

Supplementary Table 1. Univariate association of each factor with the degree of hearing impairment

	PTA		WRS	
	Beta (SE)	p value	Beta (SE)	p value
Duration, cognitive dysfunction	-0.72 (0.80)	0.369	0.45 (1.13)	0.695
Duration, Parkinsonism	-0.01 (0.77)	0.994	-0.06 (1.10)	0.956
Vascular risk factors				
Hypertension	2.06 (3.09)	0.505	-1.83 (4.37)	0.676
Diabetes mellitus	1.48 (3.28)	0.651	-0.68 (4.63)	0.883
Dyslipidemia	-5.45 (3.57)	0.130	7.17 (5.04)	0.158
Smoking	-4.92 (4.51)	0.279	12.41 (6.30)	0.051
MRI vascular markers				
Deep WMH	-0.17 (2.23)	0.941	1.35 (3.14)	0.668
Periventricular WMH	3.10 (1.91)	0.108	-3.78 (2.71)	0.166
Lacunes	0.50 (0.35)	0.154	-0.02 (0.49)	0.972
CMBs	0.27 (0.24)	0.260	-0.70 (0.33)	0.039*
APOE4 carriage	-7.66 (3.09)	0.015*	7.67 (4.39)	0.083
Cognitive status, demented	-2.10 (3.00)	0.486	-1.55 (4.25)	0.716
BDI	0.20 (0.16)	0.218	-0.45 (0.21)	0.038*
Comprehension dysfunction	8.25 (3.16)	0.010*	-9.38 (4.38)	0.035*
K-MMSE	0.90 (0.33)	0.008*	-0.29 (0.48)	0.549
ADCI diagnosis	-12.24 (2.72)	<0.001*	13.00 (4.00)	0.002*
LBCI diagnosis	-0.60 (3.42)	0.861	-3.69 (4.82)	0.446
Diagnosis				
Pure ADCI	-9.93 (4.06)	0.016*	13.34 (5.95)	0.027*
Pure LBCI	Reference		Reference	
Mixed ADCI/LBCI	-13.34 (3.14)	<0.001*	15.64 (4.59)	0.001*
Non-ADCI/LBCI	-0.57 (5.14)	0.911	9.42 (7.51)	0.213

Data are results of general linear models for hearing indices using each factor as a predictor after controlling for age, sex, and education.

* $p < 0.05$.

ADCI: Alzheimer's disease-related cognitive impairment, APOE4: apolipoprotein E gene E4 variant, BDI: Beck Depression Inventory, CMBs: cerebral microbleeds, K-MMSE: Korean version of Mini-Mental State Examination, LBCI: Lewy-body disease-related cognitive impairment, PTA: pure-tone average, WMHs: white-matter hyperintensities, WRS: word recognition score.