Work's goal: improvement of a life quality of children with spine deformations, by working out of surgical treatment algorithm.
Material and methods. 109 patients with severe scoliotic deformations have been pre- and postoperatively examined. The evaluation included collecting of anamnesis data, clinical examination, labs and imaging (standard radiography/ with functional tests, magnetic resonance) with a follow-up of 1 to 15 years. Children were aged between 5 and 17 years; they were predominantly girls – 69 (76 %).
Results. The main goals of surgical interventions were: elimination of the compression factor, deformation and disbalance correction and spine stabilization. The distant results of surgical treatment were good – 68,4%, satisfactory – 24,1% and unsatisfactory – 3,5%.
Conclusions.
1. Optimum methods of correction of difficult rigid scoliotic spine deformations were: forward spine release; dorsal correction, total fasetektomy (the bottom and top facing) throughout correction by Pontus' method and backbone fixation by a metal construction.
2. Surgical treatment of difficult juvenile scolioses began at 8-10 years old, with the following dorsal correction by "a growing construction", without posterior spine fusion execution.
3. In cases of congenital deformations primary operative defect's correction was carried out at children at the age of 5-7 years – "blocking spondylosyndesis" at curvature top with the follow-ing dorsal correction by "a growing construction" without posterior spine fusion execution.
4. Final correction of deformation, posterior spine spondylosyndesis and thoracoplasty are carried out on the end of spine growth.
Keywords: surgical treatment, deformation, scoliosis, children.

OSTEOSINTEZA NUSS IN SURGERY OF CHEST MALFORMATIONS IN CHILDREN

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Purpose. Improvment of the quality of life of children with chest deformities, by the application of advanced technologies in surgical treatment.
Material and methods. In the Clinic of Pediatric Vertebrology, Orthopedics and Traumatology during the years 2012-2015, 21 children aged between 5 and 14 years old with congenital chest malformations were operated: 12 (57,1%) children with excavated chest, 9 (42,9%) patients with chest deformity caused by scoliosis with "thoracic hypoplasia syndrome" -14 boys (66,7%) and 7 girls (33,3%).
Results. Good results (no complaints, functional disorders of the lungs and heart are not obvious, chest deformation was removed) - were observed in 19 (90,5%) patients. Satisfactory results (a slight deepening in the anterior wall remains, there are no complaints) - 2 (9,5%) patients.
Conclusions.
1. Conservative treatment or delayed surgical treatment led to irreversible disorders and complications of the functions of internal organs.
2. Surgical correction of severe chest deformities is the only method that allows to prevent the progression of internal organs dysfunctions.
3. Mini invasive Nuss procedure is the most beneficial method of correction of deepening chest deformities.
Keywords: chest malformations, surgery, children.

OSTEOSYNTHESIS IN CHILDREN AND TEENAGERS WITH TRAUMATIC SPINE DEFORMATIONS

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Work's goal: Rising of treatment's efficiency at traumatic deformations of thoracal and lumbar spine department at children by means of development differentiated surgical tactics.
Material and methods. 29 patients with spine deformations have been pre- and postoperatively examined. The evaluation included collecting of anamnesis data, clinical examination, labs and imaging (standard radiography/ with functional tests, magnetic resonance) with a follow-up of 1 to 5 years. Children were aged between 3 and 17 years. The indications to operative treatment were: spine instability (on F.Denis' scale) at which there are damages of two or more backbone's colons, according to AO/ASIF classification (Gertzbein S.D., 1994): Types AI – 3 (10,3%) patients, AII-AIII – 14 (48,3%), BI-BIII – 7