



AYURVEDIC MANAGEMENT OF *BADHIRYA* W.S.R SENSORINEURAL HEARING LOSS - A CASE STUDY

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ABSTRACT

Badhirya Is one among the *karnaroga* It is defined as a partial or complete inability to hear. According to *acharyas* when vitiated *vata dosha/kaphanubandha vata dosa* obstructing the *shabdavaha srotas*. Sensory neural hearing loss means when there is a problem in the sensory apparatus Cochlea Hearing loss caused by damage to the inner ear or the nerve from the ear to the brain. Or any cause of hearing loss due to a pathology of the cochlea, auditory nerve, or central nervous system. Sensorineural hearing loss is permanent. In adults, causes include ageing and prolonged exposure to loud noise. In children and infants, causes include congenital abnormalities or infections.

KEYWORD: SENSORINEURAL, HEARING LOSS, *BADHIRYA*, *KARNAPOORANA*.

INTRODUCTION

Sensorineural hearing loss (SNHL) occurs when there is damage to the inner ear (cochlea) or to the nerve pathways from the inner ear to the brain. This type of hearing loss can be caused by aging, genetics, exposure to loud noise, infections, head trauma, or certain medications. SNHL often leads to difficulty hearing faint sounds, understanding speech, and distinguishing between sounds in noisy environments. Treatment options may include hearing aids, cochlear implants, or other assistive devices, depending on the severity and underlying cause of the hearing loss.

In the earlier times it was very 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.

Badhirya Is one among the *karnaroga* It is defined as a partial or complete inability to hear. According to *acharyas* when vitiated *vata dosa/kaphanubandha vata dosa* obstructing the *shabdavaha srotas* it results in hearing difficulty called "*BADHIRYA*".^[1] Most of the symptoms of *badhirya* are seen in DEAFNESS, so can be correlated with it.

Deafness is one of the common and most prevalent to all. Over 5% of the population has hearing impairment. Since this becomes increasingly prevalent with age, it is

greater than 130 per 1000 population in those aged 65 or over.

There are two types of hearing loss

- 1) Conductive hearing loss
- 2) Sensorineural hearing loss.

Sensorineural hearing loss (SNHL) is the most common type and accounts for the majority of all hearing loss. The treatment that are told in classics are *Ghrutapana*, *Snehana*, *Swedana*, *karnapurana*.^[2] *Snehana* is the principal line of treatment for controlling *Vata dosha*.

Karnapoorana is a type of *Bahya snehana*, thus it the best treatment for *Vata nigraha*. Hence the study has been taken with *Nagaradi taila karnapurana* mentioned in *Yoga Ratnakar*^[3] and *Ksheerabala taila karnapurana* mentioned in *Sahasrayoga 4* which is safe, devoid of complications, cost effective.

MATERIALS AND METHODS

This is a case report of 65 years old woman who approached Shalaky Tantra ENT OPD of Govt Ayurveda College, Bengaluru. with complaining of reduced hearing since 2 years.

Associated with ringing sensation in bilateral ears since 6 months. She was chosen for study.

CASE REPORT

Name- Chandramma
Age- 65 years
Sex- female

Chief Complaints

Complaining of reduced hearing since 2 years.

Associated Complaints

Ringing sensation in bilateral ear since 6 months.

History of Past illness

Patient was diagnosed with bilateral SNHL since 6 months.

Family History

Nothing contributing.

Past Medical History

Diabetic since 3 years under medication and Hypertensive since 2 months.

Personal History

BP -140/90mmhg
R.R -18/min
Temperature - 98.4F
Appetite - Good
Sleep - Disturbed
Bowel - once a day
Micturition – 5/6 times day
Tongue - pallor
Addiction - Tea, Coffee.

CLINICAL FINDINGS**Ear examination**

Torch light – Normal

Otosopic

	Right ear	Left ear
EAC	Clear	Clear
T.M	Intact	Intact
Cone of light	visible	Visible

MANAGEMENT AND TREATMENT

Treatment started. (4/12/23 to 5/2/24)

Karnapurana with *bilwadi taila* for 7 days 2 sitting of *Karna poorana* with 14 days gap with *ghritapana*. And internally Cap KBT 200 1 bd for 1 month (30th day to 60th day)

KARNAPOORANA (Instillation of medicated liquids into the ears) It is also a type of *bahya sneha*. *Acharya Charaka* and *Vagbhata* advocate that *karnapoorana* should.

Procedure	Medicine	Dose	duration		Follow up
<i>Karnapoorana</i>	<i>Bilwa taila</i>	Quantity sufficient	For 7 days	From 4/12/23 to 10/12/23	
<i>Ghritapana</i>	<i>Goghrita</i>	12ml bd	14 days	11/12/23 to 25/12/23	
2 nd sitting <i>karnapoorana</i>	<i>Bilwa taila</i>	Quantity sufficient	For 7 days	26/12/23 to 1/1/24	
cap <i>ksheerabala</i> 100	<i>Ksheerabala</i> 100	1 bd	1 month	2/1/24 to 2/2/24	

RESULT

After 2 months of treatment patient got improvement.

Subjective improvement also present like better hearing, reducing ringing sensation.

Audiometry 2/12/2023 before treatment

ಕೆ.ಎ. ಜನರಲ್ ಆಸ್ಪತ್ರೆ, ಮಲ್ಲೇಶ್ವರಂ, ಬೆಂಗಳೂರು
ಶ್ರವಣ ಪರೀಕ್ಷಾ ವರದಿ

AUDILOGICAL EVALUATION REPORT

Name: Mrs Chandrasamma UHD No: 202300157197
 Age: 70y Gender: Female Phone No: 97452 17909 Date: 21/12/2023
 Audiometer Used: Auditevo Endeavour Advance Pre / Post Treatment: Katrinavargan

Key to Symbols

Modality	Right	Both	Left
Air Conduction			
Unmasked	○	×	○
Masked (M)	△	□	△
Un-no Response	◊	◊	◊
M-no Response	◊	◊	◊
Bone Conduction Masked			
Unmasked	<	>	>
Masked (M)			
Un-no Response			
M-no Response			
Bone Conduction Masked	←	→	→
Unmasked	→	←	←
Masked (M)	→	←	←
Un-no Response	→	←	←
M-no Response	→	←	←
Air Conduction St	+	+	+
Sound Field No-Response	+	+	+

Masking could not be done as headphones do not produce masking noise

PURE TONE AUDIOGRAM

RIGHT

RIGHT

LEFT

LEFT

FREQUENCY (Hz)

WEBER TEST	250 Hz	500 Hz	1000 Hz	2000 Hz

SPEECH AUDIOMETRY

	PTA (dB HL)	SRT (dB HL)	SIS (%)	SPIN (%) (0dB SNR)	SDT (dB HL)	UCL (dB HL)
RIGHT EAR	<u>58</u>					
LEFT EAR	<u>46</u>					

IMMITTANCE EVALUATION

Tympanometry	EAR	Type	Tympanometric Pk Pr (daPa)	Static Admittance (cc)	Tympanometric width (daPa)	Physical Volume (cc)	Resonance Frequency
	RIGHT EAR						
	LEFT EAR						

Acoustic Reflex Threshold

Probe Ear	Frequency				Ear	500 Hz
	500 Hz	1000 Hz	2000 Hz	4000 Hz		
RIGHT	Ipsi				RIGHT (Phone Ear)	Positive / Negative
	Contra					
LEFT	Ipsi				LEFT (Phone Ear)	Positive / Negative
	Contra					

Interpretation

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In this case a particular treatment helps to get improvement.

CONCLUSION

The potential of *ayurvedic* treatment can help to get rid of chronic disease like neural disorders especially SNHL. *bilwa taila* helps for ear pain and hearing loss constant ringing sensation. *Go ghrita* helps for *vata* shaman. *ksheerabala taila vata shamaka* helps to elevate *badhira*.

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