

# Hearing disorders in Multiple Sclerosis patients

## Abstract:

**Introduction:** Multiple sclerosis (MS) is a neurological disease that causes sudden deaf. In this research auditory disorders were studied in the patients with multiple sclerosis (MS).

**Material & Method:** This cross sectional descriptive-analytical study was performed on 107 patients with multiple sclerosis in the range of 20-45 yrs. There were not history of trauma and middle ear disease in all cases. Sampling was randomized. A complete auditory evaluation including pure tone audiometry, speech audiometry, imittance audiometry and brainstem Auditory Evoked Potential were performed on patients.

**Finding:** In pure tone audiometry, 19.62% of cases had sensory neural high tone loss. In speech audiometry and imittance audiometry 18 and 31 cases were abnormal, respectively. 55.14% of cases had abnormality in BAEP. The most of abnormalities were prolonged latency of V, decrease of V/I amplitude ratio and poor reproducibility, respectively. With high rate of stimulation, 77.57% of cases were abnormal. Statistical analysis showed significant difference between latency of V and stimulation rate.

**conclusion:** According to findings of this research it seems that hearing evaluation is very important for follow-up and early rehabilitation of auditory disorder in patients with MS. Also auditory test battery especially BAEP with high stimulation rate are useful in the diagnosis, BAEP, High stimulation rate

**Key words:** Hearing disorder/ Multiple sclerosis

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