Prediction of progression in individuals with subjective cognitive decline using cortical thinning patterns

Eun Ye Lim
The Catholic University of Korea, South Korea

We evaluated the differences of cortical thinning patterns in individuals with SCD those who progressed to mild cognitive impairment (MCI) or AD [pSCD], those who remained stable [sSCD], and healthy normal controls (NC). Methods: We retrospectively recruited SCD subjects (14 pSCD, 21 sSCD) and 29 normal controls. Structural 3D-T1 weighted MRI was performed on single 1.5 Tesla scanner. Free surfer software was used to obtain maps of cortical thickness for group comparisons. Results: Compared to NC group, the sSCD group showed diffuse cortical atrophy through bilateral fronto-parieto-temporal area. The pSCD group showed more characteristic cortical atrophy in AD-vulnerable regions including the inferior parieto-temporal, middle temporal area. When the sSCD and pSCD subjects were compared, the former showed cortical thinning in bilateral medial frontal areas and the latter in right inferior temporal and left precentral areas. Conclusion: Our study showed that SCD subjects exhibit different cortical thinning patterns depending on their future prognosis.

e: pupplelub@catholic.ac.kr