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Motor Recovery of the Severely Impaired Paretic Upper Limb after Mirror Therapy in Sub-acute Stroke- A Randomised Controlled Trial

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This study investigated on the effectiveness of high-dose-mirror-therapy (HDMT) on the motor recovery of severely impaired paretic upper limb (UL) in patients during sub-acute stroke. It was a prospective assessor-blind randomized-controlled-trial. Patients admitted for first super-tentorial stroke for less than a month were included if they aged > 35, presented with severe to moderate UL impairment and able to follow instructions. The exclusion criteria were visual impairment, cognitive impairment, aphasia, visual neglect, and history of impaired UL function. Subjects were randomized to HDMT or control (CT) group. In addition to conventional rehabilitation treatment, HDMT group received 2 sessions of 30 minutes MT daily, 5 days a week for 4 weeks. During MT, subjects performed a standardized bilateral ULs exercise (BULE) while watching the reflective image of the non-paretic UL from a mirror placed between the ULs. The CT practiced the same BULE without mirror. The outcomes were Fugl-Meyer Assessment Upper Extremity (FMA-UE) and Wolf Motor Functional Test (WMFT) performed before and after the intervention. Within- and between group differences were analyzed by SPSS version 17 with level of significance at 0.05. Thirty-four subjects (HDMT=15, CT=19) completed the study. There was no difference between HDMT and CT in the demographic characteristics and baseline outcomes. Both HDMT and CT showed within-groups improvement in FMA-UE and WMFT after program but no between-groups difference showed. HDMT was not superior in promoting motor recovery of the severely impaired paretic UL of patients during sub-acute stroke when compared to CT involving similar intensity of BULE.

Biography

Chan WC has completed his M.Sc in Health Care in The Hong Kong Polytechnic University since 1997. He is now enrolled in doctoral degree in Health Care Science. Chan is currently a founding fellow of the Hong Kong College of Physiotherapy, and Chair of Neurology Speciality Group of Hong Kong Physiotherapy Association. He has presented his master thesis in local and international conference such as WCNR. He is interested in the field of clinical rehabilitation in stroke and other neurological conditions.

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