

Neurorehabilitation algorithms in patients with post-stroke hemiparesis and hemiparetic shoulder (a comparative study of eight neurorehabilitation complexes)

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Aim: Our goal was to evaluate the efficacy of application of different physical modalities and neurorehabilitation methods on independence in activities of daily living (ADL) in patients with post-stroke hemiparesis and hemiparetic shoulder. **Material & Methods:** We observed a total of 216 post-stroke patients with hemiparetic shoulder. We effectuate clinical approbation of different neurorehabilitation (NR) algorithms. Patients were randomized into eight therapeutic groups (27 per group). In all patients, the NR course (20 days) includes a basic physiotherapy complex. In group (gr 1) we applied only cryokinesitherapy; in gr 2 - physiotherapy and ergotherapy (occupational therapy). In the next groups we added some pre-formed modality: low frequency low intensity Magnetic Field (gr 3), Interferential Currents (gr 4), Ultrasound (gr 5), Deep Oscillation (gr 6), low-intensity Lasertherapy (gr 7), Functional electrostimulations of the deltoid muscle (gr 8). Patients were controlled before, during and at the end of the NR course (of 20 treatment days) and one month after its end using a battery of clinical methods and functional scales. **Results & Discussion:** The comparative analysis of results shows a significant reduction of pain, improvement of functional capacity and autonomy (Brunnstrom, Barthel); increase of the range of motion of the humero-scapular joint (goniometry). Cryokinesitherapy is effective on the orthopedic dysfunction of the humeral joint, ergotherapy is on the range of motion and the functional recovery of the upper extremity. In cases with intensive pain, the magnetic field and deep oscillation are most efficient; in humero-scapular periartthritis, ultrasound and laser therapy are used; in trophic alterations (osteoporosis of the humeral head) – interferential currents and laser therapy are efficient. Goniometrical indices (range of motion of the joint) are significantly increased by electrostimulations and ergotherapy. **Conclusion:** We must underline that the structured neurorehabilitation algorithms must be individualized in every case.

The objective of current work is to demonstrate and assess the viability of utilization of various modalities and techniques for the physical also, recovery medication (PRM) on freedom and personal satisfaction of neurological patients. We effectuate a creation, clinical application and approval of complex neuro recovery calculations in patients with neurological and with neuro careful conditions. Patients were separated into a great deal of gatherings and subgroups, in every one we applied an alternate neuro restoration complex, made by a synergic blend of characteristic and pre shaped physical modalities like electrical flows, laser, cryo, thermo operators, hydro, balneotherapy, peloido treatment, physiotherapy and word related treatment. Patients were controlled previously, during what's more, toward the finish of the neuro restoration

course and one month after its end utilizing a battery of conventional and contemporaneous target techniques like tests and scales for engine inadequacy, parity and coordination, useful grasp of the upper appendage, step and free movement, autonomy in exercises in day by day living (ADL) such as self assistance, family, expert and public activity discouragement what's more, tension, visual simple size of torment, vibroesthesiometry, thermosensibility, laser Doppler flowmetry, ICF assessment. In view of itemized subjective and quantitative assessment we demonstrated the adequacy of utilization of various neuro restoration programs on various sorts and levels of tangible, engine and utilitarian lack. Taking everything into account we emphasize on the limit of physical modalities for utilitarian recuperation and improvement of autonomy in regular daily existence of patients with illnesses and states of the sensory systems. Our objective was to assess the adequacy of use of various physical modalities and neurorehabilitation techniques on freedom in exercises of day by day living (ADL) in patients with post-stroke hemiparesis and hemiparetic shoulder. **Material and Methods:** We watched an aggregate of 216 poststroke patients with hemiparetic shoulder. We effectuate clinical approval of various neurorehabilitation (NR) calculations. Patients were randomized into eight restorative gatherings (27 for every gathering). In all patients, the NR course (20 days) incorporates an essential physiotherapy complex.

Conclusion: We should underline that the organized neurorehabilitation calculations must be individualized for each situation. Dynamic neurological issues like Parkinson's, dementia, tumors, and state of separated neurological occasions like strokes and awful cerebrum wounds can be treated with the assistance of neurorehabilitation. With the finishing of the intense phase of the treatment for mind injury, neurorehabilitation enables the patients to recoup rapidly and augmenting their psychological and useful capacities. This in the long run encourages the patients to arrive at their own objectives at a moderately brief timeframe. Procedure by which neuro rehabilitation works is the neuropsychologists are very keen on deciding the ways by which a person's cerebrum influences the person's conduct in their everyday life. The absolute initial phase during the time spent neurorehabilitation is a full evaluation that includes a specific arrangement of tests. A portion of these will test the general working of the cerebrum and some will decide explicit working of the mind. The neuropsychologists will use the outcomes from the tests done, collaborated with the comprehension of the patient's challenges and build up an exhaustive plan of the general treatment process.