

performed with tone burst sound stimulus at 70dB NA, which differed in frequency (1000Hz-standard and 2000Hz-non-standard), presented randomly, in an oddball paradigm. The procedure was performed before and after intervention. For intervention, the training of phonological and metalinguistic skills of consciousness of word, syllables, phonemes, rhyme and alliteration were performed.

**Results:** The mean latency values for pre-therapy dyslexic children were: RIGHT EAR P1 = 113.40ms; N1 = 136.31ms; P2 = 187.62ms; N2 = 214.69ms; P3 = 341.69ms; LEFT EAR: P1 = 91.77ms; N1 = 137.58ms; P2 = 180.41ms; N2 = 219.29ms; P3 = 336.49ms. And post-therapy were: RIGHT EAR P1 = 107.47ms; N1 = 131.10ms; P2 = 183.15ms; N2 = 238.03ms; P3 = 341.09ms; LEFT EAR: P1 = 92.89ms; N1 = 123.08ms; P2 = 167.02ms; N2 = 195.43ms; P3 = 320.27ms. There was no statistical difference between pre and post-therapy evaluations. The morphology of the N2-P3 wave complex was more stable in the post-training evaluation.

**Conclusion:** In this study, latency of long latency auditory evoked potential components was not an appropriate pre- and post-intervention evaluation instrument for monitoring the therapeutic intervention.

**Keywords:** event-related potentials, P300, intervention, dyslexia.

#### Cochlear Implant in Kearns- Sayre Syndrome

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**Introduction:** Hearing loss may be related to several factors, among them is hearing loss due to certain genetic syndromes. The Kearns-Sayre syndrome is characterized by mutations in mitochondrial DNA, which is responsible for the production of energy (adenosine triphosphate), which is of utmost importance for the development of structures requiring this energy, as the cochlea.

**Objective:** To describe the medical evaluation results, the audiological diagnosis and intervention of two twin sisters, diagnosed with Kearns- Sayre syndrome and hearing loss.

**Resumed Report:** This case was accompanied at the hospital since 2000, due to the progressive characteristic of hearing loss found by audiological tests, and the findings in cases related to the syndrome. The intervention with the hearing aids has become not much beneficial to good oral communication for case 1, who happened to have the diagnosis of bilateral profound hearing loss. So after discussions in clinical meetings, the team opted for the indication of cochlear implants for this patient (case 1), achieving good results. Since her twin sister (case 2) has had good results with hearing aids, the patient (case 2) will continue the audiologic follow up, to enable the verification of the developments in the case and the discussion of a new approach if necessary.

**Conclusion:** Patients suspected or diagnosed with Kearns-Sayre syndrome should seek audiological diagnosis, since it may be a possible progressive hearing loss, which requires rehabilitation with the use of hearing devices.

**Keywords:** hearing loss, cochlear implantation, diseases in twins.

#### Auditory Training: Scale of Auditory Behavioral Questionnaire and Behavioral Evaluation in Children with History of Otitis Media

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**Introduction:** Otitis media is a prevalent disease that can cause harmful effects in children development as auditory processing disorder. The questionnaires are tools that can show behavioral changes resulting from auditory training programs.

**Objective:** To analyze the effect of auditory training in children with a history of otitis media considering auditory processing behavioral tests and the responses of the Scale of Auditory Behaviors questionnaire.

**Methods:** 16 children with history of otitis media (8-14 years) with normal hearing (<20dBHL for 250-8000Hz, tympanogram type A). The auditory processing was assessed by following tests: Dichotic Digits, Pitch Pattern Sequence - Humming and Verbal, Gaps in Noise and Synthetic Sentence Identification with Ipsilateral Competing. Besides that, it was performed The Scale of Auditory Behaviors questionnaire in pre and post auditory training conditions.

**Results:** Comparing the pre and post intervention results, we observed statistically significant values for the tests: Dichotic Digits [RE: 0.007 - LE: 0.004], Pitch Pattern Sequence & Humming [RE: 0.002 - LE: 0.001] and Verbal [RE: 0.000 - LE: 0.000], Gaps in Noise [RE: 0.001 - LE: 0.001], Synthetic Sentence Identification with Ipsilateral Competing [RE: 0.004 - LE: 0.001]. The questionnaire presented p-value <0.05 for questions related with hearing in noise (p = 0.001), hearing floating (p = 0.002), distraction (p = 0.049), short attention span (p = 0.011), inattention (p = 0.026) and final score (p = 0.003).

**Conclusions:** The results suggest that Scale of Auditory Behaviors questionnaire is an accurate tool for monitoring the rehabilitation of the central auditory system.

**Keywords:** otitis media, auditory processing disorder, auditory training.

#### Analysis of the Responses of Three Different Hearing Screening Methods

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**Introduction:** Individual's quality of life is directly related to the development of his abilities, in which deafness is an interference factor in this process. In this context, neonatal hearing screening is the main instrument for prior identification of hearing losses, mainly through performing of otoacoustic emissions and brainstem auditory evoked potential.

**Objective:** To compare responses obtained by Auditory potential in the automatic and conventional mode and through transient and distortion product emissions in healthy adults without hearing loss.

**Method:** Fifteen healthy subjects, aged between 18 and 30 years, with hearing thresholds within the normal range participated in the study. It was used to record of the automatic potential the Accuscreen ABR Madsen, for conventional Biologic Navigator Pro and of the Bio-logic Navigator emissions through the Scout OAE Software.

**Results:** Waves I, III and V was present with latency according to Normality at 80, 45 and 35 dBnHL in the conventional potential. In the automatic the pass rate was 100% in both ears. The minimum thresholds obtained by potentials showed a high relation between the measurements (Qui-Square test p = 0.00). In the emissions, was observed a 100% pass rate for distortion product speech frequencies in both ears and a high failure rate in the 4KHZ frequency in the transient.

**Conclusion:** The minimum threshold for hearing screening was obtained in both potentials. In the emissions there was a greater defect number in the frequency of 4KHZ in