

For EOS, the best results are obtained using guided growth rods or devices that ensures both the axial spinal corection and the thoracic cavity expansion.

Keywords

Scoliosis, spinal instrumentation, spinal instrumentation model, guided growth rods, thoracic expansion devices.

DISTAL FOREARM FRACTURES AT CHILDREN



V. Chitan*, A. Curca*, T. Pascova*, Gr. Rusanovschi*, D. Munteanu*, G. Negruta**

*SCMC „V. Ignatenco”, Chișinău, Republic of Moldova

**Clinic „Medicort”, Orhei, Republic of Moldova

Summary

The presentation elucidates the topicality, statistics, the tactics of treatment of distal forearm fractures at children.

A high frequency of fractures, difficulties in choosing the treatment strategy, issues of recovery and possible complications (premature closure of the growth plate, posttraumatic deformity such as Madelung, joint stiffness etc.) make the distal forearm fractures at children a current topic which deserves attention.

At S.C.M.C "V. Ignatenco" was made a statistics over a period of two years on a group of 488 children. From total number of traumatism, the ones of hands occupy ~ 52%. From hands fractures they constitute 38,92 %. The average age of children is 11,2 years, more frequently at boys ~ 70%. Up to 10 years metaphyseal fractures prevail, but at 12-15 year children-fractures at the growth plate. In 32% of cases both bones were fractured.

There were 5 cases of open fractures 1-st degree after G-A and 3 cases of Volkmann syndrome all resolved without fasciotomies. The peak of the traumatism is from June to August.

The diagnosis doesn't display great difficulties. An important value has the conservative treatment with osteoclasis if needed. An absolutely necessary indication for a open reposition at children are fractures with neuro-vascular disorders, advanced degree open fractures, the failure of closed reposition.

In our clinic the surgical treatment prevails, in particular closed reposition and osteosynthesis with wires under general anesthesia and are not used specific grown-up patient methods of osteosynthesis. We are guided by the principle that any angled displacement should be reduced. As a rule, when both bones of a distal forearm are fractured, the fixation with wires to the radial bone is performed. In case of a remaining displacement at the distal ulna, this doesn't create functional and recovery problems, it can just remain a cosmetic defect, which can be well reshaped in the long run. At the next stage, under local anesthesia, wires are removed, their ends are left above the skin, but further care and aseptic dressings are needed. The subsequent results of up to 2 years are rated as satisfactory and good, but they require a continuous assessment.

The basic objectives of the treatment are to restore bone alignment and clinical appearance, minimum soft tissue adjacent damage, preventing complications, pain relief, restore a functional forearm rotation, patient satisfaction and a good result afterwards.

TREATMENT OF CONGENITAL PSEUDARTHROSIS OF TIBIA USING AXIAL BONE GRAFT ON ELASTIC SPLINT, RH-BMP, COMPACTED WITH CABLES AND RECONSTRUCTIVE PLATES



Costel Vlad, Ileana Georgescu, Monica Dragoescu, Laura Dobre, Denisa Stefan, Gheorghe Burnei

Emergency Hospital for Children MS Curie, Bucharest, Romania

Introduction: given the recalcitrant behaviour of pseudarthrosis in congenital pseudarthrosis of tibia (CPT) there is no ideal solution to treat such challenging deformities. Reconsideration of already known principles using modern technology may generate new treatment methods.

Material and methods: the present paper presents the preliminary results of an original reconstruction procedure described by Prof. Dr. Gh. Burnei to treat large bone defects in paediatric orthopaedics. A case series study, the surgical technique, complications and illustrative cases are presented.

Results: 4 cases of 18 patients having CPT, surgically treated between 1997 and 2012, were operated using this technique. The principles of the method is to create an optimal osteoconductive and osteoinductive environment using bone autograft, bone allograft and bone graft substitutes and to provide a good stabilisation of the bones. The follow-up period of the study group ranged from 2 to 17 years. Three of the 4 patients are able to ambulate.

Conclusion: we believe that the present technique could be a reliable alternative to other procedures, especially in cases of repeated failures.

Keywords: bone graft; congenital pseudarthrosis of tibia; large bone defect; circumferential compression