
CORRELATES OF COGNITIVE RECOVERY IN OLDER MEDICAL INPATIENTS

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Introduction/Objectives:

Cognitive impairment during acute illness in older patients is acknowledged, although factors that underpin this condition are less well studied.

Aims

To investigate the relationship between cognitive recovery and a range of clinical and biological variables.

Method: Observational and longitudinal study. Participants were consecutive patients aged ≥ 70 years assessed within 3 days of their admission to elderly medical unit and re-assessed twice weekly with the DRS, CAM, MMSE, APACHE II, APS, Barthel index, frailty scale. Cytokines and APOE genotype were measured in a subsample.

Results: 142 patients were analysed [mean age 84.8 ± 6.4 ; 47 (33%) male; 64, (45% with comorbid dementia)]. 55 (39%) experienced cognitive improvement, of which 30 (54.5%) had delirium while 25 had non-delirious acute cognitive disorder. Using bivariate statistics, subjects with more severe acute illness, lower IGF-I levels and more severe delirium were more likely to experience $\geq 20\%$ improvement in MMSE scores. When the criterion of cognitive improvement was a 3 point improvement in MMSE, those with more severe delirium, females and greater age were more likely to improve. Longitudinal analysis using any criterion of improvement indicated that improvement was significantly ($p < 0.05$) predicted by higher levels of IGF-I, lower levels of IL-1 (alpha and beta), lack of APOE epsilon 4 allele, female gender and the interactions of APOE genotype with IGF-I, and dementia with IGF-I.

Conclusions: Cognitive recovery during admission is not exclusively linked to delirium status, but reflects a range of factors. The character and relevance of non-delirious acute cognitive disorder warrants further study