البحث الرابع (بحث مشترك _ منشور دوليا)

Auditory Neuropathy Spectrum Disorder (ANSD): A Distortion Product Otoacoustic Emissions (DPOAEs) Study

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Bachground: Auditory neuropathy spectrum disorder (ANSD) is characterized by normal OHCs function as shown by intact cochlear microphonics (CMs) and/or otoacoustic emissions (OAEs); absent or grossly abnormal auditory brainstem responses (ABRs) and absent middle ear muscle reflexes. This study is designed to address whether the input/output function of distortion product OAEs (DPOAEs I/O) in ANSD patients is similar or different from normal hearing 6 subjects. This work included 2 groups: Control group (GI) composed of 20 normal hearing 7 subjects and Study group (GII) consisted of 20 patients with ANSD. All cases were subjected to 8 Basic audiological evaluation, DPOAEs I/O function recorded at four frequencies of 2f1-f2 and 5 9 intensity levels of L1 and L2. Results: DPOAEs amplitudes were significantly higher in ANSD 10 group when compared with control. The pattern of DPOAEs I/O function was different in ANSD 11 and it was dependent on the frequency and intensity of the stimulus. Conclusions: Despite 12 normal DPOAEs recordings in ANSD patients, their amplitudes and DP I/O function are 13 different from that of normal hearing subjects. This finding suggested different OHC pattern of 14 activity in ANSD patients.