

SURGERY OF TIBIAL PILLAR FRACTURES

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Lately there are more and more papers reporting on 1/3 lower leg trauma, the so-called tibial pillar fractures. During many years, it is considered that the most optimal method of treating fractures is conservative surgical treatment now becoming indispensable. However, the surgical treatment of talo-crural joint fractures is so far limited, the complexity of fracture and soft tissue vascularization being especially compromised. That is why, the surgical treatment is done in two steps.

Material and methods: We proposed conducting a retrospective study to assess 37 cases of fractures of the tibial pillar between 2011-2015. The patients were treated by surgical method. Of the total number of patients investigated, 27 (73%) were men and 10 (27%) women aged of 21-72 years. All patients were clinically examined (which included local tissue condition) and radiographically in both incidences. In 14 (37.8%) cases were performed CT. We used AO and Tscherne classification. Preoperative preparation consisted of skeletal traction to decrease edema and training local posttraumatic soft tissue in 25 (67.6%) cases. For most patients the surgical intervention was on the 9-12th day after the occurrence of the trauma. Pillar tibial fixation was performed with fixing following: medial locked plate - in 5 (13.5%) cases, blocked anterolateral plate - in 10 (27%) cases, locked plate fixation anterolateral and fibula - 10 (27%) cases, screws and pins - in 9 (24.4%) cases, Ilizarov external fixator - in 2 (5.4%) cases and primary arthrodesis - in one case (2.7%).

Results: Infection and postoperative wound dehiscence occurred in 2 (5.4%) cases. Vicious consolidation was installed in four (10.8%) cases and strengthening late or nonunion - in 3 (8.1%) cases. Fracture evolved into pseudoarthrosis in 2 (5.4%) cases, derivations were installed in four (10.8%) cases, and arthritis - in 16 (43.2%) cases in the first 2 years after surgery.

Conclusions: Tibial plafond fractures, in most cases, are treated in two-steps, on condition of choosing appropriate surgical time for the treatment, depending on the condition of the local soft tissues. Maximum possible restoration of articular surface, in the absence of bone mass, is carried out by using the bone transplantation (primary graftin). Failure of restoring the articular surface requires reliance on primary tibio-talar arthrodesis.