LATERAL TEMPORAL ATROPHY IN MILD COGNITIVE IMPAIRMENT

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Background: Mild cognitive impairment (MCI) is a transitional state between normal aging and dementia and atrophy of the medial temporal lobe, which are considered as the predictors of Alzheimer's disease. A recent study reported that like medial temporal lobe atrophy, lateral temporal lobe atrophy is observed in the early stages of cognitive impairment. Therefore, we studied the incidence of lateral temporal atrophy and the neuropsychological characteristics of patients with mild cognitive impairment.

Methods: We selected patients with MCI who had undergone brain magnetic resonance imaging (MRI); the diagnosis of MCI was obtained according to Petersen's criteria. The patients with stroke, epilepsy, tumor, and Parkinson's disease were excluded from the study. Medial and lateral temporal lobe atrophies were assessed using the modified visual rating scales established by Scheltens et al.

Results: The patients included 4 females and 3 males aged between 62 and 87 years (average age, 74 years). Four patients were diagnosed with amnestic MCI and 3 with non-amnestic MCI. Medial temporal atrophy was graded as none to mild in 5 patients and moderate in 2, and lateral temporal atrophy was graded as none to mild in 4 patients and moderate in 3. Among the 3 patients with moderate lateral temporal atrophy, 2 showed significant language impairment.

Conclusion: Lateral temporal atrophy is common in MCI and may be related to poor language performance.