Dokumenttyp: journal article

Autor(en) des Beitrags:
Lewczuk, P; Kornhuber, J; Vanmechelen, E; Peters, O; Heuser, I; Maier, W; Jessen, F; Bürger, K; Hampel, H; Frölich, L; Henn, F; Falkai, P; Rüther, E; Jahn, H; Luckhaus, C; Perneckzky, R; Schmidtke, K; Schröder, J; Kessler, H; Pantel, J; Gertz, HJ; Vanderstichele, H; de Meyer, G; Shapiro, F; Wolf, S; Bibl, M; Wiltfang, J

Titel des Beitrags:

Abstract:
We measured concentrations of Abeta peptides 1-42 and 1-40, and their ratio in plasma of patients carefully categorized clinically and neurochemically as having AD or other dementias with a newly commercially available multiplexing assay, characterized by reasonable laboratory performance (intra-assay imprecision in the range of 1.3-3.8% for Abeta1-42, and 1.8-4.1% for Abeta1-40, inter-assay imprecision for Abeta1-42, Abeta1-40, and Abeta1-42/Abeta1-40 concentration ratio in the range of 2.3-11.5%, 2.2-10.4% and 4.2-9.7%, respectively). Patients with AD or mild cognitive impairment of AD type (MCI-AD) whose clinical diagnosis was supported with CSF biomarkers (n=193) had significantly lower Abeta1-42 plasma concentrations (p<0.007), and Abeta1-42/1-40 ratios (p<0.003) compared to patients with other dementias and MCI of other types (n=64). No significant differences between persons with MCI of AD type and patients with early AD were observed, or between MCI of other types versus patients with early dementia of other types. Our findings reconfirm the hypothesis that
alterations of biomarker concentrations occur early in a preclinical AD stage and that these alterations are also reflected in plasma.