

Cognitive Screening and Hearing Assessment in Patients With Chronic Tinnitus.

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Publisher: Korean Society of Otorhinolaryngology-Head and Neck Surgery
In: Clinical and Experimental Otorhinolaryngology (CEO), Volume 17, No. 1: 15-25, published online: February 2024
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Abstract:

Background: The study aimed to assess the relationship of tinnitus with hyperacusis with cognitive impairment as indicated by the Montreal Cognitive Assessment (MoCA) tool.

Methods: This multicenter cross-sectional study included individuals with chronic tinnitus from the “Unification of Treatments and Interventions for Tinnitus Patients” (UNITI) database. Participants were recruited from four different tertiary clinical centers located in Athens and Granada (Mediterranean group), as well as Berlin and Regensburg (German group). In total, 380 individuals with a diagnosis of non-pulsatile chronic tinnitus (permanent and constant tinnitus lasting more than 6 months) and no evidence of severe cognitive impairment (MoCA score >22) were enrolled. The evaluation utilized the following tools: MoCA, Tinnitus Handicap Inventory (THI), Hyperacusis Questionnaire (GÜF), Patient Health Questionnaire (PHQ-9), and the European School for Interdisciplinary Tinnitus Research Screening Questionnaire.

Results: There were significant differences in MoCA scores between individuals from the German and Mediterranean cohorts ($P < 0.01$), necessitating separate analyses for each group. In both cohorts, MoCA scores were significantly associated with education level, age, hearing threshold at 8 kHz, and THI. Furthermore, a significant correlation was observed between PHQ-9 scores and both THI and GÜF ($P < 0.01$ for both Germans and those from the Mediterranean).

Conclusion: Our findings suggest an association between tinnitus handicap, high-frequency hearing loss, and mild cognitive impairment. Additionally, PHQ-9 scores were associated with tinnitus and hyperacusis scores, independent of hearing loss thresholds.

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