CLINICAL AUDIOLOGY REPORT

Patient Name: Rahul [Redacted] **DOB:** [Date 5 years ago] **Age:** 5 Years, 0 Months **Date of Evaluation:** October 12, 2024 **Referral Source:** Pediatrician (Dr. S. Gupta) **Reason for Visit:** Evaluation of hearing sensitivity due to parental concerns regarding speech clarity and delayed language development. School teacher noted inattention.

HISTORY

Rahul is a 5-year-old male presenting for a comprehensive audiological evaluation. Parents report that Rahul often says "what?" and turns up the volume on the television. He passed his newborn hearing screening. No history of recurrent otitis media reported. Birth history is unremarkable (full term, NVD). No known family history of sensorineural hearing loss.

OTOSCOPY

- **Right Ear (AD):** Canal clear, Tympanic membrane intact and pearly grey. Cone of light visualized.
- **Left Ear (AS):** Canal clear, Tympanic membrane intact and pearly grey. Cone of light visualized.

TYMPANOMETRY & ACOUSTIC REFLEXES

- **Tympanometry:** Type A tympanograms bilaterally, indicating normal middle ear pressure and compliance.
  - *AD:* ECV: 0.8 ml, Peak Pressure: -10 daPa
  - *AS:* ECV: 0.8 ml, Peak Pressure: -15 daPa
- **Ipsilateral Acoustic Reflexes:** Present at reduced sensation levels at 500, 1000, and 2000 Hz bilaterally.

PURE TONE AUDIOMETRY (PTA)

Transducers: Insert Earphones | Reliability: Good

- **Right Ear (AD):** Air conduction thresholds obtained between 25-35 dB HL across frequencies 250-8000 Hz. Pure Tone Average (500, 1k, 2k) is 30 dB HL. Bone conduction thresholds match air conduction thresholds within 5-10 dB (no air-bone gap).
- **Left Ear (AS):** Air conduction thresholds obtained between 30-40 dB HL across frequencies 250-8000 Hz. Pure Tone Average (500, 1k, 2k) is 32 dB HL. Bone conduction thresholds match air conduction thresholds.

Configuration: Flat configuration bilaterally with a slight dip at 4000 Hz.

SPEECH AUDIOMETRY

Ear	SRT (dB HL)	WRS (%)	Presentation Level
AD	30	92%	65 dB HL
AS	35	88%	70 dB HL

- **SRT (Speech Reception Threshold):** Consistent with Pure Tone Average.
- **WRS (Word Recognition Score):** Good recognition scores at suprathreshold levels in quiet. Testing in noise (+5 dB SNR) showed reduced scores (70% AD, 65% AS).

OTOACOUSTIC EMISSIONS (DPOAE)

Distortion Product OAEs were absent at frequencies 2000, 3000, 4000, and 6000 Hz bilaterally, consistent with cochlear pathology.

IMPRESSION

Results suggest a **Bilateral, Mild Sensorineural Hearing Loss**. The loss is symmetrical. Middle ear function is within normal limits. The hearing loss is sufficient to impact the reception of soft speech and high-frequency consonant sounds (s, f, th, sh), which correlates with the reported speech delays.

RECOMMENDATIONS

1. **Medical Clearance:** ENT consultation to rule out any medical contraindications for amplification.
2. **Amplification:** Trial of bilateral digital hearing aids (BTE style with earmolds) is strongly recommended to improve access to speech spectrum.
3. **Speech-Language Pathology:** Comprehensive evaluation to assess current language age vs. chronological age.
4. **Educational Support:** Preferential seating in the classroom (front row, away from noise sources).