ORTHOPEDIC INNOVATIVE METHOD OF TREATMENT OF CLUBFOOT

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Introduction

Clubfoot is one of the most common congenital deformities of the musculoskeletal system and is characterized by an equino-cavo-varus deformity of the foot. It remains an important problem in modern orthopedics because delayed or inadequate treatment may result in persistent deformity, impaired gait and disability.

According to the literature, if one of the parents has clubfoot, the probability of the deformity in a child is approximately 3–4%, while if both parents are affected, the probability may reach 15%. Clubfoot is more common in boys than in girls. Late parental referral and delayed treatment may increase the risk of complications and disability.

Aim: To reduce disability through early diagnosis of congenital clubfoot and early initiation of treatment using modern orthopedic methods.

Materials and Methods

The study included 20 children aged from 1 week to 7 years with congenital clubfoot who were treated and followed up at the Khorezm Regional Center for Rehabilitation and Prosthetics of Persons with Disabilities from 2020. There were 13 boys (65%) and 7 girls (35%).

The patients were divided into two groups. Group 1 included 12 patients who were diagnosed early and referred for treatment at an early stage. Group 2 included 8 patients who were born with clubfoot but presented for medical care at a later stage.

Treatment was performed using conservative and surgical approaches. The main conservative method was the Ponseti method, which includes serial casting, Achilles tenotomy when indicated, and subsequent brace therapy.

In Group 1, parents were informed about the deformity immediately after diagnosis. Treatment was started from the first week of life according to the Ponseti protocol. Serial casting was

performed in 4–6 stages. Achilles tenotomy was performed when necessary, followed by plaster immobilization for approximately 3 weeks and subsequent brace therapy.

Results

Good and satisfactory results were achieved in 11 patients (91.7%) in Group 1. One patient developed recurrence after the parents discontinued brace therapy without following the recommended regimen and without timely medical consultation. The patient was subsequently treated with repeat casting.

In Group 2, conventional treatment was used. In 2 patients (25%), complete correction of the equinus and adduction components of the deformity was not achieved.

Conclusion

Early diagnosis and timely treatment of congenital clubfoot significantly contribute to favorable clinical outcomes. The Ponseti method is an effective, minimally invasive and relatively simple method for the correction of congenital clubfoot. In our study, good and satisfactory results were achieved in 91.7% of patients who received early treatment.

The advantages of the Ponseti method include low invasiveness, relatively low cost and high clinical effectiveness. Cooperation between screening centers, obstetricians, pediatricians, orthopedic specialists and rehabilitation services allows earlier diagnosis and timely initiation of treatment, thereby contributing to the prevention of disability.