

INTENSIVE OCCUPATIONAL THERAPY PRODUCES A FASTER IMPROVEMENT IN UPPER LIMB MOTOR FUNCTION OF PATIENTS WITH SUBACUTE ISCHEMIC STROKE

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Abstract

Introduction: In ischemic stroke, upper limb motor deficit is one of the main contributors of disability. Recovery of motor function relies on neural plasticity – a spontaneous process, which could be enhanced by rehabilitative strategies. The first two weeks after stroke are the critical period during which the brain is most receptive to rehabilitation strategies.

Material and method: We identified a group of 20 patients with subacute ischemic stroke in the middle cerebral artery territory with comparable NIHSS scores, admitted in our Rehabilitation Hospital. The severity of upper limb motor deficit was assessed in each patient with Action Research Arm Test (ARAT), an instrument which permits quotation in points of motor deficit's intensity. We included only patients with ARAT score at inclusion between 22 and 42 points, suggesting a limited functional ability and important motor deficit in upper limbs. The patients were divided into two groups: one group (10 patients) received a standardized rehabilitation intervention (1 hour/day kinesiotherapy and 1 hour/day occupational therapy for 5 days/week, for 2 weeks), and a second group (10 patients) receiving the same rehabilitation interventions plus one additional hour of occupational therapy. Patient's motor abilities were assessed at inclusion and day 15, at discharge, using the ARAT score, stroke severity was assessed using NIHSS score.

Results. Our pilot study shows that the group of patients with one additional session of occupational therapy have a significant improvement in upper limb function assessed by ARAT test, compared with the group of patients with standard physical and occupational therapy. The NIHSS score also improved in both groups, but without significant difference between them.

Conclusion. Intensive occupational therapy has a significant contribution in improving upper limb functionality in patients with subacute ischemic stroke. ARAT score is a useful instrument in assessing upper limb functionality and in detecting even mild improvements of motor deficit obtained by various rehabilitation techniques.