

Estudio número 10

Asociación de pérdida auditiva relacionada con la edad con la función cognitiva, deterioro cognitivo y demencia.

La investigación epidemiológica sobre el posible vínculo entre la hipoacusia relacionada con la edad, el deterioro cognitivo y la demencia ha producido resultados dispares.

Los autores consideran relevante aclarar esta asociación, porque dicha hipoacusia puede ser un factor de riesgo que contribuye a la demencia clínica.

Este estudio, realizado en el Trinity College de Dublín, se propuso examinar y estimar la asociación entre la hipoacusia relacionada con la edad y la función cognitiva, el deterioro cognitivo y la demencia a través de una revisión sistemática y un metanálisis. Tras una búsqueda en las principales bases de datos, y selección de varios estudios de cohortes y estudios transversales publicados en literatura revisada, se excluyeron los estudios de casos y controles. Las estimaciones se combinaron mediante metaanálisis de efectos aleatorios.

Se valoró la hipoacusia mediante audiometrías tonales y medidas de evaluación objetiva de la función cognitiva, el deterioro cognitivo y la demencia. Cuarenta estudios de 12 países cumplieron con los criterios de inclusión. De estos, 36 estudios únicos con 20.264 participantes únicos se incluyeron en los metanálisis. Se encontró una asociación pequeña pero significativa para la hipoacusia en todos los dominios de la función cognitiva. La disfunción vascular y la comunicación verbal alterada pueden contribuir a la asociación entre la pérdida de audición y el deterioro cognitivo.

La pérdida de audición relacionada con la edad es un posible biomarcador y factor de riesgo modificable para el deterioro cognitivo y la demencia.

Se requiere investigación adicional y ensayos clínicos aleatorizados para examinar las implicaciones del tratamiento para la cognición, y para explorar los posibles mecanismos causales que subyacen a esta relación.

Association of Age-Related Hearing Loss With Cognitive Function, Cognitive Impairment, and Dementia: A Systematic Review and Meta-analysis.

Importance: Epidemiologic research on the possible link between age-related hearing loss (ARHL) and cognitive decline and dementia has produced inconsistent results. Clarifying this association is of interest because ARHL may be a risk factor for outcomes of clinical dementia.

Objectives: To examine and estimate the association between ARHL and cognitive function, cognitive impairment, and dementia through a systematic review and meta-analysis.

Data sources and study selection: A search of PubMed, the Cochrane Library, EMBASE, and SCOPUS from inception to April 15, 2016, with cross-referencing of retrieved studies and personal files for potentially eligible studies was performed. Keywords included hearing, cognition, dementia, and Alzheimer disease. Cohort and cross-sectional studies published in peer-reviewed literature and using objective outcome measures were included. Case-control studies were excluded.

Data extraction and synthesis: One reviewer extracted and another verified data. Both reviewers independently assessed study quality. Estimates were pooled using random-effects meta-analysis. Subgroup and meta-regression analyses of study-level characteristics were performed.

Main outcomes and measures: Hearing loss measured by pure-tone audiometry only and objective assessment measures of cognitive function, cognitive impairment, and dementia. Cognitive function outcomes were converted to correlation coefficients (r value); cognitive impairment and dementia outcomes, to odds ratios (ORs).

Results: Forty studies from 12 countries met our inclusion criteria. Of these, 36 unique studies with an estimated 20 264 unique participants were included in

the meta-analyses. Based on the pooled maximally adjusted effect sizes using random-effects models, a small but significant association was found for ARHL within all domains of cognitive function. Among cross-sectional studies, a significant association was found for cognitive impairment (OR, 2.00; 95% CI, 1.39-2.89) and dementia (OR, 2.42; 95% CI, 1.24-4.72). Among prospective cohort studies, a significant association was found for cognitive impairment (OR, 1.22; 95% CI, 1.09-1.36) and dementia (OR, 1.28; 95% CI, 1.02-1.59) but not for Alzheimer disease (OR, 1.69; 95% CI, 0.72-4.00). In further analyses, study, demographic, audiometric, and analyses factors were associated with cognitive function. Vascular dysfunction and impaired verbal communication may contribute to the association between hearing loss and cognitive decline.

Conclusions and relevance: Age-related hearing loss is a possible biomarker and modifiable risk factor for cognitive decline, cognitive impairment, and dementia. Additional research and randomized clinical trials are warranted to examine implications of treatment for cognition and to explore possible causal mechanisms underlying this relationship.

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