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NEUROREHABILITATION

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Neurorehabilitation comprises activation of partially damaged brain area, bypassing of irreversible lesions and induction of new pathways and centers. Neurorehabilitation bases on the exact diagnosis of the damaged structures and the summary of the actual functional state. In the acute state of damage of the CNS the assessment of the functional state can be partially achieved by the neurological examination. CAT (and NMR) reveal the structural lesions, whereas EEG, evoked potentials and EMG the functional disturbances.

In the acute phase of cerebral damage, e.g. in a comatous state after brain injury, encephalitis, hemorrhage, ischemic lesions etc., the treatment has to concentrate on the stabilization of the vital functions and the avoidance of life threatening complications. However, simultaneously the patient has to be provided from secondary complications like increased muscle tone, pathological patterns of limb positions, contractures, compression of peripheral nerves, pathological ossifications and decubitus. This can be achieved by correct positioning, and tone regulating passive movements. As soon as possible the patient has to receive intensive verbal, optic, tactile and emotional stimuli.

For the second phase or post-acute phase of rehabilitation the patient needs to be dismissed from the intensive care unit. On the basis of repeated extensive neurological, neuroradiological, electrophysiological and psychological testing the individual deficiencies are revealed, which demand an individual rehabilitation program. In the so-called therapeutic community, a team of doctors, nurses, physiotherapists, ergotherapists and close relatives of the patient cares for the very specific defects of the patient. Supportive medication for the improvement of motor functions, mentation, therapy or prophylaxis of seizures etc. is complementary.

The third phase is called the phase of reintegration. There the patient is trained to become independent from the everyday support of the therapeutic community. Stepwisely he is reintegrated in the family life. The patient attends retraining programs for occupational rehabilitation. Neurorehabilitation concerns not only the physical handicap, but the entire personality of the patient. Therefore it requires an especially active performance in order to establish for the patient an utmost quality of life.

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