

MORPHO-FUNCTIONAL FOCAL DYSPLASTIC CHANGES OF THE KNEE JOINT IN ADOLESCENTS

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The purpose of the study is the identification of dysplastic changes of the bone system with functional disorders of knee joint in children and adolescents.

Clinical and anamnestic, instrumental and functional methods of examination of 86 children with diseases of the knee joint were analyzed. It was established that the risk factors for the development of complications are manifestations of connective tissue dysplasia, which require a comprehensive differentiated approach to treatment.

Indications of accented trauma were absent in most of the children. At admission it was determined that all children had hypotrophy of 4 head muscle on the side of the affected knee joint, naturopathica and hypermobility of the patella, instability of the knee joint in the frontal plane. The pain was localized in the region of the internal condyle of b/fibula. Clinical signs of damage to the menisci and ligaments were missing or questionable. One-third of the adolescents had synovitis. In radiation studies of the knee incongruence of the joints of the femur and tibia, worse under load, was determined. According to the MRI degenerative changes of the menisci and cruciate ligaments were revealed.

Objectively the children had asthenic physique, decreased muscle tone of the upper and lower limbs, valgus deviation (10–15°) and internal rotation of the tibia (up to 20°), PLANO-valgus setting of feet, hypermobility of peripheral joints. Posture was broken due to the increased thoracic kyphosis and lumbar lordosis. Motion in the cervical spine was limited by the rotation in both directions (up to 20–30% of normal mobility).

On radiographs of the spine those or other pathological changes were determined. In the cervical spine: the asymmetry of the joint C1–C2, Kummerle anomaly, saddle-like deformation of the side of the Atlanta masses, kyphosis of the middle department; platyspondyly; thorax kyphosis, scoliosis, wedge-shaped deformation of bodies of D6-9, the narrowing of the intervertebral spaces, subchondral hardening; in the lumbar — spina bifida occulta in L5 and S1 rear arches, anomalies of tropism, hyperextension of the sacrum.



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Thus, in a certain category of children "surgical" problems of the knee joint arise on the background of dysplastic changes. Treatment provided locally and symptomatically does not lead to recovery. An integrated approach is needed and the treatment according to biomechanical disorders caused by connective tissue dysplasia are necessary.

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