

Research from University of Palermo has provided new information about amyotrophic lateral sclerosis.



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According to recent research from Palermo, Italy, "High cerebrospinal fluid (CSF) and plasma levels of homocysteine (HC) have been reported in certain neurodegenerative disorders, such as Alzheimer's, Parkinson's diseases and, recently, amyotrophic lateral sclerosis (ALS). To assay the CSF and plasma levels of HC in ALS patients and controls, and to evaluate the relationship between HC levels and clinical variables of the disease."

"Cerebrospinal fluid from sixty-nine (M/F 1.87) and plasma from sixty-five ALS patients (M/F 1.83) were taken and stored at -80 degrees C until use. Controls (CSF = 55; plasma = 67) were patients admitted to our hospital for neurological disorders with no known relationship to HC changes. CSF and plasma from ALS patients and controls were obtained as a necessary step of the diagnostic workup. HC levels in CSF and plasma were assayed using a high performance liquid chromatograph (HPLC) and a fluorimeter detector. The median level of total HC in the CSF of ALS patients was 0.46 mc M, significantly higher than that of the controls (0.24 mc M, +91.6%, P< 0.001). A similar trend was observed when HC was assayed in plasma (ALS, 12.4 mc M vs. controls, 7.26 mc M, +70.8%, P< 0.001). The CSF and plasma HC levels showed no relationship with the disease progression, age at onset, and the site of onset," wrote F.

Valentino and colleagues, University of Palermo (see also Amyotrophic Lateral Sclerosis).

The researchers concluded: "Homocysteine is a biochemical marker in ALS, and it might be related to the pathophysiology of the disease."

Valentino and colleagues published their study in European Journal of Neurology (Elevated cerebrospinal fluid and plasma homocysteine levels in ALS. European Journal of Neurology, 2010;17(1):84-89).

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