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MIRROR THERAPY OF UPPER LIMB FUNCTION: A CASE REPORT IN SUBACUTE POST-STROKEMarchese RR¹, Salazar APS¹, Rossato D², Almeida AG², Brondani R², Martins SCO²• ¹UFCSA; ²HCPA

Introduction: Stroke patients usually present an impairment on the upper limb (UL) sensorimotor function, which blunts daily life activities. This UL limitation is mainly due to collateral injury on the central nervous system and different therapies have been used in order to decrease this impairment. Recent research suggests that information provided by movement imagination and observation of might be an additional rehabilitation strategy that could be beneficial for motor rehabilitation after stroke. **Objective:** To verify the influence of mirror therapy (MT) on subacute post-stroke rehabilitation. **Case report:** N.C.M., female, twenty-one years old, right-handed, impaired left UL. The aforementioned patient was hospitalized on the Hospital de Clínicas de Porto Alegre (HCPA) to investigate the stroke cause one month before the admission. Three scales on the first and last day of therapy were used for the function evaluation: modified Rankin scale (mRS), modified Barthel index, and Fugl Meyer assessment for UL function. A closed box with mirror on one side and the hollow space to accommodate the paretic hand on the other side was used in this study. During MT, the patient was seated in front of the mirror box with the non-paretic upper limb facing the reflective surface and paretic UL placed inside the mirror box. The MT was performed daily for 40 min, 5 days per week during two weeks. The patient performed six different functional exercises for the forearm, hand and fingers, with two series of 20 repetitions each. The movements were realized bilaterally and the patient was encouraged to observe the reflection of the right UL on the mirror. **Discussion:** The patient showed improvements in all the tests performed when comparing before and after MT moments, respectively: 1 point on mRS (3/6 and 2/6), 10 points on modified Barthel index (80/100 and 90/100) and 22 points on Fugl Meyer for UL function (39/66 and 60/66). These improvements may be related to the fact that the movement observation promotes the activation of the somatosensory system and sensorimotor cortex. The stimulation generated by the mirror input replaces losses by altering perception, and thus assisting motor recovery. According to recent findings the stroke-related paralysis or paresis may be a learned factor (non-use or abandonment syndrome) that can be prevented by MT. Thus, the MT may be a strong ally to conventional physiotherapy for post-stroke UL impaired patients.

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