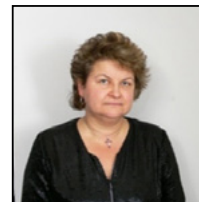


Balance, gait and grasp Neurorehabilitation in patients with Cerebro-vascular Diseases

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Abstract

Cerebro-vascular diseases are socially important diseases in many countries. The World Health Organization reports that stroke is one of the most frequent conditions, leading to a serious disability and reduced quality of life. Neurorehabilitation (NR) is an interdisciplinary thematic field between Neurology, Neurosurgery, Physical and rehabilitation medicine (PRM). According the White Book of PRM, Rehabilitation (including NR) is a functional therapy, based on a detailed functional assessment. Grasp, Balance and Gait recovery are important goal in NR-clinical practice, essential for the independence of patients in activities in daily living. Our objective was to emphasize the potential of neurorehabilitation as a combination of traditional and modern NR-methods, oriented to diagnosis (functional tests and scales, stabilometry and gait assessment; International Classification of Functioning) and therapy (proprioceptive neuromuscular facilitation; electrostimulations; mirror box, grasp training and occupational therapy; balance and gait training; exoskeleton and robotic rehabilitation). We will present some results and typical cases of our own clinical practice of 30+ years. The evolutive and clinical polymorphism of cerebrovascular diseases is the cause of our therapeutic difficulties and (in some cases) impotence on the way to functional recovery. We will explain the clinical significance of complex NR algorithms for different types of cerebrovascular diseases: transitory ischemic attack; middle and anterior cerebral artery stroke; cerebral lacunas; chronic vertebro-basilar insufficiency; medullar stroke; intra

cranial hemorrhage; rupture of cerebral aneurysm; etc.). The role of systematic medication and patients' education is underlined. We estimate the measures for prevention and treatment of possible complications (muscle and joint contractures; decubitus ulcers; deep vein thrombosis; pulmonary thromboembolism and bronchopneumonia; urinary infections). Author considers that the complex NR-algorithms are very useful for training the neuroplasticity, especially usedependent brain plasticity. We emphasize the impact of NR for functional recovery, amelioration of autonomy and quality of life of different types of patients with cerebro-vascular diseases

Biography:

Ivet Borissova Koleva is a medical doctor, specialist in Neurology and in Physical & Rehabilitation Medicine (PRM). Her PhD thesis and her thesis for Doctor-es-Medical Sciences (DMedSc) are in the field of Neurorehabilitation (NR). The title of the DSc thesis is: "Neurorehabilitation algorithms for functional recovery and amelioration of autonomy in patients with socially-important neurological diseases", with special attention on stroke, multiple sclerosis, Parkinson, diabetic polyneuropathy, peripheral radiculopathy due to spondylarthrosis and discal hernia. She is author of series of books and monographs in the thematic field of rehabilitation, grasp and gait rehabilitation, pain management, and NR. She has publications in national and international scientific journals. She is Editor-in-Chief of the Bulgarian scientific journal "Neurorehabilitation". Actually, she works as Professor in PRM at the Medical University of Sofia, Bulgaria.

Recent Publications:

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