

HIGH HOMOCYSTEINE PLASMA LEVELS IN PATIENTS TREATED WITH ANTIEPILEPTIC DRUGS

Siniscalchi Antonio,¹ Liotti Alessandra,² Gallelli Luca,² Davoli Alessandro,² Marigliano Norma M,² De Sarro Giovambattista²

¹Department of Neuroscience, Neurology Division, “Annunziata” Hospital, Cosenza, Italy

²Chair of Pharmacology, Department of Experimental and Clinical Medicine, Faculty of Medicine, University Magna Graecia of Catanzaro, Italy

Homocysteine (tHCY) is both a risk factor for cerebrovascular disease and an experimental convulsant agent. We analysed the tHCY plasma levels in epileptic patients treated with antiepileptic drugs. The tHCY plasma concentrations was significantly increase in treated patients respect to controls ($14,8 \pm 1,8$ vs $8,7 \pm 2,0$ μM ; $p=0,002$). Folate plasma concentration was different in treated patients and controls ($11,3 \pm 1,5$ vs $17,9 \pm 1,0$ nM; $p<0,05$), whereas serum vitamine B12 levels were the same. These data suggested that a long-term therapy with antiepileptic drugs could be able to increase both plasma tHCY and serum folate levels. So, we hypothesize that a vitamin supplementation in patients treated with anticonvulsant drugs could be able to decrease the plasma tHCY levels of with clinical benefits effects.