

Poster

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Poster 24

[P-24-05] Association between auditory impairment and risk of VLOSLP: a multicenter, retrospective cohort study

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Introduction: Very late-onset schizophrenia-like psychosis (VLOSLP) is defined as schizophrenia-like psychosis with onset after 60 years of age. It is a major functional psychosis in older adults, significantly impairing independence and quality of life. Growing evidence suggests sensory deprivation, especially hearing loss, may precipitate psychosis in later life. However, large-scale, population-based studies examining this relationship remain limited.

Methods: We conducted a retrospective cohort study using the Korean Observational Medical Outcomes Partnership Common Data Model (OMOP-CDM), which harmonizes electronic health records from over 50 million patients. Adults with documented auditory impairment were 1:2 propensity-score matched with controls without hearing loss based on age, sex, comorbidities, medication exposure, laboratory results, and composite risk scores. Incident VLOSLP cases were tracked following a one-year lag period. Center-specific Cox regression models were pooled using random-effects meta-analysis.

Results: A total of 11,722 hearing-impaired patients and 20,111 propensity score-matched controls from six medical centers were included. The analysis revealed a significantly increased risk of developing VLOSLP in patients with auditory impairment (Hazard ratio [HR] = 1.48; 95% confidence interval [CI] = 1.10 – 2.00; I² = 0.0%). Sensitivity analyses using 1:4 propensity score matching yielded consistent results (HR = 1.29; 95% CI = 1.00 – 1.67; I² = 0.0%), reinforcing the robustness of our findings across varying matching ratios.

Conclusion: Our findings indicate auditory impairment significantly increases the risk of VLOSLP, aligning with previous studies linking auditory impairment to psychosis. These results highlight the importance of routine auditory screening in elderly individuals and timely intervention with hearing aids if necessary. Further research is recommended to determine whether auditory rehabilitation through hearing aids can mitigate this risk by preserving sensory input and reducing vulnerability to late-life psychosis.