

or limbs), in 4 children there was trauma as a result of a massive concrete construction fall over the lower limb. In a girl the disaster followed after inattention while working with an electric meat grinder; the right hand with fingers II-III-IV-V was stuck in the grinding space and broken in the "drum" with all finger and hand tendons. This was the only case where it was not possible to restore the affected segment. The rest of injured patients were subjected to primary surgical wound treatment with removal of non-viable tissue and washout with hydrogen peroxide, furacilin, aminocaproic acid, adaptation of fragments, fixation with pins or external devices, wound suturing or open wound treatment under the dressing. The follow-up treatment was lengthy; when indicated, the following measures were performed - staged necrectomy, skin plasty and bone reconstruction. No amputation was performed in any case.

Conclusion. Regardless of the extent of injury of the child's affected segment, specialists in the field should make maximum effort to save the segment and avoid amputation.

Keywords: extremely serious trauma, segment preservation.

OSTEOSYNTHESIS PECULIARITIES IN THE TREATMENT OF POST-TRAUMATIC PSEUDOARTHROSIS IN CHILDREN



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Objective of study. To appreciate peculiarities of osteosynthesis in pseudoarthrosis in children in order to improve treatment outcomes.

Material and methods. For over 45 years we have treated 161 patients with pseudoarthrosis in various segments after the initial treatment of the fracture in other health-care settings. Children with pseudoarthrosis of clavicle, diaphyseal pseudoarthrosis of humerus, forearm, femur and leg, primarily underwent poor surgical treatment with fixation of fragments with plates and screws, or intramedullary osteosynthesis without proper immobilization. In the clinic pseudoarthrosis treatment was performed by the Ilizarov method concurrently with the removal of deformities and inflammatory processes without intervening in the region of pseudoarthrosis, except pseudoarthrosis of clavicle, where grafting was used. In intraarticular fractures pseudoarthrosis developed after orthopedic treatment with plaster cast splint for immobilisation of the segment. In the clinic these patients underwent operations of restoration or reconstruction depending on the duration after fracture.

Results. In all patients with post-traumatic diaphyseal pseudoarthrosis, the Ilizarov method allowed to obtain good results (consolidation of fragments, removal of deformities, resolution of the inflammatory process, function restoration). In patients with pseudoarthrosis after intraarticular fractures lasting over 2 years after trauma, reconstruction operations allowed to get satisfactory results.

Discussions. Post-traumatic pseudoarthrosis requires surgical treatment to be resolved. There is an opinion that pseudoarthrosis of the capitulum of the humerus may not require surgery. This hypothesis is erroneous because valgus deformity of the elbow in these cases causes chronic trauma of the ulnar nerve, regardless of age (child, teen, adult). The resolution of pseudoarthrosis relies on the operation of correction and prevention.

Conclusion. Post-traumatic pseudoarthrosis prevails in children after intra-articular fractures (71.16%) and diaphyseal fractures (28.84%), its causes being orthopedic treatment of intra-articular fractures and surgical treatment with massive fixators in diaphyseal fractures. "Fracture" of metal construction at the fracture level is an absolute sign of pseudoarthrosis. To prevent pseudoarthrosis in intra-articular fractures, it is urgently needed to perform an open reposition through some mild methods and maneuvers, fine osteosynthesis and immobilization until consolidation is achieved.

Keywords: post-traumatic pseudoarthrosis, treatment, prophylaxis.

OSTEOSYNTHESIS COMPLICATIONS AND FAILURES IN CHILDREN WITH CLOSED LOCOMOTOR MONOFRACTURE



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Introduction. There is not any surgical method of treatment without failures and complications. The main cause of their increase is placement of massive metal fixators in the child, which are similar to those used in adults.

Material and methods. The failure of surgical technique was recorded in 12 children, including one with the fracture of the clavicle fixed with screwed plate and pins—with pin fracture and migration of the distal end forward into mediastinum. The