyadhi Chikitsa Siddhant* can be implemented as the management of *Badhirya*. The disease is *Vata* and *Kapha* predominant. *Karnapurana* and *Nasya* are the most prescribed procedures in the management of *Badhirya*, and thus attempts are made to bring about excellent results. **Results:** This case study indicates the significance of *Ayurvedic* management in *Badhirya*, which was confirmed by subjective improvement and by audiometric findings.

**Key words:** *Badhirya*, *Karnapurana*, *Nasya*, *Rasayana*, *Sensory neural hearing loss*.

## INTRODUCTION

The World Health Organization (WHO) has defined hearing loss as “a person who is not able to hear as well as someone with normal hearing - a hearing threshold of 20 dB or better in both ears.” Sensorineural hearing loss (SNHL) is a type of hearing loss or deafness in which the root cause lies in the inner ear or sensory organ (cochlea and associated structures) or the vestibulocochlear nerve (cranial nerve VIII). SNHL occurs when there is a problem in the sensory apparatus of the cochlea (sensory) or in the pathways of conduction of nerve impulses to the brain. SNHL can be peripheral and central (auditory pathway or cortex).

*Acharya Sushruta* has mentioned 28 types of *Karna Rogas* (diseases of the ear) in *Uttara Tantra* Chapter 20, and *Badhirya* (HL) is one of them. According to *Acharya Sushruta*, vitiated *Vata* and *Kapha Dosh* reside in *Shabdavaha Srotas* and cause *Badhirya*. *Acharya Dalhana* states that not only *Vata Dosh* but also *Rakta*, *Pitta*, and *Kapha Dosh* get involved to cause *Badhirya*. According to *Acharya Vagbhatta*, *Vata* associated with *Kapha* and getting increased or by neglect of *Karnanada* (Tinnitus) results in hearing only loud sounds, hearing with difficulty, and gradually leading to deafness.

*Acharya Sushruta* has mentioned in *Urdhvjatru gata Marmas* (supra clavicular region) that when *Aghata* (trauma) on *Vidhura Marma* occurs, it will lead to *Badhirya*.

In *Ayurveda*, *Vataghna* and *Vatakaphaghna* are the treatments mentioned in context with *Badhirya*, which include *Vatashamaka Snehana*, *Swedana*, *Nasya*, *Karnapoorana*, oral administration of *Rasayana Sevana*, *Ghratapana*, and other *Vatahara* procedures.

The following are some tests that may be recommended for babies and children to diagnose hearing loss: Auditory brainstem response, central auditory evoked potential, Otoacoustic emissions, Middle ear muscle reflex, Tympanometry, B.E.R.A. Audiometry.

## CASE REPORT

### Patient information

A 53-year oldmen child came to *Shalaky* OPD of ABC hospital on June10 2022, with complaints of decreased hearing in both ears since2year. Even he is facing trouble in understanding speech. she hadn't taken any allopathic treatment. So, he came here for further *Ayurvedic* management.

### History of past illness

The subject has no systemic illness.

### Family history

No any history found related to sensory neural hearingloss.

**Table1:PersonalHistoryofthePatient**

1.	Bowel	Regular,once a day
2.	Appetite	Good
3.	Micturition	5-6timesperday
4.	Sleep	8hr for night and day sleep for 1 hour
5.	Diet	Mixed

**Table2:AshtaSthanaPareeksha**

3.	<i>Mutra</i>	<i>Prakruta,5to6times/day, once at night</i>
4.	<i>Jihwa</i>	<i>Lipta</i>
5.	<i>Shabda</i>	<i>Prakruta</i>
6.	<i>Sparsha</i>	<i>Prakruta</i>
7.	<i>Druk</i>	<i>Aawila</i>
8.	<i>Akruti</i>	<i>Mahyama</i>

**Table3:Dashavidha Pareeksha**

1.	<i>Prakriti</i>	<i>Vata-Pittaja</i>
2.	<i>Vikriti</i>	<i>Madhyama</i>
3.	<i>Sara</i>	<i>Tavakasara</i>
4.	<i>Samhanana</i>	<i>Madhyama</i>
5.	<i>Satmya</i>	<i>Madhyama</i>
6.	<i>Satva</i>	<i>Pravara</i>
7.	<i>Ahara Shakti</i>	<i>Madhyama</i>
8.	<i>VyayamaShakti</i>	<i>Madhyama</i>
9.	<i>Vaya</i>	<i>Bala</i>
10.	<i>Pramana</i>	<i>Madhyama</i>

**OnExaminationofEar****Table4:OnExaminationofEarbeforetreatment (30/12/2023)**

Otosopicexamination	Rt.Ear	Lt.Ear
EAC	Clear	Clear
Tympanic membrane	Intact and Mild retracted	Intact and Normal
<b>TunicForkTest</b>		
a. Rinne'stest	AC>BC	AC>BC
b. Weber'stest	midline	midline
<b>Audiometry-PTA</b>	Severemixed hearingloss	Moderatelysevere sensory neural hearing loss

**Table 5: Treatment advised from (1/01/2024 to 1/06/2024), follow up for 6 months at the interval of 15 days.**

Treatment 1/01/2024to 1/06/2024	Medicine	Mode of administration	Duration
<b>Oraladministration</b>	<i>SarivadiVati</i>	1Vat of 250mg thrice a day with lukewarm water or milk after a meal.	6 months
<b>Karnapurana</b>	<i>Bilwadi Taila</i>	Approx. 24-26 drops (1ml). For 15 days with a 3-day interval	6 months (2 sittings in 1 month).
<b>Nasya Karma</b>	<i>AnuTaila</i>	6-6 drops each nostril for 7 days with a 3-day interval	6 months (3 sittings in 1 month).

**Pathya - Apathya (do's and don'ts)**

The patient was advised to follow *Pathya Apathya* during the whole treatment duration.

**Pathya Vihara**

*Avyayama* (avoidance of exercise), *Ashirahsnana* (Avoid head bath), *Brahmacharya* (celibacy), *Abhashana* (avoid excessive talking), *Agni Santapa*

**Pathya Ahara**

*Godhuma* (wheat), *Shali* (rice), *Mudga* (green gram), *Yava* (barley), *Puranaghrita* (ghee), *Patola* (bottle gourd), *Shigru* (drum stick), *Lava*, *Mayura* (peacock), *Harina*, *Kukkuta*

**Apathya Vihara**

*Danta Kastha* (brushing teeth with a hard brush made out of tender branches), *Sirahsnaana* (head bath), *Vyayama* (heavy exercise), *Shoka*, *Shrama* (Physical exertion)

**Apathya Ahara**

*Ruksha Kashaaya Bhojana, Pravata* (windstorm) and *Shitodaka*(drinking cold water)

**DISCUSSION**

According to the *Acharyas*, *Shrotrendriya* originates from *Akasha Mahabhoota*. *Shabda* (sound) travels through *Vata* while in the presence of *Akasha Mahabhuta*(space). Through *Shrottendriya* *Adhishthana*(*Karna*), *Shrottendriya* transmits the sound to *Shravana Buddhi*, which is responsible for the perception of sound. Thus, *Vata* plays an important role in normal hearing procedures. According to *Aacharya Sushruta*, vitiated *Vata* and *Kapha Doshas* reside in *Shabdhanuvaha Srotasa* or *Sira* and cause *Badhriya*(SNHL).

The “*Vata Vyadhi Chikitsa*[7]” and *Rasayana Chikitsa* (rejuvenation therapy) can be implemented as the management of *Badhriya*. These principles probably help in the regeneration and repair of damaged hair cells, which have improved hearing. As *Acharyas* has mentioned, different kinds of treatments are used in the management of *Badhriya*(SNHL), like *Ghritapana*, *Rasayana Sevana*, *Nasya*, *Snehana*, *Swedana*, *Snehavirechana*, *Sirobasti*, *Karnapurana*, *Jalaukavacharana*, etc., but *Karnapurana* and *Nasya* are the most prescribed procedures in the management of *Badhriya*(SNHL).

As mentioned earlier, the signs and symptoms of hearing loss can be correlated with *Badhriya* in *Ayurveda*. *Badhriya* is due to the vitiation of *Vata* and *Kapha Dosha*. *Anu Taila Nasya* scratches out the *Kapha Dosha* from *Shira* and improves the function of *Indriyas* (*Karna Indriya*), thereby clearing the *Srotorodha*. *Anu Taila* was planned, which pacifies the aggravated *Vata Dosha* in the head and helps to normalize the function of the central nervous system by nourishing the nervous system and balancing the circulation of blood in the sense organs, including the ear.

*Shringataka Marma* in *Shira* is the junction of all sense organs like the eye, ear, nose, and tongue, and any medicine applied over this area targets the vitiated doshas related to all sense organs and helps in the nourishment of nerves connecting to these areas. *Karnapurana* is one of the treatments mentioned for all *Karnarogas*. *Karnapurana* with *Bilwadi Taila* has the *Vatashamak* property and maintains normal hearing capacity, as quoted by *Acharya Charaka*. “*Na Karnaroga Vatothaha Nochchav Shrutih, Na Badhriyam Syannityam Karna Tarpanaat*.”[12] *Sarivadi Vati* removes *Shrotorodha* and does *Vatanulomana* also. It is the best *Rasayana Dravya* for *Shravnenndriya Vikara*.

**RESULTS**

Before the start of the treatment on JUNE 10, 2022, the audiometry report was done, which showed severe mixed hearing loss in the right ear and moderately severe sensory neural hearing loss in the left ear. After six months of treatment protocol, the patient got excellent results in subjective criteria. Now she was able to hear from one room to another, feeling relieved in her complaints and repeated Audiometry was done after treatment on JULY 01, 2022, which showed moderate sensory neural hearing loss in both ears.

**Table 6: On Examination of Ear After Treatment**

Otosopic examination	Rt.Ear	Lt.Ear
EAC	Clear	Clear
Tympanic membrane	Intact and Normal	Intact and Normal
<b>Tuning Fork Test</b>		
a. Rinne's test	AC>BC	AC>BC
b. Weber's test	The sound lateralized towards right ear.	-
<b>Audiometry</b>	Moderate sensory neural hearing loss	Moderate sensory neural hearing loss

## CONCLUSION

In sensory neural hearing loss, “*Vata Vyadhi Chikitsa*” and *Rasayana* therapy can be implemented as a management method. *Anu Taila Nasya*, *Bilwadi Taila Karnapurana*, and *Sarivadi Vati* orally have provided excellent improvement in the present case. Thus, this case study indicates effective management Ayurvedic oral medicine and procedures to treat *Badhirya*(sensory neural hearing loss).

### Audiometry Report of Patient

#### BEFORE TREATMENT (10,JUNE22)

#### AFTER TREATMENT(01,JULY22)



## REFERENCES

1. <https://pdfs.semanticscholar.org>
2. Kaviraja Ambikadutta Shastri; Sushruta Samhita of MaharsiSusruta with the Ayurveda tattva Sandipikahindi Commentary; Chaukhambha Sanskrit Sansthan Varanasi, reprint 2013. Uttartantra 20/3-6, pg. No. 111.
3. Kaviraja Ambikadutta Shastri; Sushruta Samhita of MaharsiSusruta with the Ayurveda tattva Sandipikahindi Commentary; Chaukhambha Sanskrit Sansthan Varanasi, reprint 2013. Uttartantra 20/8, pg. No. 116.
4. Sushruta Samhita with the Nibandha Sangrah Comm. - DalhanaChaukhambha Sanskrit sansthan Varanasi, reprint 2013; Nidana sthana 1/83, pg. No. 269.
5. Brahmanand tripathi; astangahrdayam of srimadvagbhata with the nirmalahindi commentary; Chaukhambha Sanskrit pratishthandelhi, reprint 2014; Uttartantra 17/10, pg. No. 1000.
6. Sushruta Samhita with the Nibandha Sangrah Comm. - DalhanaChaukhambha Sanskrit sansthan Varanasi, reprint 2013; Nidana sthana 1/83, pg. No. 269.
7. Brahmanand tripathi; astangahrdayam of srimadvagbhata with the nirmalahindi commentary; Chaukhambha Sanskrit pratishthandelhi, reprint 2014; Uttartantra 17/10, pg. No. 1000.
8. Sushutra, Ambika Dutta Shastri, Sushutra Samhita with Elaborated Ayurveda Tatva Sandipika Hindi Commentary, Reprint. Varanasi: Chaukhambha Sanskrit Sansthan, SharirSthan 6/46, 2011
9. [https://En.Wikipedia.Org/Wiki/Sensorineural\\_Hearing\\_Loss](https://En.Wikipedia.Org/Wiki/Sensorineural_Hearing_Loss) 10-03-2023 09:45am
10. Sushruta. Sushruta Samhita, Edited by Vaidya Jadavji Trikamji Acharya, Reprint Edition. Varanasi: ChaukhambhaSurbharti Prakashan; 2008. Uttara Tantra 21/3.
11. Deboshree Bhattacharjee <https://parenting.firstcry.com/articles/hearing-loss-in-children>
12. Shastri KN, Chaturvedi GN. Charaka Samhita of Agnivesha, Sutra Sthana. Ch. 5., Ver. 84 2009 Varanasi Chaukhamba Sanskrit Sansthana:128
13. YT Karnarogrogadhikara Uttar tantra 1-4 .