

workers. Conclusion: The hearing disorders' prevalence, suggesting NIHL, was 44% in this professional category. The age and the total occupational noise exposure time statistically influenced the pure tone audiometry results, what did not happen to the time of regular use of auditory protections. So, we can conclude that, possibly, the noise control procedures that are being applied in the tasks made by the carpenters are not enough to prevent significant noise induced hearing loss.

POSTER SESSION II - B DATE: 31/3/2010 TIME: 8H00 - 18H00 - PANEL 104B

PROFESSIONAL DRIVERS AUDIOLOGIC PROFILE

Authors

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Abstract: Introduction: Hearing loss induced by high noise level has been the subject of studies in the field of public health because of hearing impairment that affects communication and quality of life for workers. Currently, the individual is not only exposed to noise in the workplace but also in environments of daily activities such as street noise or home, in which this exposure is transient. Aim: The aim of this study was to analyze professional drivers' audiometric admissions to. Method: Through a cross-sectional study, 76 medical records of professional drivers in leased transport companies participated in this study. Interviews and audiometry performed by the audiometer Interacoustics, model MIDIMATE 622 were carried out. The tests were conducted in a soundproof booth while respecting the period of 14 hours of auditory rest. Prior to audiometry, visual inspection of the external ear canal was performed in order to verify the possibility to do the audiometry. Results: Of the 76 records analyzed, (82.89%) there was a prevalence of 4 kHz notch in the right ear and (68.42%) in the left ear; (84.21%) it showed a prevalence of 6kHz notch in the right ear and (77.63%) in the left ear. The mean thresholds at 500Hz, 1kHz and 2kHz in the right ear was 10.92 dB, and for the left ear was 11.89 dB; the mean average of thresholds at 3kHz, 4kHz and 6kHz frequencies in the right ear was 12.29 dB, and the left ear was 14.54 dB. Na comparação entre as médias dos limiares auditivos das orelhas direita e esquerda foi observado diferença estatisticamente significante nas frequências 1KHz (p=0,026), 3KHz (p=0,043) e 4KHz (p=0,043), evidenciando assim, que a orelha esquerda apresentou piores limiares auditivos nesta população. Conclusion: When analyzing the results of auditory admissions of these workers and taking into consideration that 100% of them reported no hearing complain, and the prevalence of alteration tests was high, it is essential that the audiometric evaluation should not only indicate the annual prevalence of disorders, but also establish a Program for Hearing Loss Prevention, which primarily promotes actions to prevent the onset or worsening of hearing loss, as well as the extra-auditory effects caused by high noise exposure or other agents of hearing for professional drivers.

POSTER SESSION II - C DATE: 31/3/2010 TIME: 8H00 - 18H00 - PANEL 104 C

STUDY OF THE NOISE EXPOSURE EFFECT ON THE ACOUSTIC REFLEX THRESHOLD

Authors

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Abstract: The search for new indicators to anticipate the diagnosis of noise-induced hearing loss has motivated researchers aware of the irreversible loss at 4 kHz. The application of acoustic reflex (AR) - as a predictor of noise-induced hearing loss - has been investigated in recent studies. However, although it has shown some promising results is not yet clear the AR potential for the diagnosis of noise-induced hearing loss. This paper aimed to add a little more to this research investigating the effect of intense noise exposure on acoustic reflex thresholds of 70 workers, 35 exposed to noise and 35 in the control group. The results showed that the intensities required to trigger AR in G1 were significantly higher ($p < 0.001$) than in G2, at all frequencies investigated, for both AR contra and AR ipsi, pointing to a decreased reflex activity in participants with a history of noise exposure. Positive correlations were found between AR and the "noise exposure time" so that the longer the exposure, the greater the AR threshold (absolute value) and vice versa. The best correlation was obtained in AR contra / 4 kHz (81.6%, $p < 0.001$). To date, the published studies that investigated the AR behavior in workers with hearing loss have conducted all the research in subjects with installed hearing loss. The present study investigated the AR in workers with preserved hearing, since the hypothesis is the possibility that AR thresholds may suffer impairments in subjects exposed to noise, even before the installation of hearing loss. Despite the methodological differences the present results corroborate the results of the literature that concluded that AR thresholds change after exposure to intense noise. One author emphasized 4 kHz as the frequency clearly more committed, a fact corroborated by our results. In contrast, an other author concluded that the noise does not determine changes in the AR threshold behavior. This study and the present one, present many similar aspects: size of sample survey, criteria for inclusion in the control group and statistical analysis findings. Among the few methodological differences that could be pointed out is the blend / model of equipment used to obtain the AR, but it is not reasonable to assume that different conclusions could be supported by such a difference. The lack of explicit methodological differences is at least intriguing forward to getting completely conflicting findings. The continuity of research, perhaps more consistent samples, will be essential to clarify the AR alterations in workers exposed to loud noise. Key Words: audiology, acoustic reflex, noise-induced hearing loss

POSTER SESSION II - D DATE: 31/3/2010 TIME: 8H00 - 18H00 - PANEL 104D

THE AUDIOLOGY PROFILE OF CHILDREN WITH THE HIV VIRUS WHO ALREADY HAVE A HISTORY OF OTOLOGICAL CHANGES

Authors

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Abstract: THE AUDIOLOGY PROFILE OF CHILDREN WITH THE HIV VIRUS WHO ALREADY HAVE A HISTORY OF OTOLOGICAL CHANGES SLEIFER P; CONDESSO LSN; CORREA AO UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL(UFRGS) OBJECTIVES: Trace the audiology profile of children with the HIV virus who already have a history of otological changes. METHODS: The study analyzed the personal data of 22 HIV carriers aged 8 to 12 years old, with a history of otological changes during their development. All the members of this group were referred by the Pediatric AIDS Attention Group (GAAP), to the phonoaudiology sector of the Nossa Senhora da Conceição Hospital in the city of Porto Alegre. We analyzed the data obtained through the audiological tests: Tonal Audiometry, Vocal Audiometry and Imitancimetry and applied a questionnaire, which contained questions regarding the auditory history of each individual. RESULTS: Among those surveyed, it was found that 7 presented unilateral hearing loss (31.8%) and 7 had bilateral hearing loss (31.8%), and that the majority of children and adolescents had hearing impairment. The hearing loss found in all these cases was the conductive type, where 13.6% had tympanic unilateral perforation and 31.8% bilateral. Moreover, it was found that out of the 44 ears examined, 11 (25%) had moderate degree of hearing loss, 10 (22.73%) of mild and 23 (52.73%) showed no hearing loss. Regarding Imitancimetry, the results presented were tympanometric curves type A and type B. The acoustic reflexes were compatible with the tympanometric curves found, which means, present in cases of tympanometric curve type A and absent in cases of tympanometric curve type B. It was observed by examining the questionnaire, that only 1 of those children and/or adolescents of that group, showed no complaint related to this fluctuating hearing. CONCLUSION: The audiological profile of children carrying the HIV virus with a history of otological changes was conductive hearing loss from mild to moderate degree, being unilateral or bilateral, with tympanometric curves type B in most cases, as well as absent acoustic reflexes. Such findings probably caused by inflammation of the middle ear and/or tympanic perforation. Keywords: Hearing, Acquired Immune Deficiency Syndrome, Children.

POSTER SESSION II - E DATE: 31/3/2010 TIME: 8H00 - 18H00 - PANEL 104E

AUDIOLOGICAL PROFILE OF PATIENTS OF HEARING HEALTH PUBLIC SERVICE – NISA II - PIRITUBA

Authors

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Abstract: Resumo / Abstract: The Hearing Health Integrated Centre Pirituba (NISA II) is a Public Hearing Health Service of medium complexity in the Universal Health System (SUS), located in Sao Paulo City, and started on September 2006. The goal of this study is to establish a retrospective overview of the audiological profile of the patients attended in the service. Due to implantation process and in order to reach the numbers suggested by the Public Health Secretary Programme, 239 patients had their hearing aids fitted in the first year, 318 in the second year and 475 were fitted in the third year. Objectives: delineate the audiological profile, age and gender of the patients attended in the hearing aid fitting Programme of the Audiological department of NISA II - Pirituba. Methods: through a retrospective revision of patients records, analyze hearing loss characteristics Date: type, degree, configuration and symmetry of loss, age and gender of the patients attended from the first of September 2006 to August 31st 2009. Records were obtained from 1032 patients from 5 to 95 years of age. Results: 90% of the records showed a sensorineural hearing loss, 9% sensorineural with a conductive component and only 1% showed a pure conductive hearing loss. The hearing loss degree analysis showed mild and moderate hearing loss in 70% of the patients, against 30% severe and profound hearing loss. Based on those audiograms, 70% were symmetric and 30% showed asymmetry. The obtained results related to gender showed 51% of female patients and 49% of male patients. Regarding the age, 63% of the patients were 60 years of age or more, 20% ranged from 40 to 59 years of age, 9% were 22 to 39 years of age and 7% were 12 to 21 years of age, and only 2% were less than 10 years of age. Conclusions: Most of the patients attended were more than 60 years of age and have a symmetric mild or moderate hearing loss.

POSTER SESSION II - F DATE: 31/3/2010 TIME: 8H00 - 18H00 - PANEL 104F

DIAGNOSTIC AUDIOLOGY PRACTICE AND EVOLUTION IN NEONATE WITH INDICATOR OF RISK HEARING LOSS AFTER FAILURE

TANU: A CASE REPORT

Authors

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Abstract: Background: The diagnosis of hearing disorders in children up to 3 months, and the therapeutic intervention until 6 months of age, allow children with hearing loss presents a language development similar to those listeners (Yoshinaga-Itano, 1999). The Universal Newborn Hearing Screening (UNHS), inserted in hearing health programs, allows the identification and early therapeutic intervention in cases with hearing impairment. As the most used tests in research protocols hearing in neonates are Diagnostic Auditory Brainstem Response (ABR) associated with emissions (OAE), the interpretation of results must consider the changes in electrical responses of the brainstem that occurs in the early years of life due to the maturation process beyond the conductive component that may be present and involved. Both the plasticity and maturation are, in part, dependent on auditory stimulation, whereas auditory stimulation activates and reinforces specific neural pathways (Chermak & Musiek, 1992). Light of this knowledge is currently expected that the amplification is introduced even with partial hearing results (Boéchat, 2003). The program diagnostic audiological services and Phonoaudiology in a teaching hospital in São Paulo, adopts as a conduit to conduct two audiological assessments within three months or so in order to minimize the rate of false positives, as well as evaluate the process of maturation of the auditory pathways. Objective: To present the result of evolutionary audiological evaluation in a neonate with risk factors for hearing loss (family history) which failed in TANU. Method: The audiological evaluations were performed in this case through the ABR, OAE and evaluation of behavioral observation, with 2, 5 and screening at 18 months of age. Results: The initial assessment suggested severe hearing loss in both ears. Was decided, then, the binaural hearing aids and auditory stimulation. From the auditory stimulation and behavioral assessment, it became positive response by the patient and 5 months, the assessment of integrity of auditory pathways, was consistent with the age and electrophysiological thresholds corresponding to the psychoacoustic within the normal range bilaterally beyond the presence of functional responses of outer hair cells in transient evoked and distortion product. At 18 months the patient remained in audiological responses appropriate and consistent with his chronological age. Conclusion: It is suggested from the results of a likely association with the maturational process hearing, which also seems to have been triggered by inter diagnostic auditory stimulation. Moreover, the diagnosis of hearing impairment to be defined only in the second examination of ABR became important in this case of false-positive for hearing loss.

