

## Comment

Over the recent years, we have witnessed major advancements in the surgery of the musculoskeletal system both as regards the treatment of deformities (orthopaedic surgery) and trauma surgery, especially fracture management and various minimally-invasive techniques. This has been brought about by the technological progress, the rise in the field of biomaterials and their widespread availability these days, but also the increasing professional excellence of our orthopaedic surgeons. Polish specialists now perform a growing number of exceptionally complex procedures and have acquired skills and expertise that are in no way inferior to those in command of best specialists in countries that used to be traditionally perceived as more advanced in this area. It should be noted here also that no expense is spared in this respect by the National Health Fund, with even the most costly procedures fully reimbursed.

The Otwock Department of Orthopaedics and Paediatric Orthopaedics and Traumatology of the Centre of Postgraduate Medical Education is one of the few medical facilities in Poland that treats in equal proportions children and adults with orthopaedic problems requiring surgery. The current edition of the "Progress in Medicine" journal attempts to reflect the scope of our interests and medical care we provide.

We would like to present you with two papers in paediatric traumatology. The first of them deals with one of the most commonly encountered fractures in children, i.e. supracondylar humerus fracture which, despite its popularity, invariably poses a challenge for the treating surgeon. The other one elaborates on Tillaux fracture, an injury that is much less common and more difficult to diagnose. Our Department has come to be especially well known for treating upper limb deficiencies (upper limb reduction defects) with the use of latest surgical techniques supplemented by computer-aided Taylor Special Frame multiplanar fixator (TSF). Due to our expertise we are one of the two centres in Poland where patients with upper limb reduction defects are referred. The study discussing the results of treating defects in patients with Ollier disease is a good example of utilizing Taylor frame in the management of various lower limb deformities. Anatomical studies of the vascular network of the proximal end of the femoral bone that we have conducted for over 12 years in the context of the risk for post-traumatic or post-surgical necrosis are another area we are highly committed to. The subject of our research have been both bony aspects of the hip joint, the femur and the hip. A study addressing the blood vessels of the head of the femoral bone is an example of our work. Treatment of deformations of the hip joint occurring as sequelae to hip joint dysplasia have always been one of our specialties. The outlook for patients with hip joint dysplasia is especially grave once they have reached mature age. We are presenting you with articles outlining our experience with surgical treatment utilizing cone stems and in the cases where major dislocation (luxation) is present. Among our staff we have also eminent specialists in the treatment of spine deformities, including scoliosis, developmental defects, post-inflammatory complications and injuries, with great emphasis on neuromuscular diseases. These patients have an increased risk for localized infection at the operated site. Hence, the paper discussing at length this complicated topic, with a review of the available literature of the subject. Another challenge the present-day orthopaedics has to face is facilitating optimal progressive improvement of the patients' condition after total hip arthroplasty (THA) and total knee arthroplasty (TKA) to enable their prompt return to normal daily functioning. Limiting blood loss both during and after surgery and ensuring late postsurgical period uncomplicated by anaemia is a major concern. This issue is addressed by the study on tranexamic acid therapy supplemented with iron, developed in collaboration with a hospital in Ireland. Such management of patients after THA and TKA has reduced the number of necessary transfusions at our facility.

We hope that the papers we are pleased to include in this edition will give you an overview of the scope of activity and the opportunities for advanced treatment at the Otwock Department of Orthopaedics and Paediatric Orthopaedics and Traumatology, whilst also rendering a fair picture of the advancements in the field in general.

*Associate Professor Jarosław Czubak, MD, PhD*