

ORAL COMMUNICATIONS

01 INTEREST OF CSF ABETA/TAU INDEX IN ALZHEIMER'S POSITIVE DIAGNOSIS. A. GABELLE^{1,2,5}, S. ROCHE^{1,3,5}, C. GÉNY², F. PORTET^{2,4}, J. TOUCHON^{2,4}, S. LEHMANN^{1,3} (1. CNRS, Institut de Génétique Humaine UPR 1142, Montpellier, France; 2. Service de Neurologie, CHU Gui de Chauliac, Montpellier, France; 3. Laboratoire de Biochimie, CHU Saint Eloi, Montpellier, France; 4. Faculté de Médecine, Montpellier, France; 5. The first two authors contributed equally to this work)

Background : Alzheimer's disease (AD) is a devastating neurodegenerative affection that is approaching epidemic proportions in the industrialized world due to aging of the populations. Recently, new revisited AD diagnosis criteria point out the major interest of CSF biomarkers. The dosage of tau, its phosphorylated form p-tau181 and amyloid A β 42 peptide in CSF have come to the fore. Based on A β 42 and tau values obtained using Innogenetics ELISA kits, a index called IATI could be calculated and seemed very interesting to discriminate AD from other dementias. Aim : To investigate the diagnostic value of CSF IATI in AD positive diagnosis. Method : CSF tau, p-tau181 and A β 42 biomarkers were analysed in a consecutive cohort of 167 patients with neurological disease. Eighteen AD and 46 non Alzheimer's dementias were identified in this population. The AD diagnosis was based on NINCDS/ADRDA criteria. Lombar punctures were performed after informed consent was obtained from the patient or the legal representative. The IATI was defined as $A\beta 42(240+1.18 \times \text{tau})$. The sensitivity, sensibility and ROC analysis were computed. Results : The IATI is considered pathologic if inferior to 1. The IATI sensitivity was above 90% in our series while its specificity was lower, around 60%. On the other hand, p-tau had a better specificity (>90%) but a lower sensitivity (close to 80%). Discussion : Depending on the clinical situation, the utilization of IATI, p-tau or both appears to be very interesting. The IATI<1 provides an excellent sensibility to confirm a positive diagnosis of AD in patients with strong clinical diagnostic presumption. Besides, when the diagnosis is doubtful, p-tau is a useful biomarker to identify AD from other dementias.