



Dear colleagues, dear readers!

In the editorial column we are pleased to announce publications presented in the present issue. With appreciation we note expansion of papers geography, relevance of scientific works and thorough analysis of evidence research database.

Six out of sixteen papers are dedicated to aspects of large joints arthroplasty which demonstrates importance of this speciality in present-day traumatology and orthopedics.

In particular, the efficiency of tourniquet application and time of its release in knee joint replacement is actively discussed in the literature for rather a long time, however without achieving a consensus. The opening paper by D.V. Chugaev et al continues this debate. Currently in primary hip replacement the majority of surgeons no longer use wound drainage given guided hypotension and administration of tranexamic acid. The similar matter in knee replacement does not have a unified definite approach and requires a further detailed discussion. The authors of this paper take a stand in favor of late tourniquet release without draining and hemostasis prior to wound closure.

Hip replacement in patients with high hip dislocation is no less actual and disputed issue. A fair number of publications report outcomes of various shortening femur osteotomies along with use of special femoral stems as well as Wagner stems. B.V. Kamshilov et al in the paper "Features of THA in patients with high congenital dislocation of the hip" share a positive experience of arthroplasty by means of shortening subtrochanteric femur osteotomy and use of standard stems.

Many authors consider optimal positioning of prosthesis components the key factor for successful outcome of hip arthroplasty and an essential condition for postoperative joint stability. Prof. S.V. Dianov et al suggest a simple and accessible method of calculating the anteversion angle for acetabular cup using postoperative x-rays of hip joint and pelvis in AP view.

Arthroplasty topic is continued by literature review by A.A. Ageenko et al with analysis of publications dedicated to fast track rehabilitation after hip joint replacement. This technique is quite new for Russia and the "Interscience Research Surgical Society Fast Track" was established in 2015 with a purpose of introducing a concept of accelerated recovery in Russia.

Rate of revision surgeries increases proportionally with a number of primary joint replacements. Some patients undergo several revisions which inevitably results in bone tissue deficit in periprosthetic area. The issue of bone defects replacement in revision surgery is one of the most acute and broadly discussed in literature.

This journal issue presents two papers on above topic. A.A. Korytkin et al report the experience in application of custom triflange acetabular components produced with computer simulation and 3D-printing. Such technology has only recently been introduced into the clinical practice in Russia and every new paper arouses interest among the specialists.

Own solution is presented by authors from Novosibirsk Research Institute of Traumatology and Orthopaedics, V.V. Pavlov et al, who describe two stage hip revision method. First surgery deals with replacement of defect by allograft with platelet-rich-fibrin (PRF-technology), in a second stage following allograft remodeling the authors make revision arthroplasty with standard prosthesis components.

Topic of preparing and application of bone grafts correlates to a certain extent with joint replacement field. The paper presented by a known Austrian specialist Reinhard Schnettler together with colleagues from Russia and Kazakhstan provides further insight into the current possibilities in application of allogenic bone material.

In contrast to insufficiency of bone grafting material for trauma and orthopaedic surgery, the bone ossification after severe injuries often poses a serious problem. Group of authors from European Clinic of Sports Traumatology and Orthopaedics share a case of massive ossification in knee joint developed after comparatively small injury in a 44 year old female patient.

Two articles are dedicated to issues of spine surgery. I.V. Volkov et al discuss the possibilities of ultrasound navigation in radiofrequency denervation of zygapophysial joints in lumbar spine which is the effective method of treatment for facet pain syndrome. S.V. Vissarionov et al present the results of comparative study for efficiency of two surgical correction procedures for congenital lumbar deformities in children.

S.Y. Berezhnoy, a known russian orthopedic surgeon specializing in treatment of forefoot deformities, presents a paper dedicated to a relatively rare type of

deformity – *hallux varus*. This deformity as a rule is the complication after surgical treatment of *hallux valgus*. The author clarifies the causes and formation time of iatrogenic *hallux varus* including comparison of treatment outcomes on both feet of the same patient; evaluates a possibility and efficiency of percutaneous technique in his surgical method.

One of the main causes of pain syndrome in patients with consequences of calcaneal fractures is the lateral impingement syndrome which results in chronic lesions of ligaments, tendinitis and tenosynovitis. Today there are no papers in the literature covering morphological changes in the structure of peroneus brevis tendon. For this reasons the study of N.S. Konovalchuk et al will undoubtedly contribute to understanding the dynamics of pathology process and selection of a proper approach to treatment of patients.

Despite large number of publications dedicated to surgical treatment of patients with anterior crucial ligament ruptures, the debate is further continued on advantages of various arthroscopy reconstruction methods. Until recently only two-bundle ACL reconstruction technique was named anatomical while corresponding to classical understanding of topographic anatomy of native ligament. Currently a biomechanically justified single bundle anatomical ACL reconstruction started to be used in clinical practice with application of isometrically positioned autograft which is a radically new development in this field. O.V. Rikun et al conducted an analysis of foreign and national publications in the last few years on above

topic and present results in their review “Modern trends in surgical treatment of patients with ACL ruptures”.

Another work based on studying the efficiency of arthroscopic techniques is the experience generalization by M.R. Salikhov et al on treatment of lateral humeral epicondylitis in the elbow joint.

One of the complications during limb lengthening by Ilizarov technique is the dysfunction of adjacent joints. We present the outcomes of experimental study by T.A. Stupina et al who followed the dynamics of changes in articular cartilage and synovial membrane of the knee joint during distraction fixation of tibia in combination with a plate. The authors observed that histological changes in articular cartilage correspond to initial osteoarthritis stage and accompanied by hypovascularization and denervation of synovial membrane.

Authors from Donetsk State Medical University dedicated their paper to study of enzymatic activity of platelet-derived growth factor in delayed fracture consolidation.

In general, a substantial prevalence of orthopedic papers over papers on emergency traumatology is noted in the present issue, which probably will need some adjustment. Thus, we welcome our colleagues dealing with treatment of emergency trauma to be more active in next journal issues.

I would like to congratulate all readers of our journal with New Year 2018 and wish you all success in your clinical and scientific work!

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