## 126. CONTEMPORARY PRINCIPLES OF DIAGNOSIS AND TREATMENT OF TIBIAL PLATEAU FRACTURES

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**Introduction.** Fractures of the tibial plateau are articular fractures that can severely affect the function of the knee if a not treated or treated incorrect. Often the definitive diagnosis is made postoperatively or remains without details due to the wide association of lesions of soft structures, invisible on radiological lines.

**Aim of the study.** Analyzing of contemporary methods of treatment and diagnosis of tibial plateau fractures

**Materials and methods.** This information is based on a review of different articles from the open access databases: PubMed, PMC and GoogleScholar, using the

Results. Tibial plateau fractures are complex injuries that most often affect young adults or the 'third age' population. These fractures usually have associated soft-tissue lesions that will affect their treatment. Associated soft tissue injuries in tibial plateau fractures can be divided as soft tissue envelope lesions, neurovascular injuries and intra-articular lesions. Lesions of the ligaments and/or the menisci has been reported in several studies and may contribute, if not properly treated, to the substandard outcomes associated with this type of fractures. Traditionally, meniscal tears are reported in 20-50% cases of all the tibial plateau fractures, while ligaments lesions are reported in 10-30%. Typically the Schatzker or AO/OTA classification is used, but the concept of the proximal tibia as a three-column structure and the detailed study of the posteromedial and posterolateral fragment morphology has changed its treatment strategy. Partially articular factures can be treated by minimally-invasive methods and arthroscopy is useful to assist and control the fracture reduction and to treat intra-articular soft-tissue injuries. The imaging studies routinely performed for tibial plateau fractures are plain anteroposterior and lateral radiographs and threedimensional CT, while MRI has not yet become a standard tool. The final outcome of surgical treatment may be influenced by associated lesions of the menisci or of the knee ligaments.

**Conclusions.** Tibial plateau fractures are severe injuries, usually associated with soft-tissue lessions and complications. Minimally-invasive osteosynthesis, when possible, is recommended in partial articular fractures. The indications of the surgical treatment appear from: the state of the soft tissues, the quality of the bone, the type fractures and conditions for early rehabilitation of the patient. Patients suffering a tibial plateau fracture should be aware of the residual pain and functional limitations that can appear in the mid- and long-term.

**Key words:** tibial plateau, fracture, diagnosis, operative approach

## 127. THE SURGICAL TREATMENT IN KIENBOCK DISEASE

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