

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 fractures 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 lesions 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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Introduction. Kienbock disease is a disorder of lunate bone vascularity that can lead to marked degeneration of the wrist, reduce grip strength and causes pain, getting to joint disability. The etiology of the avascular necrosis of the lunate is uncertain, but theories relate to ulnar variance, the variability of the bone vascularity and intraosseous pressures. Clinical symptoms are very variable, requiring a high index of suspicion for the diagnosis. Dr. Robert Kienbock an remarkable radiologist from Vienna (Austria), first described lunato-malacia in 1910 in his clinical series and initially felt that the cause of the collapse of the lunate was repetitive trauma to the lunate from work activities. This opinion was supported by Muller in 1920 who proposed the term occupational lunato-malacia. Stahl's classification, modified by Lichtmann in 1977, has historically been used to guide management. Despite this disease being described more than a century ago, the treatment for Kienbock disease still remains controversial.

Aim of the study. We present a review of Kienbock disease and the main objective is to report our personal experience of surgical treatment of this condition at The Clinical Hospital of Orthopedics and Traumatology from Chisinau.

Materials and methods. Our experience is based on the surgical treatment of 45 patients with Kienbock disease, aged between 19 and 59 years, who underwent various surgical treatment. At 19 patients was performed Graner procedure, scaphoid-trapezium-trapezoid arthrodesis in 10 cases, scapho-capitate arthrodesis in 8 cases, radio-lunate arthrodesis in 4 cases, removing the first row of carpal bones in 2 cases, by 1 cases with radio-scaphoid and capitato-lunate arthrodesis.

Results. Arthrodesis directed to obtain ankylosis of the carpal bones by losing the amplitude of movements but allows to achieve a stable joint, without pain and to restore gripping power. The advantage of the Graner procedure is restoring the carpal height and maintaining the load transmitted by the articular surface of the radius in the articular facets of the scaphoid and semilunar. Long-term results were followed up in 23 patients: good - 12, satisfactory - 9. Unsatisfactory outcomes were in 2 cases because of the absence of the ankylosis and presence of the pain.

Conclusions. While the exact cause of Kienbock disease is still poorly understood, several treatment options are available: revascularization, denervation, intraosseous decompression, osteotomy in ulnar variants, selective arthrodesis with or without excision of the lunate. From our experience, the most of patients have good long-term results.

Key words: Lunate, Kienbock disease, Graner procedure, arthrodesis.

128. THE MANAGEMENT OF THE POLYTRAUMA PATIENTS

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Background. Polytrauma meets the classification criteria for a global pandemic and it is a significant cause of mortality and morbidity despite global efforts to control its effects. Around 16000 people in the world die every day as a result of trauma (5,8 million people per year) and the forecast for 2020 is no better, the surveys show that this year there are expected around 8,4 million deaths. Management in polytrauma patients has been considerably changed in recent years, due to the rapid development of multi-fracturing techniques. Despite the implementation of good methods of diagnosis and treatment, there is no reduction in complications and invalidations from trauma, which is explained by the severity of this injuries. Without measures