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

Nicolai Shavga, Nicolae Shavga
State University of Medicine and Pharmacy "Nicolae Testemițanu", Republic of Moldova

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

Nicolai Shavga, Nicolae Shavga
State University of Medicine and Pharmacy "Nicolae Testemițanu", Republic of Moldova

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

(24,1%), CII-CIII – 5 (17,2%) patients.
Results. The main goals of surgical interventions were: elimination of the compression factor, deformation and disbalance, correction and spine stabilization. The comparative analysis of the quality of life of patients (according to a questionnaire „EQ-5D"), before and after surgical intervention, has shown that the quality of life of patients improved, in comparison with the preoperative period, from 12,7±0,3 points to 7,7±0,1.
Conclusions.
1. In fresh cases of the complicated spinal - marrow trauma with mild and average degree of a neurologic symptomatology (degree of D on Frenkel) the preference was given to the closed, indirect decompression. At a serious neurologic symptomatology (A, B, C degree) carried out open decompression and revision of dural bag's contents.
2. The early surgical intervention leads to pain syndrome's cupping, restoration of a vertebral form, elimination of the spine deformation and stabilization of the damaged segment, using only back access.
Keywords: spine, traumatic deformations, children.

OSTEOSYNTHESIS OF FRACTURES ON THE SHORT BONES AT THE CHILD

Lev Stati, Mihai Popa, Veniamin Golub, Anatol Avram, Vitalie Slobodzean
State University of Medicine and Pharmacy "Nicolae Testemițanu", Republic of Moldova

Introduction: In this work, we included children with short bone fractures and some tubular bones smaller than the long bones. Treatment of children with these fractures is predominantly conservative, but there are cases that require surgical treatment with osteosynthesis.
Material and methods:
During the years 2011-2015 in the Clinic of Pediatric Orthopaedics and Traumatology, of the USMF„ Nicolae Testemițanu" of the National Scientific and Practical Center of Pediatric Surgery "Natalia Gheorghiu", orthopedic and surgical were treated 239 children with short bone fracture, children were divided by age 3-10 years – 57 children and 10 to 18 years – 182 children, by gender: girls 95, boys 139, with male prevalence being net.
Distribution according to bone injured was: clavicle fractures – 125 children; II-V metacarpal fractures – 86 children; carpal scaphoid fracture 3 children; fractures of metatarsals II-IV – 25 children.
Results and discussions:
In the case of fracture of the clavicle, metacarpals II-V, carpal scaphoid, metatarsals II-IV, children shows pain at the site of trauma in all cases of fracture, local swelling, sometimes subcutaneous crackles perception associated with abnormal mobility. In all cases of fracture of the short bones correct diagnosis was confirmed radiographically. Orthopedic treatment benefited 61 children, but 178 children followed surgical treatment.
All these cases of short bones fractures surgical treatment was performed: open reposition, adaptation of the fragment and fine osteosynthesis with Kirschner or Ilizarov cross brooches, they were followed in dynamics for at least 2-3 months after the removing of osteosynthesis material and cast immobilization, which was obtained a good result with restoration of the affected bone congruence in all children, data of signs of nonunion or other complications had not been recorded.
Conclusion:
1. Fractures of clavicle, metacarpals bones II-V, scaphoid bone, astragals bone, metatarsals bones, injury occurring as a result of the increased activity of the child, caused by street accidents, sports competitions, physical aggression.
2. The surgical treatment - of listed fractures is indicated in unstable fractures with displacement, open fractures, polytrauma and consists of open reposition, adaptation of fragments - fine fixation with Kirschner brooches, followed by immobilization in a cast.

THE PROBLEM OF DISEASES WITH HEREDITARY PREDISPOSITION OF DYSPLASTIC HIP IN CHILDREN

Ivan Zelenetsky, Alexei Khvisiuk
Postgraduate Academy of Medical Education, Clinical Regional Hospital of Orthopedics, Harkov, Ukraine

In this work there elucidated the systemic integrative research of joints diseases due to inherited predisposition. On the basis of conceptual analysis is decrypting: the dysplastic syndrome of instability a hip joint, dysplastic syndrome of necrosis and epiphyseolisis of femoral head. This investigation resulted in a radical change of ideas on the majorities of joints diseases due to inherited predisposition. Essential corrective amendments in to there diagnostically medical process with its foremost prophylactic orientation.
Key words: pathology of joints due to inherited predisposition, multiform conceptual model, dysplastic syndrome of femoral instability, dysplastic syndrome of necrosis and epiphiseolisis of femoral head.