P02-253

HIPPOCAMPAL CAVITIES IN ELDERLY SUBJECTS - PREVALENCE, EVOLUTION AND IMPACT ON COGNITION

F. Riese[1], O. Ballach[1], H. Suliman[1], H.-J. Geertz[2], H. Wolf[1,2]
[1]Department of Psychiatry Research and Geriatric Psychiatry, Psychiatric University Hospital Zurich, Zurich, Switzerland, [2]Universitätsklinikum Leipzig Klinik und Poliklinik für Psychiatry, Leipzig, Germany

Hippocampal cavities (HcC) are frequent findings in brain MRIs of elderly subjects. The prevalence, evolution and impact on cognitive performance of these cavities are unclear. Our study therefore aims at providing data on prevalence, morphological evolution and clinical significance of HcC. We used a population-based sample of nondemented elderly subjects aged 75-85 and a comparison group with Alzheimer's disease for cross-sectional analysis. All nondemented subjects were included in a prospective study (mean follow-up 3.2 years). HcC numbers and volume were recorded from volumetric T1w MRI scans. Serial MRIs were performed for a subgroup of subjects. Cognitive functions were assessed by SIDAM and CDR. Hippocampal and brain volume, medial temporal lobe atrophy, white matter lesions, ApoE genotype and vascular risk factors were considered as confounders. The prevalence of HcC in our sample was approx. 60% with no differences between cognitive groups. HcC volume was found to be a predictor of short-term episodic memory performance. The effect of HcC volume was non-linear with the highest risk for decrease in short-term memory associated with the smallest HcC volumes. Mean HcC number and volume remained stable during follow-up. However, we provide anectodal evidence for both cases with increase and decrease of HcC volume over time. In conclusion, small HcC may be an independent risk factor for decline in short term episodic memory performance in elderly subjects.

https://doi.org/10.1016/S0924-9338(11)72554-8 Published online by Cambridge University Press