Progressive Auditory Verbal Agnosia Secondary to Alzheimer Disease

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A 70-year-old left-handed woman reported 2-3 years of word-finding difficulties, impaired verbal comprehension, and unimpaired hearing. She independently performed daily-living activities, not meeting dementia criteria (MOCA, 23). Examination revealed hesitant speech, mild anomia without word/object-knowledge loss and a normal writing sample. Written command-following ability was preserved with verbal-command following impaired. Spared environmental-sound recognition versus difficulty with spoken words indicated auditory verbal agnosia/pure-word deafness.¹ Neuroimaging revealed amyloid-beta-positive PET, focal atrophy on MRI, and focal flortaucipir uptake indicating tau accumulation in primary auditory cortex (Brodmann areas 41/42) known as Heschl’s gyrus (Figure). Study was approved by Mayo Clinic IRB with written informed consent.

References

Appendix 1. Authors

<table>
<thead>
<tr>
<th>Name</th>
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diagnosis establishment; revised
the manuscript for intellectual
content; supervision
Figure Multimodal neuroimaging in a patient with progressive auditory verbal agnosia.

(A) Reduced $[^{18}\text{F}]$-fluorodeoxyglucose uptake in left superolateral temporal lobe; (B) focal atrophy of left Heschl’s gyrus on MRI (arrow); (C) peak flortaucipir uptake in left Heschl’s gyrus with mild uptake in right Heschl’s gyrus
Progressive Auditory Verbal Agnosia Secondary to Alzheimer Disease
Neurology published online September 9, 2021
DOI 10.1212/WNL.000000000012783

This information is current as of September 9, 2021

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