

The use of bone allografts in the surgical treatment of tibial plateau fractures

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Background. Tibial plateau fractures represent according to literature data approximately 1% of the total fractures in the general population and 8% among the senile age population which are mainly treated surgically. The aim of our study was to analyze the results of using bone allografts in surgical treatment of patients with tibial plateau fractures treated in Orthopedics and Traumatology Clinic *Vitalie Betisor* during period 2017-2021.

Materials and methods. We analyzed 10 clinical cases: 2 men and 8 women, mean age 59,4 years. By Schatzker classification of fractures type II was met in 3 cases, III – 3, V – 3, VI – 1, all the fractures were close. Surgical management consisted of open reduction, internal fixation with angular stability plates. Freshly frozen structural cancellous bone allografts were used to perform bone grafting of the bone defect formed after the reduction of fragments, which consisted at least 8 cm³.

Results. Postoperative follow-up was performed at 6, 12, 16, 24 weeks. Patients were evaluated clinically and radiographically, according to the Lysholm Knee Scoring Scale it was obtained an average score of 90 points. Bone healing was achieved to all patients in a period of between 12 to 16 weeks. No postoperative complications were noted. Results were depending on the the quality of reduction, stability of osteosynthesis, rightness of functional recovery and patient compliance.

Conclusion. Freshly frozen structural cancellous bone allografts are a good and safe option for grafting of large bone defects that may occur after the reduction during the surgical treatment of tibial plateau fractures.

Keywords. bone allografts, tibial plateau fractures