The 1st International Neuroinflammation Congress and 1st Student Festival of Neurosience

Shefa Neuroscience Research Center, Tehran, Iran, 11-13 April, 2017

The Neuroscience Journal of Shefaye Khatam

Volume 5, No. 2, Suppl 2

Poster Presentation

Progression of Hearing Loss in Experimental Meningitis

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***Published:* 11 April, 2017**

Abstract

Hearing loss and meningitis were correlate in some aspects. Hearing loss is the situation that can be shown in cochlear or retrocochlear defects. Cochlear hearing loss is caused by inner or outer hair cell damage (however cochlear hearing loss has another causes, such as defect of arterial spiral ganglion, basilar and tectorial membrane) and retrocochlear hearing loss has neural origin and meningitis is a serious disease in which there is inflammation of the meninges, caused by viral, bacterial or fungal infection (marked by intense headache and fever, sensitivity to light, and muscular rigidity). In 21 articles that reviewed patient with bacterial, viral and fungal meningitis underwent repeated audiological assessment such as audiometry and ABR (auditory brain stem response) recording. All cases of hearing loss were apparent at the time of the first assessment. The severity of hearing impairment varied from mild to profound and was frequently bilateral and irreversible. Both bilateral and unilateral hearing loss were noted. In these articles two types of hearing loss mentioned: Sensorineural and retrocochlear hearing loss. Hearing loss developed during the earliest stages of meningitis. The risk and severity of hearing loss increase with the duration of meningitis and suggested that the cochlear aqueduct is an anatomic pathway for the extension of infection from the cerebrospinal fluid to the cochlea.

Keywords: ABR, Sensorineural hearing loss, Meningitis

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