Abstract

Background: Difficulty in listening comprehension is a major audiological complaint of older adults. Behavioural auditory processing tests (APTs) may evaluate it.

Aims/Objectives: The aim was to assess the feasibility of administering Japanese APTs to older adults at otolaryngology clinics.

Material and Methods: Using computer programs interfaced with an audiometer, APTs (dichotic listening test; fast speech test, FST; gap detection test, GDT; speech in noise test; rapidly alternating speech perception test) were administered to 20 older adults (65-84 years old; mean 75.3 years) and 20 young adults at the 40dB sensation level. Monosyllable speech perception (MSP) and the Mini Mental State Examination (MMSE) were evaluated.

Results: APT results except for GDT were significantly correlated with MSP. The performance on each APT was worse in older adults than in young adults (p<0.01). The older adults with good MSP≥80% (n=13) or excellent cognitive function (MMSE≥28; n=11) also did worse on APTs (p<0.05). A ceiling effect was noted in the APT data, with FST showing a minimum ceiling effect and reflecting interindividual variations of data.

Conclusions and Significance: It is feasible to administer APTs to older adults who visit otolaryngology clinics. Among our Japanese APTs, FST may be suitable for further large-scale clinical studies.

Key words: auditory processing test, clinical feasibility for older adults, auditory and cognitive ability, dichotic listening test; fast speech test; gap detection test; speech in noise test; rapidly alternating speech perception test