

speech audiometry, acoustic immittance measures, transient evoked otoacoustic emissions and auditory brainstem response. RESULTS: In the clinical history the patient reported she had been having great hearing difficulties especially on the right ear for ten years without apparent cause. Auditory evaluation was carried out in two sessions of 45 minutes each. During the first session, the patient showed difficulties for pure tone and speech audiometry revealed results compatible to normal peripheral hearing (normal hearing thresholds, normal acoustic immittance measures, present transient and distortion product evoked otoacoustic emissions). Click evoked auditory brainstem response showed normal nerve conduction for neurologic protocol and electrophysiologic thresholds compatible with normal hearing in the frequency band of 2000-4000 Hz bilaterally. CONCLUSION: Audiological evaluation revealed hearing thresholds within normal limits bilaterally. This case highlights the importance of electroacoustic and electrophysiologic measures as a complement in the differential diagnosis in cases of nonorganic hearing loss.

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 76

ASSOCIATION BETWEEN HEARING LOSS AND DEPRESSION IN NON-INSTITUTIONALIZED ELDERLY PEOPLE

Authors

ADRIANE RIBEIRO TEIXEIRA¹, ANDRÉA KRÜGER GONÇALVES¹, CINTIA DE LA ROCHA FREITAS², ANA MARIA PUJOL VIEIRA DOS SANTOS², SILVIA DORNELLES¹, ÂNGELO JOSÉ GONÇALVES BÓS³

Institution

1. UFRGS, Universidade Federal do Rio Grande do Sul
2. ULBRA, Universidade Luterana do Brasil
3. PUCRS, Pontifícia Universidade Católica do Rio Grande do Sul

Abstract: The population aging is a worldwide phenomenon. This process produces various physiological alterations and the auditory system is one of the first observed. Hearing loss causes difficulties in speech comprehension, which in turn originates detachment from family and social groups. This isolation may lead to depression. This study's objective was to verify the association between hearing loss and depression in a group of non-institutionalized elderly. Individuals 60 years and older who performed a complete hearing evaluation, in an acoustic booth, and answered the Geriatric Depression Scale (GDS) questionnaire participated in this study. The audiometry used hearing thresholds for air (250Hz to 8000Hz) and bone conduction (500Hz to 4000Hz), by an Interacoustics model AD-28 audiometer. Using the same equipment, participants tested for speech audiometry (Speech Recognition Percent Index and Speech Reception Threshold). The acoustic immittance measures were performed with the Interacoustics model AT235 middle ear analyzer. The presence and level of hearing loss were determined according to the World Health Organization's (WHO) classification. The analysis of acoustic immittance measures used the classification proposed by Jerger (1970). The study evaluated 54 elderly people, 26 (48.1%) females and 28 (51.9%) males. Their ages varied between 60 and 84 with an average of 70.4 ± 7.16 years of age. Regarding their hearing level, 39 (72.2%) presented altered hearing thresholds, of those 17 (31.5%) had a slight hearing loss and 22 (40.7%) a moderate hearing loss. Twenty-five (46.3%) participants had signs of depression, 23 (42.6%) had slight to moderate depression and 2 (3.7%) severe depression. Data analysis demonstrated association between the presence of hearing loss and depression (p=0.016), considering that of the 25 (46.3%) elderly people with depression, 22 had hearing loss. Even though it is not significant (p=0.18), the association between the level of hearing loss was positive in relationship to the severity of depression signs. In other words, the larger the hearing loss, the larger the severity of depression signs. Data analysis demonstrates a tendency to this association, considering that of the 29 elderly people (53.7%) with absence of depression, the majority presented normal hearing thresholds (41.4%). Taking in to consideration the 23 (42.6%) elderly people with slight to moderate depression signs, only 3 (5.6%) presented normal hearing thresholds. The remaining had slight (14.8%) or moderate (22.23%) hearing loss. Individuals with severe depression (3.7%) presented slight (1.8%) or moderate (1.9%) hearing loss. Therefore, the study concludes that regarding the researched elderly people, there is a strong association between hearing loss and depression signs and a tendency to exist an association between the level of hearing loss and the severity of depression signs

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 77

ASSOCIATION BETWEEN DYSPHONIA AND HEARING LOSS IN MIDDLE-AGE AND ELDERLY PEOPLE

Authors

ADRIANE RIBEIRO TEIXEIRA¹, SILVIA DORNELLES¹, NATACHA SIQUEIRA¹, ALINE STANISLAWSKI SILVA¹, CAMILA MALLMANN¹, CAROLINE WÜPPEL¹, ISABEL CRISTINA BERGERI¹, ANDREA KRÜGER GONÇALVES¹, CINTIA DE LA ROCHA FREITAS²

Institution

1. UFRGS, Universidade Federal do Rio Grande do Sul
2. ULBRA, Universidade Luterana do Brasil

Abstract: Aging is a process marked by the decline in functioning of various organs of the body, among them hearing loss and vocal alterations like dysphonia. These disorders are usually diagnosed and treated by speech-language therapist and audiologist. There are indications that, in many cases, hearing loss and dysphonia are associated. The presence of hearing loss may significantly influence vocal quality, aside from the changes brought by aging, as a result of the tendency to increase the voice intensity (loudness), by the difficulties in its perception. Therefore, hearing loss may be a precipitating or aggravating factor of dysphonia. Based on these premises, this study's tried to verify if an association existed between hearing loss and dysphonia in a group of middle-age and elderly adults. The participants screened for hearing loss using a pure tone audiometry test in an acoustically treated booth. Hearing test used thresholds for air conduction (from 250Hz to 8000Hz) and bone conduction (500Hz to 4000Hz), to determine type and level of hearing loss. In order to measure the level of hearing loss the study used the classification proposed by the World Health Organization. To verify the presence of dysphonia, the participants performed perceptual-auditory analysis of the vocal type, from the point of view of three evaluators. The study's sample involved 27 elderly people, 21 (77.8%) females and 6 (22.2%) males. The participant's age ranged between 54 and 89, with an average of 68.5 ± 8.8 years of age. Among the participants, 23 (85.2%) presented hearing loss while 4 (14.8%) were normal. The number of participants with dysphonia, was the same, than those with hearing loss, 23 (85.2%) presented vocal alterations and 4 (14.8%) presented adapted voice, which means without signs of alteration. Data analysis demonstrated evidence of a strong association between dysphonia and hearing loss in the studied group (p=0,000). These results establish the need of joint action among speech-language therapist and audiologist, as well as reinforce the importance of interdisciplinary action for the care of individuals with voice and hearing disorders.

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 78

INTENSITY PERCEPTION OF TINNITUS AND TINNITUS HANDICAP INVENTORY RESULTS IN A GROUP OF ELDERLY PEOPLE

Authors

ADRIANE RIBEIRO TEIXEIRA¹, MICHELLE GASSEN PAULO NUNES³, CINTIA DE LA ROCHA FREITAS², ANDRÉA KRUGER GONÇALVES¹

Institution

1. UFRGS, Universidade Federal do Rio Grande do Sul
2. ULBRA, Universidade Luterana do Brasil
3. Centro Auditivo, Centro Auditivo

Abstract: The population aging is a phenomenon observed in both developed and developing countries. Increase in life's expectancy is accompanied by a series of physiological alterations, among them presbiacusis, which is often accompanied by tinnitus. Several authors reported association between tinnitus and the affected individuals' quality of life. This study's aimed to verify the association between intensity of the perception of tinnitus and the handicap level caused by this symptom in a group of elderly individuals, as well as to verify the influence of the sex variable in the level of handicap. In this study 36 elderly people (60 years of age and above) answered a questionnaire on socio-demographics and tinnitus and the Tinnitus Handicap Inventory (THI). Data analysis demonstrated that the major part of the elderly were female (72.2%). The average age was of 68.67 ± 6.84 years. Regarding tinnitus intensity, 16 (44.4%) described their tinnitus as weak; 13 (36.1%) as average and 7 (19.4%) as strong. In relationship to THI scores, 15 elderly (41.6%) showed a handicap level 1; 11 (30.56%) handicap 2; 4 (11.1%) handicap 3; 4 (11.1%) handicap level 4 and 2 (5.5%) handicap level 5. Analyzing the intensity perception of tinnitus described by elderly people and the level of handicap measured through THI, it was observed that there was no statistically significant association (p = 0.251). Likewise there was no association between sex and handicap level (p = 0.300). We concluded, therefore, that the intensity of tinnitus perception described by participants and sex were not determining factors for worsening the handicap caused by tinnitus.

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 79

STUDY OF OTOACOUSTIC EMISSIONS IN NORMALLY HEARING WORKERS OF A SHOE INDUSTRY EXPOSED TO INDUSTRIAL NOISE

Authors

ADRIANE RIBEIRO TEIXEIRA¹, TATIANA DAHMER², SIMONE BARCELOS TEIXEIRA²

Institution

1. UFRGS, Universidade Federal do Rio Grande do Sul
2. ULBRA, Universidade Luterana do Brasil

Abstract: A worker exposed to occupational noise risks his/her health and predisposes him/herself to present a range of auditory and extra-auditory effects caused by high levels of sound pressure. Among the auditory effects is hearing loss. Studies have shown evidence that the changes in otoacoustic emission examinations results can be detected before the lowering of audiometric thresholds. Therefore the goal of this research was to verify the presence of transient evoked otoacoustic emissions (TEOAE) in ears of normally hearing people exposed to occupational noise. For this study examined 87 ears of 53 shoe industry workers, stationed at the cutting sector. The decision to study this sector was due to the fact that noise was the only agent present. In other sectors of the industry there was concomitant exposure to noise and chemical products. The evaluation included the patient's medical history, meatoscopy, threshold tonal audiometry, measures of acoustic immittance and the study of transient evoked otoacoustic emissions (TEOAE). The study found that 94.25% of the ears presented TEOAE. There was no side (left or right ear) difference in the number of ears that presented TEOAE. Neither time worked at the industry nor sex were determining factors for the presence of TEOAE. It should be pointed out that all the ears that did not present TEOAE were of individuals exposed to noise for less than one year, suggesting that other causes were responsible for the lesion in external ciliated cells. The study concluded that almost all evaluated workers' ears presented otoacoustic emissions. Therefore, in this group, the exposure to noise was not determining for a lesion of the external ciliated cells. One of the factors that can determine this type of result is the preventive actions adapted by the company.

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 80

A STUDY OF OTOACOUSTIC EMISSIONS IN INDIVIDUALS EXPOSED TO NOISE AND CHEMICAL PRODUCTS

Authors

ADRIANE RIBEIRO TEIXEIRA¹, MICHELLE INÉS FRÖHLICH-HAMMES³, LUCIMAR PILOT DA SILVA BRUM²

Institution

1. UFRGS, Universidade Federal do Rio Grande do Sul
2. ULBRA, Universidade Luterana do Brasil
3. SESI - RS, Serviço Social da Indústria

Abstract: Chemical products are just as harmful as noise to the auditory system, and these factors may act isolated or in synergic form. Aside from audiometry, transient evoked otoacoustic emissions (TEOAE) may be useful in monitoring and preventing hearing loss, because the record of the TEOAE demonstrates alterations in the response before they are registered in hearing threshold. This study has the following objectives: to verify the absence of TEOAE in workers with normal hearing thresholds exposed to noise and/or chemical products, as well as to determine if there was an association between time at work and the absence of otoacoustic emissions. Initially we invited 315 workers of a chemical industry to participate in this study. The industry produces varnish, paint, enamel, and lacquer. Of those workers, 34 could not participate because of their hearing loss. Therefore, 281 normally hearing workers participated of the study, 74 with no risk exposure (administration), 38 exposed to noise, 40 exposed to chemical products and 129 exposed to noise and chemical products. All answered a socio-demographic questionnaire and participated in a meatoscopy, pure tone audiometry and TEOAE tests. The participants ranged in age between 21 and 59, and the length of time worked at the company varied from 6 months to more than 15 years. Among the evaluated workers, 56 (19.9%) presented absence of otoacoustic emissions, 8 (2.8%) being from the sector considered to be of no risk (administration); 8 (2.8%) were exposed to noise; 6 (2.1%) exposed to chemical products and 34 (12%) exposed to noise and chemical products. Along with workers with absent otoacoustic emissions, 9 (3.2%) worked in the company between 6 months and 1 year, 23 (8.1%) between 2 and 5 years, 10 (3.5%) between 6 and 10 years, 5 (1.7%) between 11 and 15 years and 9 (3.2%) for more than 15 years. We observed that, even with exposure to noise and/or chemical products, the majority of workers had otoacoustic emissions present. Analyzing the data according to the type of risk, in chemicals and noise sector there was more absence of TEOAE when



compared to other sectors, followed by the noise sector, indicating that the presence of noise in this company is more disturbing for in alteration of ciliary cells than the chemical factor. The stratification of workers according to the time worked at the company with otoacoustic emissions present revealed differences in the prevalence of absent TEOAE, because the larger number of absences was found in the group that is working for a period of 2-5 years in the company, followed by the 6 to 10 years group. This may be explained by the fact that a large proportion of workers that had been at the company for more than 15 years were part of the group that presented altered hearing thresholds and therefore, were excluded from this study. This indicates, however, that short periods of exposure may be sufficient to make TEOAE absent.

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 81

HORMONAL FINGERPRINT AND SOUND PERCEPTION: A SEGMENTATION MODEL TO UNDERSTAND AND PREDICT INDIVIDUALS' HEARING PATTERNS BASED ON OTOACOUSTIC EMISSIONS, SENSITIVITY TO LOUDNESS, AND PRENATAL EXPOSURE TO HORMONES.

Authors
DIANA DERVAL DERVAL

Institution
1. ISM, International School of Management

Abstract: A same sound stimulus of 6 kHz can be perceived 4 times louder by some individuals, and this in a group of age- and gender-matched subjects with no reported hearing disorder. Objectives: Some individuals are more sensitive to loudness and would benefit from an adapted listening experience. This study aimed at explaining the hearing differences among age- and gender-matched individuals with no reported hearing disorders. Method: The experimental group comprised of 16 Caucasian men in their thirties. The OtoAcoustic Emissions of the right ear were measured with a clinical OAE reader. The influence of prenatal hormones was measured on the right hand with a digital vernier calliper. Results: At 6 kHz, 4 subjects presented a Signal to Noise Ratio (SNR) higher than 25dB, 8 subjects presented a SNR between 15 and 24dB, and 4 subjects presented a SNR lower than 14dB. The subjects with the higher SNR reported being sensitive to high-pitched sounds and presented a hormonal fingerprint very testosterone- or estrogen-driven. The subjects with the lower SNR reported no sensitivity to loudness and presented a balanced hormonal fingerprint. Conclusion: It can be concluded that hearing differences among age- and gender-matched individuals is related to prenatal exposure to hormones. Key Words: OAE, SNR, Hearing, Loudness, Hormones, Hormonal Fingerprint, Digit Ratio

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 82

ELECTROPHYSIOLOGICAL HEARING ASSESSMENT IN A GROUP OF INFANTS WITH MYELOMENINGOCELE AND CHIARI II MALFORMATION

Authors
LUANA ARAUJO CRUZ ROSA, ANDREA TORTOSA MARANGONI, CYNTHIA BARBOSA LAUREANO LUIZ, LIGIA YURIKO NAMIKI, SABRINA ALVES LIMA, MÁRCIA RUMI SUZUKI, ROSANNA GIAFFREDO ANGRISANI, MARISA FRASSON DE AZEVEDO, DANIELA GIL

Institution
1. UNIFESP, Universidade Federal de São Paulo

Abstract: Introduction: Myelomeningocele or spina bifida is the most complex congenital abnormality in the central nervous system compatible with life. In the Chiari II malformation, the cerebellum and part of brainstem decollated downwards, in direction to the neck. This malformation occurs in nearby 90% of the patients with myelomeningocele and one in which five patients with this malformation develop signs and symptoms of cerebral dysfunction. Studies realized with electrophysiological measures of hearing showed that individuals who carry this malformation showed auditory pathway alterations at the brainstem level. Objective: To evaluate the integrity of auditory pathways and the electrophysiological thresholds of newborns with associated mielomeningocele and Chiari II malformations. Method: Seven newborns, male and female participated of the study, four full-term newborns and three pre-term with average of 42,6 weeks of post-conceptual age diagnosed both with mielomeningocele and Chiari II malformation. All the infants underwent evoked transient otoacoustic emissions (TOAE), auro-palpebral reflex and auditory brainstem response (ABR). The TOAE was performed with the equipment Echochek- ILO OAE Screener manufactured by Otodynamics using the "pass and fail" criterion of the equipment, which considers presence of otoacoustic emissions when the responses were 6 dB above of noise in the frequency bands. Auro-palpebral reflex was performed with agogo at 100 dB SPL and was observed the contraction of the orbicularis oculi with the presentation of the stimulus. The ABR was performed in the equipment Smart EP of Intelligent Hearing Systems with click stimuli of rarefaction polarity. Initially, auditory pathway integrity was investigated at 80 dB, considering the absolute latencies of waves I, III and V and I-III, III-V and I-V interpeak latencies. The lowest intensity capable of eliciting wave V with tracing reproducibility was considered as the electrophysiologic threshold. An electrophysiologic threshold of 30 dB was considered normal and for absolute and interpeak latencies the suggested norms of the equipment manufacturer were considered. Results: All the subjects showed presence of TOAE in both ears and 28,6% of the subjects showed absence of auro-palpebral reflex. Regarding to absolute latencies and interpeak latencies in ABR, 42,9% showed alterations in wave V, 85,8% showed alterations in the interpeak I-III and 100% of the subjects showed alterations in the interpeak III-V and I-V, revealing 100% of retrocochlear alteration. Regarding electrophysiologic threshold, 71,5% of the subjects showed threshold within the normal range and 28,5% showed abnormal thresholds. Conclusion: Newborns with mielomeningocele and Chiari II malformations show high occurrence of retrocochlear alterations and, thus, the assessment of evoked auditory potentials and evoked transient otoacoustic emissions are fundamental for the diagnosis and early intervention in this children.

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 83

AIR AND BONE CONDUCTION AUDITORY STEADY-STATE RESPONSE IN INFANTS WITH CONDUCTIVE ALTERATION

Authors
MICHELE VARGAS GARCIA, MARISA FRASSON DE AZEVEDO, JOSÉ RICARDO TESTA, LUANA ARAUJO CRUZ ROSA, CYNTHIA BARBOSA LAUREANO LUIZ

Institution
1. UNIFESP, Universidade Federal de São Paulo

Abstract: Introduction: Middle ear alterations in the first months of life deprive the child of important sensory stimuli essential to normal development. Early identification of hearing disorders has been increasingly more frequent because of the advent of hearing tests in neonatal scenario. Therefore, the improvement of audiological diagnostic techniques is mandatory, especially to measure the degree of auditory deprivation resulting from conductive alteration. The innovation in this area is the auditory steady-state response, which known by the facility and effectiveness in obtaining responses air and bone conduction thresholds. Objective: To identify air and bone conduction auditory steady-state responses in infants with conductive alteration. Method: Fifteen children, between zero and four months of life, from the program of newborn hearing screening of the Federal University of São Paulo - UNIFESP were evaluated. All the children, evaluated in natural sleep, have undergone evoked transient otoacoustic emissions, immittance measures, otorhinolaryngology evaluation and auditory steady-state response. Minimum levels of auditory steady-state response were established in 1000, 2000, 3000 and 4000 Hz using tone pips with a modulation ratio of 77 to 103 Hz by the equipment Smart EP of Intelligent Hearing System. Air conduction stimuli were delivered by insert earphone and the responses were registered with surface electrodes and the detection of the response was performed in the frequency domain by statistic tests. For bone conduction recording, the vibrator was positioned in the forehead, to record the best bone response, also with surface electrodes. Results: All infants showed absence of otoacoustic emissions, type "B" tympanograms with absent of acoustic reflexes. Otorhinolaryngology evaluation showed opacity or retraction of the eardrum with normal external auditory canals according to the age. The responses of steady-state by air conduction were registered between 40-50dBHL and the responses by bone conduction were registered between 10-15dBHL, all based in the equipment correction factors, evidencing a air-bone gap. The exam took approximately 80 minutes. Conclusion: It is possible to identify air and bone conduction auditory steady-state thresholds in infants from zero to four months. The air-bone gap identifies precisely the auditory impairment of the infant. This evaluation is extremely important for the differential diagnosis between the conductive and sensorineural hearing losses allowing the adequate intervention.

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 84

RESULTS OF A PROGRAM OF NEWBORN HEARING SCREENING IN CUIABÁ.

Authors
PRISCILA DE ARAUJO LUCAS RODRIGUES, VANESSA CRISTINA MORAES CASALENUOVO, JAZON BARACAT

Institution
1. CEDAC, Centro Diagnostico Auditivo de Cuiabá

Abstract: Introduction: The ability to communicate is a distinction of human existence, one of the largest contributors to the welfare of any individual. Within this context, hearing plays a key role, since it is considered the cornerstone on which to build the intricate system of human communication. In this sense, the hearing sensory deprivation in children involves not only their communication, but their potential linguistic, emotional and social. The Brazilian Committee on Hearing Loss in Children recommends that ensure the implementation of Universal Newborn Hearing Screening. The test should be performed in all children at birth or no later than 3 months of age and, if confirmed hearing loss should receive intervention until 6 months. Aim: To present the results in a program of newborn hearing screening in the city of Cuiabá in the period 2008-2009. Methodology: The data gathered refer to infants submitted newborn hearing screening by means of evoked otoacoustic emissions by transient stimulus, using the analyzer EOA Biologic. The tests stored in the computer service were analyzed for the number of infants who passed or failed at the screening, as well as the correlations with the same age and gender. Results: In low-risk group of 1979 newborns tested, 92% passed, failed 2% and 6% did not return to the service making the completion of stage screening and diagnosis inconclusive. In high-risk group, the 110 infants tested, 77% passed, 2% failed and 28% did not return to the service. Conclusion: The results of the program agree with that proposed by international and national references and contributes to a multicenter study in Brazil. Emphasized the importance of monitoring in the period after the screening, in order to avoid high number of children who do not appear in the diagnosis.

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 85

THRESHOLD PREDICTION IN CHILDREN WITH SENSORINEURAL HEARING LOSS USING ASSR, TB-ABR, C-ABR AND ACOUSTIC REFLEX.

Authors
ANA EMILIA LINARES¹, OROZIMBO ALVES COSTA FILHO², MARIA ANGELINA NARDI DE SOUZA MARTINEZ²

Institution
1. USP, University of São Paulo
2. PUC-SP, Pontifícia Universidade Católica de São Paulo

Abstract: Introduction: The mainly question regarding pediatric audiological diagnosis is determining procedures to configure reliable results which can be use to predict hearing thresholds by frequency-specific. Objective: To evaluate the accuracy with which auditory steady-state response (ASSR), tone burst auditory brain stem response (Tb-ABR), click-evoked auditory brainstem response (c-ABR) thresholds and acoustic reflex formulae predict behavioral thresholds in children with sensorineural hearing loss, using a within-subjects design. Methods: ASSR, Tb-ABR and c-ABR and acoustic reflex thresholds were recorded in a group of children with sensorineural hearing loss (23 children age 1 to 7, mean average 3 years). Evoked-potential and acoustic reflex thresholds were recorded and compared with behavioral, pure-tone thresholds. Results: The results suggested both ASSR (0.70- 0.93), and Tb-ABR (0.73 -0.93) thresholds had high correlations to pure-tone thresholds. There was a moderate correlation between c-ABR thresholds and average thresholds of 2 kHz e 4 kHz pure tone audiometry (0.83-0.89). The results suggested that the ASSR and behavior thresholds had low correlation with predict threshold using acoustic reflex formulae but a strong correlation with the presence of sensorineural hearing loss. Conclusion: The ASSR provided reasonably accurate predictions of specific frequencies behavioral threshold as the Tb-ABR. Combined with c-ABR and acoustic reflex for white noise may take the accuracy predicted behavioral threshold.

POSTER SESSION I - DATE: 29/3/2010 TIME: 8H00 - 18H00 - PANEL 86

SPEECH RECOGNITION IN ADULTS AND ELDERLY PEOPLE, HEARING AID USERS, WITH SEVERE HEARING LOSS, WITH UNI AND BILATERAL ADAPTATION

Authors
ALEXANDRE HUNDERTMARCK LESSA, KARINE THAÍS BECKER, ANA VALÉRIA VAUCHER, MARISTELA JULIO COSTA

Institution
2. UFSM, Universidade Federal de Santa Maria

Abstract: INTRODUCTION: The binaural adaptation provides advantages, which contributes to a more effective communication. Some patients use the hearing aid unilaterally, due

