



CONGENITAL CLUBFOOT IN CHILDREN: PSYCHOEMOTIONAL STATUS AND TREATMENT METHODS

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ABSTRACT

In children with congenital clubfoot, not only the movements of the ankle joint but also the entire musculoskeletal system's functions are impaired, which can lead to deformities in posture. Therefore, early treatment is crucial to prevent secondary complications of the disease. If the disease persists for a long period, it affects the child's walking ability, creating discomfort in movements, which in turn negatively impacts their psychoemotional state.

Relevance

In the context of orthopedic diseases, studying the lifestyle of patients, analyzing their psychoemotional state, and preventing potential psychological problems has become increasingly relevant. In musculoskeletal disorders, restricted movement and independence of children have a direct impact on their psychological well-being. Data from authors reveal that during the course of such diseases, indicators of daily activity and quality of life drop significantly (Savchenko M.A., Teterukov A.A., Neustroyeva T.G., Mamnova S.B.). This results in emotional distress, anxiety, insomnia, decreased work efficiency, and states of frustration. Deformities in children often place them in difficult situations, making it hard for them to adapt to life and their surroundings. Therefore, considering the psychoemotional status of patients during treatment is important for fully addressing congenital deformities in children, until they are able to walk properly. Conservative treatment approaches are mostly used for managing this pathology.

Congenital clubfoot is one of the most common congenital orthopedic diseases, characterized by severe disorders of the anatomical structure and functions of the bones, joints, muscles, tendons, blood vessels, and nerves of the foot. Children diagnosed with congenital clubfoot require early orthopedic treatment starting from birth.

Clubfoot in children is a common pathology affecting the foot and ankle region. Its treatment requires an individualized approach from orthopedists. The treatment outcomes depend on the proper alignment of the foot, the restoration of its anatomical features, and the stability of its function. Currently, the primary treatment method for congenital clubfoot is the Ponseti method, widely used by orthopedists. However, in severe cases of congenital clubfoot with associated neurological changes, abnormalities in foot bones, and improper tendon attachments, conservative treatment may not be sufficient. Therefore, it is essential to



carefully select the treatment approach, whether conservative or surgical, based on the specific characteristics of the deformity.

Study Objective: To improve the psychoemotional state of children through the treatment of congenital clubfoot.

Materials and Methods

In this study, we analyzed the medical records of 88 children treated for congenital clubfoot from the neonatal period up to 6 years of age at the Traumatology and Orthopedics Department of TashPMI, from 2015 to 2024. The deformities in the feet were evident from birth, with clear signs of supination, adduction, and equinus deformities. The children underwent diagnostic assessments including X-rays of the feet, and it was observed that with increasing age, the deformities of the foot bones became more pronounced, and in older children, the emergence of additional bone abnormalities was noted.

The diagnosis of congenital clubfoot is usually straightforward, as the deformities are visible immediately after birth, with typical early signs of supination, adduction, and equinus. As the child grows, these symptoms tend to worsen, leading to difficulties in walking, abnormal movement patterns, and muscle atrophy in the lower leg. The patient tends to walk with the outside of the foot touching the ground, leading to the formation of calluses.

If left untreated, the condition can lead to additional spinal and joint deformities.

Treatment

Both conservative and surgical methods were used for treatment. Conservative treatment was applied to 64 children (72.7%) under the age of one, primarily using the Ponseti method. The treatment involved applying a cast to the feet, followed by gradual corrections of the deformities in phases: first, supination, then adduction, and finally, equinus deformities. After the correction phase, Achilles tendon tenotomy was performed percutaneously to resolve the equinus deformity.

During the rehabilitation phase, physiotherapy, including massage, exercise therapy (LFC), paraffin treatments, myostimulation, and neurological treatments, was provided in an outpatient setting. Massage was used to reduce muscle tone, improve circulation, and prevent muscle atrophy. LFC exercises focused on gentle stretching and mobilization of the foot to correct the deformities gradually. Additionally, the use of orthotic devices helped to maintain the corrected position of the foot.

Conclusion

The use of the Ponseti method in the conservative treatment of congenital clubfoot results in significant improvement in the psychoemotional state of children, providing positive clinical outcomes.

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