



## Increased serum S-100B and neuron specific enolase - Potential markers of early nervous system involvement in essential hypertension.

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Abstract: OBJECTIVES: To investigate the occurrence of subclinical neurologic involvement in patients with essential hypertension employing serum biochemical markers. DESIGN AND METHODS: Fifty patients with essential hypertension and 42 controls with no clinical evidence of neurological disease were recruited. Serum S100B protein and neuron specific enolase (NSE) were determined by employing immunoassay kits from CanAg Diagnostics AB (Sweden). Brain MRI and fundoscopic exploration were conducted. RESULTS: S-100B and NSE levels were significantly higher in hypertensive patients than in controls. In hypertensive patients, multivariate analysis revealed that NSE was independently associated with two variables expressing severity of hypertension: diastolic blood pressure and grade of retinopathy. Brain MRI studies demonstrated higher NSE levels in patients with more severe white matter lesions. CONCLUSIONS: Raised NSE levels are associated with a higher severity of hypertension and of white matter lesions, providing preliminary evidence that suggests the presence of silent brain damage in a subset of hypertensive patients.

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