

The Structure of the Geriatric Depressed Brain and Response to ECT

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Seven to twelve year follow-up of ECT outcome in patients with geriatric depression. Do these patients develop dementia?

Introduction

Depression and cognitive decline are highly prevalent in elderly as is comorbidity between the two. Depressed patients are at high risk to develop dementia. To date, knowledge has been limited on course and outcome in severe geriatric depression.

Objectives

The association between depression and dementia remains unclear. Both white matter hyperintensities (WMH) and medial temporal lobe atrophy (MTA) are associated with depression, mild cognitive impairment and dementia, which possibly explains a common underlying mechanism of these diseases. The objective of this study was to identify associations between WMH, MTA, dementia and mortality in patients with severe geriatric depression formerly treated with ECT.

Methods

Data of 92.1% of the former patients was obtained. A total of 51.3 % (39 out of 76) of former patients participated in the follow-up study. Cognitive decline was identified in patients seven to 12 years after ECT, using the Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE). WMH and MTA scores were available from the initial study.

Results

56.6% of the patients were deceased and 35.5% of the patients were alive during FU. 61.5% (24 out of 39) of the included patients showed cognitive decline and 17.9% (7 out of 39) of the included patients were diagnosed with dementia. Depression with psychotic symptoms was significantly associated with no cognitive decline at follow-up ($p=0.007$). WMH and mortality were significantly associated ($p=0.047$).

Conclusions

Depression with psychotic symptoms is associated with cognitive decline at follow-up and WMH before ECT – not MTA or dementia – increases mortality after ECT.