

Results

A total of cases were introduced in our study: 2 trochanteric fractures, 3 trochantero-diaphyseal fractures, 2 diaphyseal fractures, 1 distal periprosthetic fracture, 1 supracondylar fracture. Every case had own particularities and the therapeutical stages were: choice of surgical approach, method of implant ablation with minimal bone loss, more stable osteosynthesis, bone graft. The time of the operation should be as short as possible to minimize infection risk.

Conclusions

Pseudarthrosis of the femoral fracture with breakage of the implant is a tough situation for any surgeon. Understanding the causes which produced the implant failure and establishing a therapeutical strategy to correct them are the goal of the treatment.

Keywords: femoral fracture, implant failure, breakage, pseudarthrosis

OSTEOSYNTHESIS METHODS IN POLYTRAUMA WITH MUSCULOSKELETAL SYSTEM INJURIES



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Purpose: to analyze osteosynthesis methods in polytrauma and their performing time.

Material and methods: were analyzed methods and early results of surgical treatment in polytrauma patients treated in IEM, in period 2011-2015. Polytrauma were classified according to 4 regions in: cvadriregional – 2(2,6%), triregional – 19(24,7%), biregional – 56(72,7%). The study group was – 77 patients surgically treated, including 29(37,7%) women and 48(62,7%) men. Average age was 37.5 years, predominantly affecting working-age population (21-60 years) – 68 (88.3%), with highest incidence in group 18-30 years – 31(40.2%). Musculoskeletal lesions were: 140 fractures, multiple – 53(68.8%) and single – 24(31.2%); open fractures – 13(9.3%) cases. Fractures in upper limb and scapular-humeral belt were 56(40%), pelvis – 21(15%), lower limb – 57(40.7%) and spine – 6(4.3%) cases.

Results: immediate surgery – 13(16,9%) cases of open fractures, chosen osteosynthesis material being external fixator. Delayed surgical treatment – 64(83,1%) cases, performed at 1-19 days after trauma, with an average of 6.5 days. Osteosynthesis methods consisted of: intramedullary nail – 29(37,6%), DCS – 2(2,6%), plate and screws – 26(33,7%), modular plate – 7(9,1%), angular stable plate – 1(1,3%), transkelel traction – 5(6,5%), PFN – 2(2,6%), supporting plate – 4(5,2%), K-wire – 13(16,8%), screws – 4(5,2%). The immediate results were appreciated by X-ray aspect, being satisfactory in all cases.

Conclusions: Surgical treatment of MS injuries is divided into serial operations, respecting the order of priority of injuries depending on their vital risk (Damage Control Orthopaedics) and simultaneous surgeries performed along with deshock supported therapy (Early Total Care), which tend to settle early and definitively maximum of lesions in polytrauma. Duration and volume of surgical interventions for skeletal injuries in polytrauma should be chosen with consideration of injuries severity, patient's state and traumatic disease period.

Keywords: osteosynthesis, polytrauma, DCO, ETC.

TREATMENT OF DIAPHYSEAL FRACTURES OF THE HUMERUS



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Introduction: Humeral shaft fractures represent approximately 3% of all fractures and 20% of the humeral fractures. Treatment modalities have evolved greatly, however, fundamental management principles have remained the same over time. Currently the surgical techniques and treatment outcomes improved a lot. Despite numerous treatment techniques, plate osteosynthesis remains the gold standard for fixation of diaphyseal fractures of the humerus. Locked intramedullary rods have become very popular in recent decades due to the minimally invasive treatment trends. Thus today there are still controversies in the treatment tactics of diaphyseal fractures of the humerus.

Objectives: Evaluation of treatment of patients with diaphyseal fractures of the humerus.

Materials and methods: The study was conducted on a sample of 225 patients, between 01.01.2013-31.12.2015 in the Orthopaedics and Traumatology Clinic of IMSP IMU.

Results: Of the 225 patients, surgery was performed on 68.4% of cases and 31.5% – conservative treatment. The surgical treatment used the following methods of osteosynthesis: ORIF the anterior-lateral approach – 39.61%; ORIF through posterior approach – 35.06%; Closed intramedullary nailing – 22.72%; Extrafocal osteosynthesis with rod type apparatus – 2.59%.

Preoperative radial nerve injury -11.82%. One patient had postoperative radial nerve injury. Radial nerve revision was performed 3 months after osteosynthesis. Following conservative treatment: The infection of soft tissue - 1.40%; nonunion - 4.22% cases. After open reduction and plate osteosynthesis: operative wound infection - 3.47%; nonunions - 2.60%.

Conclusion: Conservative treatment so far is the method of choice of diaphyseal fractures of the humerus, but does not provide satisfactory reduction of bone fragments and no ability to prevent secondary movements. The contemporary "Surgicalization" trends have been obtaining satisfactory results in the treatment. The success rate depends not only on the tactics that have been chosen, but also of the strict compliance with indications and contraindications to treatment methods.

Keywords: humerus, fracture, treatment.

METHODS OF SURGICAL TREATMENT OF TROCHANTERIC FRACTURES



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Aim of the study. Evaluation of the surgical treatment of trochanteric fractures obtained during 2013-2015.

Materials and methods. During 2013-2015, 119 patients with trochanteric fractures (Evans classification) were treated in the Department of Orthopaedia from the Institute of Emergency Medicine and the Hospital from Balti. The study group consisted of: 79 females (66.4%), 40 males (33.6%). The mean age was 75.96 years. Out of the total number of patients, 101 patients (84.9%) underwent surgical treatment. The following fixation was applied: DHS – in 35 cases, 95' blade-plate – in 17 cases, 135' blade-plate – in 3 cases, DCS – in 5 cases, Gamma nails – in 14 cases, PFN – in 17 cases. Thirty-one patients (30.7%) were treated by minimally invasive methods.

Results. Immediate results were appreciated by X-ray, distal results were appreciated using the Harris Hip Score. Division of the results was: good in 46 cases, satisfactory in 10 cases, non-satisfactory in 2 cases. The following complications were encountered: joint stiffness in 2 cases, slow consolidation in 3 cases, pseudoarthrosis in 2 cases. Non-satisfactory results were found in patients treated with plates. Mean value of the Harris Score was 86%.

Conclusions. The rate of trochanteric fractures is higher in males than in females. Osteosynthesis with PFN and Gamma plates are reasonable in treating trochanteric fractures. Intramedullary nails are characterized by minimal trauma, minimal hemorrhage and minor risk of perioperative complications. Fixation methods with different dynamic fixators show good results.

Keywords: trochanteric fractures, osteosynthesis

THE RESULTS OF LOCKED INTRAMEDULAR NAILING OSTEOSYNTHESIS IN LONG TUBULAR BONE FRACTURES



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The aim of this study: were the analysis of the results in healing of diaphyseal long tubular fractures by osteosynthesis with intramedullary locked nails in patients treated in IEM.

Materials and methods: during the period of 2010-2015 years in the department of Orthopaedia of IEM there were examined and treated 314 patients with diaphyseal long tubular fractures (329 fractures on different levels) treated by intramedullary osteosynthesis using locked intramedullary nails. The group was consist of 203 (64,665%) male and 111 (35,35%) female patients. Average age was 40,4 years old (18-89 years old). The distribution by fractured segments is: humerus – 37 (11,3%), femur – 159 (48,3%), tibia – 133 (40,4%) patients. In 20 (12,6%) cases the femur was treated by retrograde osteosynthesis and in 130 (81,8%) – anterograde and in 9 (5,6%) cases – by combinant method Betisor-Darciuc. In 131 (98,5%) cases the tibial shaft fractures were fixated by anterograde and in 2 (1,5%) cases – combinant methods. All the humeral shaft fractures included in the study were fixated anterograde.

Results: according to functional scores LEFS and DASH the results are distributed as excellent in 294 cases (89,36%), good in 33 cases (10,03%), unsatisfactory in 2 cases (0,61%). As the complications there were inregistered: instability of proximal femoral screw – 3 cases, damage of femoral nail -1case, damage of tibial nail – 1 case, instability of humeral fixator – 1 case.