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DEVELOPMENT OF THE HIP JOINT AFTER FUNCTIONAL TREATMENT OF CONGENITAL HIP DISLOCATION IN INFANTS

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Abstract
The problem of restoring the anatomical integrity and functional fullness of the hip joint in children with various forms of dysplastic changes of congenital etiology is still very relevant, socially significant and difficult to resolve.

Introduction

The purpose of the study: to study the development of the hip joint after functional treatment and to identify the causes of abnormal development of the hip joint.

The work was based on the study of the formation of the pelvic-femoral joint in 51 children treated at the age of 3-5 months with functional methods.

The study was carried out in a consultative clinic on the basis of the Samarkand branch of the Republican Specialized Scientific and Practical Medical Center for Traumatology and Orthopedics.

Among the surveyed children, 35 (68.6%) were girls and 16 (31.4%) boys.

The study of radiographs of patients with congenital hip subluxation and dislocation performed after functional treatment and the observation in dynamics of changes in the individual X-ray state of the hip joint in different age periods, make it possible to judge the features of its formation.

On the basis of the study, 3 groups of hip joints were identified.

1- The group consisted of favorably developing joints, which, according to radiometric indicators in children, by the age of 2 years are close to the indicators of healthy joints.

2- The group consisted of joints with delayed development, in the dynamics of the development of which after 3 years the approach to a healthy joint was determined.

3- The group consisted of joints with unfavorably developing joints.

Based on the dynamics of hip joint indicators in 3 groups, we set ourselves the task of identifying those signs with the help of which it is possible to predict the development of the joint in advance for timely surgical interventions.

It is possible to judge the congruence of the articular surfaces only with X-ray measurement of the main parameters of the hip joint.

1. Acetabular angle. In a well-developing joint, 9-12 mis. - 230±30, at 2 years - 20±30, at 3 years - 19.80±20, at 4 years - 17.60. In joints with delayed formation at 2 years - 32.50±30, at 3 years - 30.50±30, at 4 years - 22.50. In unfavorably developing joints, this angle at 2 years and at 4 years is 400±30.

2. The congruence of the articular surfaces is also determined by the value of the cervical-diaphyseal angle (CDC) and the angle of antetorsion of the femoral neck (AT). With favorable

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development of the hip joint, the CDS changes insignificantly: at 6-12 months. - 1390±30, at 2 years - 1360±30 and at 4 years - 1360±30.

In joints with delayed formation at 6-12 months. - 1440±20, at 2 years - 141.50±20, at 4 years - 1390±30.

In joints with unfavorable development, the CDS is 1520±30 at 2 years, 1550±30 at 3 years, and 1560±30 at 4 years.

3. The angle of antetorsia is normal in children of all ages, it does not exceed 200±50.

In joints with favorable development, this angle at 2 years is 320±50, at 3 years - 300±30, at 4 years - 270±30.

In joints with delayed formation, the angle of antetorsion at 2 years of age is 390±50, at 3-4 years - 400±30. In joints with unfavorable development, antetorsion is 640±30 at 2 years, 660±30 at 3 years, 650±30 at 4 years.

4. The Wiberg angle reflects the degree to which the head is covered by the acetabulum. Its value depends on the degree of ossification of the roof of the acetabulum and its depth, on the degree of displacement of the femoral head. In favorably developing joints at 9-12 months. age it is 250±30, at 2 years it is 270±20, at 3 years - 290±30, at 4 years 300±30. In joints with delayed formation at 9-12 months. at age this angle is 210±30, at 2 years it is 230±30, at 3 years 250±30, at 4 years 260±30. In joints with unfavorable development, the Wiberg angle is equal to 9-12 months. - 100±20, at 2 years is equal to - 100±30, at 4 years also - 90±30.

5. The angle of vertical correspondence in favorably developing joints at 9-12 months. age ranges from 830 to 850, at 2 years it is 830±20, at 4 years 83.5±20.

In joints with delayed formation, the angle of vertical correspondence at 9-12 months. age is 720±30, at 2 years 720±30, at 4 years 740±30.

In unfavorably developing joints at 9-12 months. 650±30, 660±20 at 2 years, 650±30 at 4 years.

6. The coefficient of head coverage depends on the depth of the head insertion into the acetabulum and reflects the stability of the joint.

In favorably developing joints, this coefficient at 9-12 months. age is 0.94±0.03, at 2 years 0.93±0.05, at 4 years 0.92±0.03.

With delayed joint formation at 9-12 months. at the age of 0.74 ±0.03, at 2 years 0.76±0.03, at 4 years 0.77±0.03.

In unfavorably developing joints, the coverage coefficient gradually decreases with the growth of children. At 9-12 months. at the age of 0.72±0.03, at 2 years - 0.71±0.03, at 4 years - 0.65±0.03.

Treatment, which was carried out in children in the first (3-6) months of life, with good centration, excessive antetorsion undergoes reverse development to closer to the age norm, and the acetabulum develops well.

In children with delayed formation of hip joints, a satisfactory result was not achieved immediately, and after persistent treatment, it normalized in a few years.

In children over one year old (13-18 months), it is much more difficult to achieve good centration due to secondary changes (pathological antetorsia, flat depression). With such changes in the joint, satisfactory centration, which was achieved in the Lorenz position, was sometimes disturbed when lowering the legs.

Therefore, the normal development of the hip joint can and depend on the effective implementation of the preparatory stage for reduction and the correct choice of treatment tactics.

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Findings

1. Treatment started early and without complications, and in the process of treatment, satisfactory centration of the femoral head will lead to the normal formation of the hip joint.
2. Unfavorable development of the hip joint is caused not only by "dysplasia", but also by aseptic necrosis of the femoral head and its unsatisfactory centering in the acetabulum.

Therefore, the cure of a child with a good long-term result in most cases depends on the ability of orthopedists.

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