

## **Arthroscopy Assisted Fixation Of Proximal Tibia Injuries**

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Arthroscopic joint surgery is an evolving area and become an integral part of orthopedics during the past few decades. The use of arthroscopy for fixation of intraarticular fractures provides the potential for accurate and early recognition of the fracture type and the associated soft tissue pathologies such as osteochondral and ligamentous injuries. In addition, arthroscopy enables direct visualization of the joint surface with easier and safer access to delicate areas of the joint through a stab incision and offers reducing the invasiveness compared with open surgery. These techniques can be used successfully for the treatment of tibial plateau and tibial eminence fractures.

Tibia plateau fractures, if not treated effectively and properly, may result in permanent deformities and disability. Technically, arthroscope can be used in tibial plateau fractures to visualize the articular surface while the reduction is performed by elevating the subchondral bone from a cortical window opened through the metaphysis without the need for arthrotomy. After the bone defects are filled with bone graft and the reduction is confirmed arthroscopically, the fractures are fixed with a buttress plate or cannulated screws. Arthroscopically fixed unicondylar tibial plateau fractures showed no significant difference in duration of operation, post-operative flexion of the knee, and clinical outcome scores with less severe peri-operative complications compared to the traditional open methods. It should be noted that, the presence of proximal fibular fracture in tibia plateau fractures is an important detail.

Arthroscopic fixation of displaced tibial eminence avulsion fractures “following failed closed reduction” is a well accepted treatment modality, which has already replaced open reduction and internal fixation. Using transquadriceps tendon portal, guidewires which are easily manipulated can be directed perpendicular to the fracture planes in order to achieve interfragmental compression. Perpendicularly oriented guidewires, which is the main advantage of our technique, also avoid possible neurovascular injury and eliminate the need for fluoroscopy while performing surgical steps.