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Comprehensive care of a child suffering from cerebral palsy

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ABSTRACT

Cerebral palsy is a syndrome caused by the damage of central nervous system in the early period of its development [1]. In cerebral palsy, motor disorders are associated by symptoms, being also a result of brain damage. Rehabilitation of children suffering from developmental disorders should be early, comprehensive and continuous. Child suffering from cerebral palsy should work with a team of physicians, therapists, that is, physiotherapist, psychologist, educator and other specialists adapted individually to the needs of a patient.

Key words: cerebral palsy, team work, paediatrician, physiotherapy, speech therapist.

INTRODUCTION

Cerebral palsy is defined as permanent, unprogressive, but not changing motor disorder, being a result of damage of developing central nervous system during pregnancy, childbirth or in the initial period of time after birth. It is a syndrome of diverse aetiology and clinical picture (2). In cerebral palsy, motor disorders are associated by symptoms, being also a result of brain damage. They include: epilepsy (30–65%), mental impairment (35%), eye disorder (50%), hearing disorder (25%), speech disorder (50%) and disorders of emotional sphere – irritability, aggressive behaviours [3,4]. Taking into account associated symptoms in children suffering from cerebral palsy, child therapy should be comprehensive. Comprehensive therapy of a disabled child should include the work of a team of specialists.

A physician should take part in determination of schedule of activities - paediatrician, neurologist and therapists within the scope of physiotherapy, psychology, special needs education, logopaedics and other specialists depending on the needs of a given patient.

Care of specific members of a therapeutic team increases the chances to achieve maximum potential in children suffering from cerebral palsy. Active participation of parents of a child in all activities is also invaluable [5,6,7].

Paediatrician and cerebral palsy

One of the first persons that new-born baby meets is a paediatrician. Such physician plays a very difficult role of the first diagnostician that may discover the possibility of diagnosis of cerebral palsy, and after examination made by a team of specialists, he/she helps a child on a day-to-day basis and plays a difficult role of a guide for parents, sending a child to proper specialists.

A physician, while diagnosing cerebral palsy, must have information about perinatal interview, type of neurological syndrome in a child, results of imaging tests of central nervous system [8]. A paediatrician plays an important role because proper assessment during postnatal check, allows to make an immediate decision about further examinations in the specialists and imaging techniques.

Physiotherapist and cerebral palsy

In accordance with general rules, rehabilitation of children should be universal, early, continuous and comprehensive. For rehabilitation to be universal and early, early finding of children that may suffer from cerebral palsy is the most important, that is, at the stage of developing motor disorders of central origin. Therefore, appropriate diagnostic approach is necessary, aimed mainly at early finding in population children with developing motor disorders of central origin [9,10]. Based on the assessment of child condition, we must be able to find current abnormalities, but also to predict what abnormalities may occur during developmental period [11,12,13,14].

Therapy of children suffering from cerebral palsy is a specific process because child learns movements in the conditions changed by dysfunction, additionally child is not able to use damaged parts of central nervous system and changing biomechanical conditions may easily lead to development of irreversible structural lesions.

The most important aspect is prevention of development and preservation of abnormal motor patterns and limited mobility and abnormal settings in the joints, leading to deformation of motor system [15,16,17]. Early rehabilitation is very important because development in changing conditions, without early and proper rehabilitation, inevitably leads to development of pathological motor activity. [18,19,20].

Proper improving treatment should be: early (started before the third month of life), comprehensive (conducted by a qualified rehabilitation team), continuous (conducted in the specialist institutions and continued at home), systematic and widely available [21,22,23,24].

Speech therapist and cerebral palsy

An essence of inability of proper functioning of a child in the school community is impaired linguistic communication that makes communication with environment more difficult [25].

The goal of a speech therapist is to determine a pathomechanism of disorder in children suffering from cerebral palsy, and to find basic defect determining impaired communication of a child with environment and make a diagnosis. Logopaedic research show that large percentage of children suffering from cerebral palsy have speech disorders of various pathomechanism depending on the origin of disorder [25]. Apart from improvement of motor system in children suffering from cerebral palsy, the sphere of verbal communication must be supported if there is such possibility and alternative communication must be introduced. In addition, an important aspect is development of cognitive processes (perception, memory, attention, thinking, perception) that enables the child to gain information necessary in the process of learning and building the knowledge about the world around him/her [25]. The most important strategy of logopaedic procedure is improvement of articulatory system, improvement of respiratory functions, improvement of phonation and lowering excessive psychophysical tension [25]. Logopaedic therapy is adapted individually to every patient depending on the problems and deficiencies.

CONCLUSIONS

Rehabilitation of children suffering from developmental disorders should not only be early, but also comprehensive and continuous. Proper rehabilitation that includes consistent therapeutic program gives children suffering from cerebral palsy the opportunity to become physically fit and partially independent. Early intervention prevents formation in children of additional abnormalities and preserving of improper motor development. With age, child potential is becoming lower and lower because central nervous system is no longer so plastic and becomes less susceptible to therapeutic activities. They are sufficient arguments for the idea of early, specialist, coordinated and long-term help for such child and his/her family.

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