result, a lot of young patients come to our clinic with severe spine deformities which can be treated only by surgical intervention.

Methods: A primary orthopedic examination was performed of 1398 pupils, aged from 7 to 18: 728 girls (52,07%) and 670 boys (47,93%). The screening procedure combined the visual inspection of the trunk in 6 positions, including the Adam Forward Bending Test and the scoliometer measurement of angle of trunk rotation (ATR). Seven degrees of ATR was chosen as cut-off point for referral to radiography.

Results: Fifty seven (4,07%) pupils were found positive on both standing, forward bending test and scoliometer measurements > 7°. There were 41 (71,93%) girls and 16 (28,07%) boys. Fifty four (3,86%) were confirmed with spine deformity on standing radiographs, from which 39 (72,22%) girls and 15 (27,78%) boys. 2 girls and 1 boy had normal spine curvatures on X- ray examination (false positive). Individual treatment program are to be elaborated for the each patient.

Conclusions: School spinal screening programs are used in many countries around the world for early diagnosis of spinal deformities, they establishing this pathology at the beginning when physical exercises and brace therapy are helpful; reduces the necessity of surgical treatment. In spite of intensive development of many instrumental methods for orthopedic examination the main method is the physical one with scoliometry. We have just begun this difficult work and hope to cover the entire young population of the Republic of Moldova.

Keywords: spinal screening, scoliosis, orthopedic examination.

SURGICAL TREATMENT OF THE INTRA-ARTICULAR FRACTURES OF THE DISTAL FEMUR, TYPE C (AO)

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Introduction: Distal femoral fractures occur usually in two patient populations: young people, especially young men, after high-energy trauma, and elderly persons, especially elderly women, after low-energy injuries. In the older group, most of the injuries occur after moderate trauma such as a fall on a flexed knee. In the younger group, distal femoral fractures occur after high-energy trauma. These fractures are often open, comminuted, and most probably the result of direct application of load to a flexed knee. Most are caused by vehicle accidents, including motorcycle accidents, but they can also result from industrial accidents or falls from heights. Most of these patients are younger than 35 years, with a definite male preponderance. Surprisingly, the degree of comminution in the supracondylar region is often equivalent in both these groups. However, younger patients experiencing high-energy trauma have a greater incidence of additional intra-articular disruption or segmental or more proximal shaft comminution.

Material and methods: During 2010-2011 in NSPCEM were treated surgically 66 patients with distal femoral fractures, 31 patients with intra-articular fractures (AO type C1-2, C2-19, C3-11); 19 were men and 12 women, aged 17-81 years. Mechanisms of injury were vehicle accidents – 19 cases, accidents at work – 2 cases, catatrauma – 1 case and, habitual trauma – 9 cases. Principles of minimally invasive osteosynthesis of distal femur were used in 1 patient, TARPO procedure – in 7 patients, retronail – in 4 cases, the Ilizarov apparatus – in 1 case, plate osteosynthesis through a lateral approach – in 19 cases. All patients were operated in supine position. Indirect reduction of the fragments (in case of minimally invasive osteosynthesis, TARPO and retronail) was performed by applying a roll under the knee, that permitted a flexion at 60^0 and on orthopedic table, using skeletal traction system through tibial tuberosity with idling leg.

Results: In all cases the reduction of the articular surface (main objective) and fixation of the femoral diaphysis were achieved. In case of classic approach (19) this goal was achieved through a large incision, elevation of the vastus lateralis, ligation of the perforator vessels, soft tissue stripping, and medially placed distractors. Minimally invasive procedures (MIPO, TARPO, retronail) provide a gentler approach to soft tissues, with best results of union.

Conclusions: The goal of the treatment of a metaphyseal-diaphyseal fracture does not lie in obtaining of a "beautiful" postoperative radiograph; it consists of the restoration of the function of the respective limb in the shortest time. Minimally invasive techniques contest the indications in complex distal femoral fractures type C/AO, representing, in most authors' opinion, the best and preferred methods of surgical treatment.

Keywords: distal femur, intra-articular, TARPO, retronail.

CALCANEAL FRACTURES: PARTICULARITY OF EPIDEMIOLOGY

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Introduction: Fractures of the calcaneus are the commonest fractures of the hindfoot which have low incidence, but frequently require complex reconstructive surgery, and cause significant longterm disability. These occur most often in young individuals, and continue to have devastating consequences for many patients.

Purpose: The aim of this study was to review the epidemiology of injury.

Methods: Data were collected from the database of National Scientific-Practical Center of Emergency Medicine, in the period between years 2009-2011. Over this period 226 patients were treated in our unit. Details about patients were retrospectively recorded, together with details of their injury and primary treatment.

Results: Analysing 226 care histories of the patients with calcaneus fractures it was determined that most (85,8%) were intraarticular (thalamic), 22 patients(9.7%) extrathalamic, 4 patients with combinate bilateral fractures and 6 patients without dislocations. Fractures were much commoner in males, weith a male to female ratio of 4:1 and the mean patient age was 45 years (43 in males, and 48 in females).Over three-quarters of the calcaneal fractures were isolated injuries, and 16.1% had multiplesystem injuries. Of the 226 fractures, 12 (5.3%) were open. The most common mechanism of injury was a fall from height – 92.9% of patients.Conservative treatment of calcaneal fractures was applied on 78.3% of patients.

Conclusions: This study is limited to a retrospective nature of data collection,and inevitably some information was not recorded in the case reports.

Keywords: Calcaneus, Fracture, Epidemiology.