



Neuropathology

Cognitive impairment and quality of life in sensorineural deafness

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Background and aims: Sensorineural hearing loss (SNHL) is a category of hearing loss (HL) that often leads to difficulty in understanding speech. HL is a serious condition that not only diminishes a patient's quality of life but can also lead to lifelong disability. The aim of study to assess the prevalence of cognitive dysfunction in acute and chronic sensorineural deafness. **Methods.** We studied 41 patients, mean age 48.05 ± 16.9 year (19 women, 22 men), 20 of them with acute, 21 – with chronic SNHL as a result of acoustic trauma due to military action (in 19) and vascular injure (in 22). All patients had complete neurological and neuro-otological evaluation, including brain MRI, audiometry, air- and bone conduction, MoCA test and quality life assessment by MOS SF-36. We excluded subjects with total deafness, conductive deafness, previous history of neurological or psychiatric (stroke, tumor, dementia and other) compromise. **Results.** Average hearing levels of the audiograms did not differ significantly between the two groups. Neuro-otological symptoms included HL 30 dB, tinnitus (in 87.8%), vestibular symptoms (vertigo, dizziness, postural imbalance – in 31.7%). Average result of MoCA was 25.42 ± 2.8 in acute and 23.13 ± 3.32 chronic SNHL. Significantly difference observed in domains of attention and memory ($p < 0.05$). Decreased indicators of quality of life observed in both groups, but the decline in vital activity, social and emotional functioning was more significant in chronic SNHL ($p < 0.05$). **Conclusion.** SNHL are influence on cognitive dysfunction and quality of life which progressive with progressive hearing loss. More vulnerable is attention and memory.



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Carotenemi and neuropathy case report

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The 45-year-old female patient presents to the visit with numbness and a feeling of fatigue in the lower extremities.

Hardness and thickening of the soles of the hands and feet and their yellow color.

Laborator blood analysis shows high level of beta carotene.

The patient is the mother of a 23-year-old son, the soles of the hands and feet with corotenemia.

In the objective neurological examination, a decrease in patellar and achilles osteo-tendinous reflexes is observed. Superficial sensitivity reduced in the form of short socks.

Electroneurography of the inferior sides: Electroneurographic data of the examined nerves suggest axonal sensorimotor polyneuropathy of a metabolic etiology.

Carotenemia is a condition in which yellow or orange colored skin due to high levels of beta-carotene in the blood.

