NAME: Cobra Kai
DOB: 2/28/2022
MR#: 11111115

Date of Service: December 5, 2022

PCP: Heidi Klum MD

Clinic: Hi-Ho Cheery-O Audiology Clinic
Discipline: Pediatric Audiology

Background:
Cobra Kai, age 9 months, was seen for a hearing evaluation through the Hi-Ho Cheery-O Audiology Clinic. Cobra was accompanied by her mother.

She was initially referred for testing when she did not pass her newborn hearing screening (OAE) for the Right ear at Karate Medical Center in Washington.

She has been seen on multiple occasions and presents with a history of middle ear fluid, eustachian tube dysfunction, and conductive hearing loss. The right ear canal is also stenotic which has made testing of that ear challenging.

Cobra was last seen by Audiology on 10-6-2022. Results obtained at that time revealed normal middle ear function bilaterally, normal cochlear emissions for the left ear, normal and reduced cochlear emissions for the right ear. There is note that probe fit/calibration was difficult to obtain for the right ear which may have influenced measurement of the emissions.

Today, Cobra's mother indicates her daughter appears to be responding well to sounds around her. She shared that Cobra was referred to a pulmonologist due to ongoing congestion/illness and was given an inhaler. She has not had any ear infections.

There is no known family history of permanent hearing loss in childhood, but there is a history of middle ear issues and related hearing loss.

Audiology Results:
Pain: None reported.

Otoscopy:
Right Ear: Cerumen present, tympanic membrane partially observed. Ear canal is narrow.
Left Ear: Cerumen present, tympanic membrane partially observed.

Tympanometry: 1000 Hz Probe Tone
Right Ear: Notched tracing with normal middle ear pressure. Ear canal volume (0.5). (226 Hz probe tone also used. The tracing has a slight notch, but this could have been patient movement. Normal middle ear pressure and eardrum compliance noted.)

Left Ear: Normal middle ear pressure and eardrum compliance.

Acoustic Reflex: (226 Probe Tone)
Right Ear: An ipsilateral acoustic reflex was obtained at 80 dB HL using a broadband stimulus.

Left Ear: An ipsilateral acoustic reflex was obtained at 70 dB HL using a broadband stimulus.

Distortion Product Otoacoustic Emission (DPOAE):
Right Ear: Normal emissions were obtained across the frequency range 1000-8000 Hz indicating normal cochlear outer hair cell function and suggests normal to near normal hearing sensitivity in at least this frequency region.

Left Ear: Normal emissions were obtained across the frequency range 1000-4000 Hz indicating normal cochlear outer hair cell function and suggests normal to near normal hearing sensitivity in at least this frequency region. Emissions from 6000-8000 Hz are present at reduced amplitudes.

Condition of Hearing:
Cobra's hearing was evaluated using Visual Reinforcement Audiometry in the sound field. She localized to the left and right in response to live voice stimuli down to presentation levels of 15 dB HL and to narrow band/warble tone stimuli centered at 1000 Hz and 8000 Hz down to presentation levels of 20 dB HL before fatiguing of the test task. Responses were fair in reliability. (Passing criteria requires responses of 15 dB or lower to voice stimuli and 20 dB or lower to narrow band stimuli.)

Cobra's hearing was then informally evaluated using Behavioral Observation Audiometry utilizing an assortment of noisemakers encompassing a broad spectrum of frequencies and intensities. Cobra oriented to the left and right in response to the noisemakers. It should be noted that this type of test does not provide ear or frequency specific information, but rather indicates Cobra is appropriately using auditory timing cues to determine the direction of different sounds presented within close proximity and is demonstrating appropriate auditory development.

Comments and Recommendations:
The results obtained today revealed normal middle ear function, present acoustic reflexes, normal/reduced cochlear emissions, and normal hearing responses to a few stimuli/sounds in the test booth. These findings are consistent with normal to near normal hearing acuity and indicate Cobra's hearing is currently adequate for her speech and language development and communicative needs.

The results were discussed with her mother. Due to the reduced high frequency cochlear emissions and her history of middle ear issues, follow up testing is recommended in 6-9 months.

It was a pleasure meeting and working with Cobra and her mother and we look forward to seeing them again. If there are any questions or comments regarding the results and recommendations of this evaluation, please do not hesitate to contact me at (503) 444-4444.

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