CEREBRAL PALSY - CONTEMPORARY UNDERSTANDING
AND NEW TRENDS OF CP COMPLEX TREATMENT

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Cerebral Palsy (CP) is a diagnostic term used since 1861 by W. Little. The modern medicine development, the new understanding of the functional status of disabled people, of their participation in the everyday life and social activities have led to periodical changes in the definition of CP. According to the last one from 2004, CP is "a group of disorders concerning movements and posture, causing activity limitations that are attributed to non-progressive disturbances that occurred in the developing fetal or infant brain. The motor disorders of CP are often accompanied by disturbances of sensation, cognition, communication, perception, and/or behavior and/or by a seizure disorder."

There is no specific age of diagnosing someone with CP because of the high plastic abilities of an infant's brain, which let us to be very careful in terms of a CP diagnosis, and that was the reason why in Bulgaria it was established that from 0 to 18 months a passing diagnosis would be used. According to ICD-10, this is a "specific disorder in the development of motor function (F 82)", which demonstrated "a risk of CP" and the necessity of an early rehabilitation. It was established to diagnose with CP (G 80 from ICD-10) after completing 18 months, which means a life-long fixation of the coordination motor problems connected with deformation or blocking the positioning and/or certain movements of the body.

The methods of the Physical & Rehabilitation Medicine (physiotherapy and mechanic-therapy; ergo-therapy; magnetic- and electro-stimulation; thermo/cryo-therapy; vibrations and extracorporeal shock-wave therapy; hyperbaric oxygenation) aim to activate and build up new motor skills and everyday activities, to improve coordination and balance, to organize the schema of the body and the orientation in space, to normalize the muscle tone and to assure the passive and active range of motion. Aging with CP (both with young people and adults) opens new problems connected with pain, joint-bone deformations, osteoporosis and fractures, sexual dysfunctions and psycho-social miss-adaptation.

There is no special therapeutic standard for rehabilitation of CP. In 2010, a team of PRM-doctors and child neurologists elaborated in Bulgaria a "Consensus for Diagnostics, Treatment, Rehabilitation and Services of Children with CP". It was important that all specialists understand that a child diagnosed with CP needs to be given correct and adequate tasks, depending on his/her status, which are to prepare him/her to enter the next motor level. The best rehabilitation is the one which has certain priorities and goals.

Lately, a special discussion has been open about the motivation of the CP-child during treatment. There is a certain method called EMG-Feedback, which combined with over-placed functional electrostimulation, activates the inclusion of new muscle units in terms of voluntary contraction. The movement therapy and its dependency, especially on walk-training, on the therapist and his/her knowledge, experience and motivation, has found a new solution with "Robot-Assisted Treatment" where the therapist has a minimum intervention. Now the last two methods are being applied in Bulgaria too.
TONUS-ASYMMETRIC SYNDROME OF NEWBORNS AND INFANTS: DIAGNOSTICS AND THERAPY

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Tonus-Asymmetric Syndrome of newborns and infants is a damage of gross movements due to asymmetrical disturbance of muscle tone without assistance of central nervous system. TAS includes KISS-Syndrome (disturbance of the symmetry induced by head-joints), KUSS-Syndrome (disturbance of the symmetry independent of head-joints) as well as other aberrations. KISS is accepted as a dysfunctional syndrome due to variable segmental functional disturbance of key-sensor regions of the spine and axis-organs mostly connected with compulsory maternal position in the uterus, birth trauma of cervical spine and post-neonatal mis-positioning of the newborn. KISS leads to differently express vegetative and clinical symptoms as position-behavior deviations, orthopedic symptoms, neuromotor and manual-medicine signs. The numerous clinical signs require a large diagnostic program, including opinion of the head and body control from supine and prone perspective, neonatal-neurologic status, neurokinesiological checking according Vojta, labyrinth-staying reaction, neck-staying reaction, side-tilt test, manual diagnostic and others.

In terms of differential diagnosis, there is a discussion over the KUSS-blockade of sacro-iliac or thoracic joints as well as over asymmetric Galant or isolated skull asymmetry or a muscle rupture. It is most important to make clear the difference between TAS and asymmetry after the hypoxic-ischaemic injuries of the central nervous system due to different etiologic mechanisms and the need of specific treatment. The therapy of TAS includes reflex locomotion of Vojta, manual therapy, positioning and more.