

AUDITORY AND SPEECH-LANGUAGE CHARACTERISTICS OF VESTIBULAR SCHWANNOMA: A CASE REPORT

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Introduction

- Vestibular Schwannoma (Acoustic Neuroma) - non-cancerous tumor
- Incidence - 1 per 100,000 persons
- Depending on tumor size - speech-language and hearing characteristics may vary

Aim

- To highlight on the auditory and speech-language characteristics in vestibular schwannoma
- To shed light on need of speech-language therapist and audiologist service for post-surgical complication treatment of vestibular schwannoma

Method

- 58-year-old female referred to department of Speech and Hearing, KMC Manipal
- Complaints- reduced speech intelligibility, hearing difficulty, continuous tinnitus in left ear
- Evaluation included - speech, language and hearing, radiological evaluation (pre and post)

Results

Evaluations done	Pre surgery	Post surgery
Neurosurgery	<ul style="list-style-type: none">• C/o difficulty in walking and swaying to Left side.• Weakness of LL• Loss of sensation	<ul style="list-style-type: none">• Right UL&LL weakness• Mild degenerative changes
Radiodiagnosis and Imaging	Left Vestibular Schwannoma. Lesion medially compressing the pons, left middle cerebellar peduncle, left VII/VIII CN.	Vasogenic edema in the left cerebellum, left hemi-pons and left mid brain and left thalamus and left middle cerebellar peduncle with mass effect in the form of mild compression of left hemipons and 4 th ventricle- persist same as pre op study
Speech and language evaluation	<ul style="list-style-type: none">• Lips deviated to right side• Poor lip seal• Drooling present• Unable to maintain oral pressure• Reduced speech intelligibility• Reduced rate and range of articulators• Language skills-adequate	

Evaluations done		Pre surgery	Post surgery
Audiological evaluation	PTA	93dBHL	85dBHL
	SRT	105dBHL	96dBHL
	SDS	85%	85%
	TYMP	'A' type reflexes absent	'A' type reflexes absent

- Speech and hearing complications are present
- Sensory and motor deficits persists
- Post- therapy long term intervention
 - Strengthen the oral musculature
 - hearing management options

Conclusion

- Tinnitus and hearing loss primarily affected in vestibular schwannoma
- Radiation therapy and surgical removal of the tumour-means of medical line of management.
- Post-surgery speech-language and hearing complications require long term rehabilitation.
- Clinical symptoms of cranial nerve IX, X, XI or XII are rare

References

