

Cognitive Intervention/Rehabilitation

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Neurocognitive Rehabilitation of Anoxic Brain Injury Following Cardiac Arrest.

Objectives: We have demonstrated persistent cognitive impairments, particularly in executive function and memory, out of hospital cardiac arrest (CA). We investigated the efficacy of a structured program of rehabilitation on these deficits and associated disability.

Participants and Methods: Seven CA patients with moderate cognitive deficits at 12 months post-onset participated in the 10-week group program based on Goal Management Training (GMT). Composite measures for several cognitive domains were obtained before (T1) and after (T2), using alternative test versions when feasible. Dependent measures were T2-T1 cognitive change and patient and family responses to questionnaires probing daily activities, cognitive lapses and mood.

Results: There was modest, but significant improvement, on several executive and memory tasks, and in composite measures of executive function and immediate recall. Families reported improved recall, time estimation, organization and execution of daily activities, and less distractibility. This improvement was correlated with memory function - less benefit in patients with more severe memory impairment. There was a significant inverse correlation between apathy ratings and improvement in executive and memory domains.

Conclusions: GMT produced benefit in executive function, memory and daily activities in patients one year or more after anoxic brain injury. The greatest benefit was seen in patients with only mild to moderate memory impairment. Future investigations should focus on the durability of the improvement and the optimal timing of the intervention.

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