Editorial

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Open fractures represent a combination of problems: damage to the bone, damage to the soft tissues and contamination. Each of these can lead to specific complications such as nonunion, wound breakdown or infection. Not only these injuries demand complex and multiple interventions but also frequently lead to long time disability and a high financial investment for the patient and the society. Unfortunately, the risk of primary and secondary amputation still remains high.

Successful management of these challenging injuries begins with a comprehensive and thorough evaluation of the severity of the damage to the injured limb. Gustilo Anderson's classification is widely used and is based on the extent of the open wound. In Type III open injuries, there is a need for more detailed evaluation of the extent of injury to the skin, soft tissues and bone and also the co-morbidities which affect management and outcome. The Ganga Hospital open injury score presented by Rajasekaran et al. [1] is based on the huge experience of analysis and treatment of high-energy trauma of the lower extremity in a highly populated and newly industrializing nation. The score provides guidelines, not only on the question of salvage and amputation, but also on the timing of reconstruction and the choice of reconstructive pathways.

Large bone defects of the distal part of the femur represent a rare, but extremely challenging problem for the

reconstructive team. Whereas soft tissue coverage is more easily reached as in lower leg defects, the reconstruction of a sustainable and full load-bearing bone is more difficult to obtain. Distraction osteogenesis and the Masquelet technique are widely used, but linked with specific complications and morbidity. Venkatramani et al. [2] present the modified Capanna's technique, which they applied successfully in six patients. The technique combines the implantation of a customized allograft together with a free vascularized fibula graft. The allograft realizes an immediate stable environment; the autograft brings vitality.

Pairon et al. [3] focus on the "reconstructive ladder" for the damaged bone. External fixation is a universally accepted method of primary stabilization of long bone fractures in polytraumatized patients and in open injuries. It is rarely used as a definitive method of fixation. The manuscript collects evidence on when and how to change from external to internal fixation. Differences between the treatment of femur and tibia fractures become evident.

Hofmann et al. [4] focus on the value of intramedullary nailing as a primary method of stabilization in open fractures. It becomes evident that a careful, yet extensive debridement of skin, soft tissues and bone together with immediate soft tissue coverage of the bone fragments are the prerequisites for an immediate internal fixation. When a non-contaminated, completely vital soft tissue envelope is not guaranteed, external fixation with revisions should be the treatment of choice. Intramedullary nails offer mechanical and biological advantages because they are enclosed within the long bones, are located in or very near to the weight-bearing axis and support secondary bone healing by limited reaming and callus formation.

Conflict of interest S. Rajasekaran and P.M. Rommens declare that they have no conflict of interest.

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