

ON THE ISSUE OF INJURIES OF THE CERVICAL SPINE IN CHILDREN

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ABSTRACT — The article presents data on the role of connective tissue dysplasia (CTD) as a predisposing factor of the complicated course of pregnancy and childbirth in women, birth trauma of the cervical spine in newborns. It was revealed that more than half of mothers (61.4%) and more than one third of fathers (34.1%) had external signs of connective tissue dysplasia in children with natal trauma of the cervical spine. The intranatal period is the shortest in ontogenesis, but very responsible not only for the mother, but also for the child being born, and the biochemical changes that occur in his body are able to change the ontogenetic adaptation.

MATERIAL AND METHODS

82 newborns were examined. The main group of the study was the newborn with a soft tissue injury of the cervical spine — 44 children. Soft-tissue segmental lesion at the cervical level was diagnosed in the presence of clinical signs of birth trauma in newborn children in the absence of structural bone changes according to the X-ray examination of the cervical spine. The control group was represented by 38 relatively healthy, full-term newborns with no signs of dysplasia of the cervical spine.

RESULTS AND DISCUSSION

Evaluation of genealogical, biological and socio-environmental factors determining health revealed their predominance in the main group along the mother's line (Fig. 1).

Among the children of the main group, the symptoms indicative of natal cervical inferiority were diagnosed: a short neck symptom in 34.1%, a torticollis in 11.4% of cases, and a protective tension of the cervical occipital muscles in 22.7% of children. The leading clinical syndrome among the examined main group was muscular hypotension, mainly of the upper humeral girdle, which was diagnosed in 100% of cases (15.8% in the control group).

With dynamic observation, muscle hypotension was replaced by physiological muscle tone in 3 months

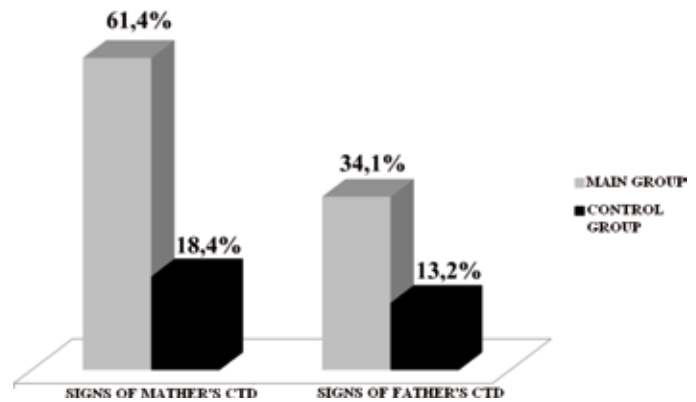


Fig. 1. Frequency of occurrence of signs of CTD in parents of the surveyed children, %

of life in 34.1% of children in the main group, at 6 months in 56.8%, and at 1 year in 90.9%. In 9 children with soft-tissue dysplasia of the cervical spine in the 3rd month of life, hypertension of the leg muscles was revealed in the form of a support for "tiptoe", plantar flexion of the fingers, revival of tendon reflexes. By 1 year in 3 patients the syndrome of pyramidal insufficiency was diagnosed.

Muscular hypotension was replaced by a physiological muscle tone at 3 months of life in 34.1% of children in the main group, at 6 months in 56.8%, and at 1 year in 90.9%. In 9 children with soft-tissue dysplasia of the cervical spine at the age of 3 months, hypertension of the leg muscles was revealed in the form of a support for "tiptoe", plantar flexion of the fingers, revitalization of tendon reflexes. By 1 year in 3 patients the syndrome of pyramidal insufficiency was diagnosed.

According to the X-ray data, the children of the main group had signs of soft tissue swelling of the neck, C2–C3 compression, and "staircase" instability of the cervical vertebrae (at later times).

Almost all the newborns in the study group had signs of perinatal central nervous system damage (90.9%), the symptoms of which appeared at the end of the early neonatal period and dominated the clinical picture, thus masking traumatic lesions, which creates certain diagnostic difficulties. While the control group had a cerebral ischemia rate of only 15.8%.

The presented data testify to the role of connective tissue dysplasia in the formation of functional and structural disorders in the cervical spine in the intranatal and postnatal periods. As a rule, they have no tendency to

self-correction, contributing to the early development of degenerative-dystrophic processes.

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