

## TREATMENT OF FRACTURES OF THE DISTAL FEMUR. (LITERATURE REVIEW)

*c.m.s., Associate Professor*

**Tukhtaev J. T**

*Master of the 3rd course*

**Nematjonov B.T**

*Andijan State Medical Institute*

Fractures of long tubular bones are among the most frequent injuries of the musculoskeletal system, and femoral fractures are among the severe types of injuries, which occupy the second place in frequency among fractures of tubular bones (10.4% - 23.9%).

It is customary to divide femoral fractures into three groups: the proximal part (neck, trochanteric and subtrochanteric regions), the diaphysis and the distal part. The frequency of the latter is quite high and, according to various authors, amounts to 12-25% for all femoral fractures (6-8% for skeletal fractures).

The complexity of the treatment of distal femoral fractures, according to B.D. Abduev, is due to the anatomical features of this area, and some authors distinguish three different forms of the distal femur. The expanded bone marrow canal, the thin cortical layer, extensive damage to soft tissues, including para- and periarticular, further aggravate the severity of the injury. In addition, the need for prolonged immobilization of the knee joint during treatment fractures of the lower third of the femur contribute to the development of persistent extensor contracture. Moreover, the more distal the fracture of the femur, the more severe the contracture of the knee joint.

In classical Russian traumatology of the sixties-seventies of the last century, conservative methods were recommended for the treatment of intra-articular fractures of the knee joint using various surgical methods of fixation after unsuccessful application of skeletal traction or plaster dressing.

The analysis of the foreign literature of the 70s of the last century devoted to this problem testified to two trends:

-returning to conservative methods;

-improvement of tools and structures for osteosynthesis based on the use of new constructive principles.

At the same time, in the RSC "WTO" for the treatment of intra-articular fractures of the distal end of the femur, knee joint, methods using the Ilizarov apparatus began to be developed.

Later, in 1976-1981, the works of Russian scientists justified the active surgical tactics of treatment of knee fractures.

For elderly patients, A.V. Kaplan recommended mainly conservative treatment, however, with large displacements, with supracondylar fractures, he offered surgical

treatment (nail Bogdanova, Volkovoganesyan). The author recommended avoiding prolonged immobilization of the knee joint in order to avoid limiting the volume of movement.

A relatively small number of works It is devoted to the treatment of patients with fractures of the distal end of the femur in the late eighties, when surgical treatment with various bone fixators was used.

O.S. Buachidze et al. the results of treatment of 28 patients with fractures, pseudoarthrosis and non-accreted fractures of the distal femur were analyzed. The patients underwent osteosynthesis with massive angular and T-shaped plates. Fusion of the femur and restoration of limb supportability were noted in all patients.

In the work of I.G. Belenky, the idea was expressed that "... in traumatology there was no single concept for the treatment of fractures of the distal end of the femur. She's not here today either." It is necessary to agree with this opinion, since the analysis of domestic and foreign literature of the last 15 years speaks of the most contradictory recommendations regarding the treatment of fractures of the distal end of the femur. This is partly due to the lack of a generally accepted classification of these fractures, and the results of treatment are studied on small by the number of groups, sometimes mixed and heterogeneous both in localization and severity of damage.

This assumption is still valid today, as evidenced, for example, by the work of U. Gunel, where the authors analyze supracondylar femoral fractures, noting that comminuted intercondylar intraarticular fractures were especially difficult. It seems that the authors do not find a difference between the listed damage localizations. The paper states that in all cases an attempt was previously made closed treatment (skeletal traction). As fixators, the authors used supracondylar screws AO, plastic UIA, bone grafts. Fusion was achieved in all patients, but in two the results of treatment were assessed as unsatisfactory (deformation, pain, restriction of movements in the knee joint).

The expediency of using the AO plate of angular shape or with an expanding end for the treatment of supracondylar fractures of the femur is described in the work of S.K. Antipin and V.V. Mikhailenko. The recommendations are based on the experience of treating 111 patients.

V.Y. Chernysh was used for reposition and fixation of the distal fragment of the femur using the "Osteomechanic" spoke-rod system combined with the apparatus Ilizarova, where a through rod with a support thread in the middle part and a metric thread in the annular parts is used as a distal retainer. The authors describe in detail the stages of surgical intervention, in particular, the introduction of a rod into the distal epimetaphysis of the femur in the frontal plane.

According to D.I. Faddeev, who used transosseous osteosynthesis with Ilizarov apparatus and other methods of fixation in 60 patients with intra-articular fractures of long tubular bones, including the distal end of the femur, the advantage of transosseous

osteosynthesis is the possibility of accurate reposition and stable fixation, early limb loading, early motor function in the joint due to articulated devices.

V.V. Klyuchevsky's monograph describes in detail the methods of treatment of fractures of the distal femur with rods.

In the manual of traumatology and orthopedics edited by Yu.G. Shaposhnikov, a classification of fractures of the distal end of the femur is given, however, any concept the treatment of these fractures has not been expressed. The point of view of some foreign authors on the treatment of various fractures of this localization and some constructions for fixing fractures (plate Moe, construction Elista). Surgical intervention in the knee joint area with supracondylar and T-shaped fractures is described. It is indicated that the fixation of the fracture can be carried out with plates of CITO or AO, devices of Volkov-Oganesyan, Ilizarov, Kalnberz. Intra-articular fractures the author recommends fixing Gears with collet screws, and also refers to foreign and domestic authors who have used various methods of fixing and obtained different results.

From case studies concerning the treatment of fractures of the distal end of the femur, several works can be cited.

Thus, M.V. Polulyakh proposed a classification of femoral fractures, dividing them into extra-articular and intra-articular. In turn, each group is divided into three groups and three subgroups. The treatment of patients (115 patients in total) in 42 cases was conservative, in 19 – fixators that do not provide stable fixation, surgical treatment with stable functional methods – in 54 cases. Bogdanov rods, Kirshner spokes, screws, Bakicharov corner plates were used as "unstable" fixators. The analysis of the treatment results showed that the most rational method is stable functional osteosynthesis according to the method improved by the author, which allows to achieve excellent and good results in 87.0% of patients.

In the work of Z.A. Ruzibaev, indications for surgical treatment of complex injuries to the distal end of the femur, depending on the period, type and localization of the fracture, the age of the victim; devices for stable functional osteosynthesis are proposed; methods of surgical treatment, a rehabilitation system are developed. The author believes that the indications for stable functional osteosynthesis are:

- fractures with displacement;
- multi-comminuted fractures;
- fractures that are not amenable to conservative treatment;
- T- and V-shaped fractures;
- incorrectly fused fractures.

The conclusions of the work indicate that with low fractures of the femur with a narrow medullary canal, osteosynthesis with diaphyseal plates is shown; with a wide funnel-shaped bone marrow cavity, osteosynthesis with special plates developed by the author is shown, as well as with T- and V-shaped fractures, where it is recommended to

use angular plates at an angle of 95 °. The designs and methods of treatment proposed by the author allow 93.7 % get positive results.

#### LITERATURE:

1. Abduev, B.D. Theoretical substantiation of stable intramedullary osteosynthesis in femoral fracture / B.D. Abduev // Orthopedics, traumatol. and prosthetics. - 1984. - No.6. – pp. 14-18.

2. Antipin, S.K. Supracondylar fractures of the femur / S.K. Antipin, V.V. Mikhaylenko // Specialized orthopedic and traumatological care in pathology of limb joints: Materials of the III Plenum of the Board. Associate. orthopedist. and traumatol. Of Russia. – St. Petersburg; Ufa, 1998. – pp. 30-30.

3. Balakina, V.S. Intra-articular fractures of the knee joint bones / V.S. Balakina // Intra-articular fractures / Ed. Vanstein. – L.: Medgiz, 1959. – pp. 138-179.

4. Baskevich, M.Ya. Questions of regeneration, osteoreparation and treatment of fractures (theoretical aspects of fracturology) / M.Ya. Baskevich. -Tyumen: Publishing house "Vector-book", 1999. – 175 p.

5. Beidik, O.V. Osteosynthesis with rod and spoke-rod external fixation devices / O.V. Beidik, G.P. Kotelnikov, N.V. Ostrovsky. – Samara: GP "Perspektiva", 2002. – 208 p.

6. Buachidze, O.S. Stable osteosynthesis with plates in the treatment of the consequences of damage to the distal femur / O.S. Buachidze, G.A. Onoprienko, V.S. Zubikov // Orthopedist., traumatol. – 1986. - No. 1. – pp. 40-43.

7. Intraosseous fixator for the treatment of low femoral fractures / D.A. Orazliev, N.I. Voronin, A.V. Bushmanov, N.V. Nazarenko // Diagnostics and treatment of polytrauma: Materials of the IV Plenum of the Russian Association. orthopedist.-traumatol. – Leninsk-Kuznetsky, 1999. – pp. 143-144.

8. Golikov, V.D. Transosseous osteosynthesis by Ilizarov apparatus in the treatment of diaphyseal hip fractures / V.D. Golikov // Theoretical and practical aspects of transosseous compression and distraction osteosynthesis. - Kurgan, 1976. – pp. 193-194.

9. Gryaznukhin, E.G. Treatment and rehabilitation of victims with fractures of the hip and lower leg bones of one limb / E.G. Gryaznukhin // Combined limb injury. - L., 1981. – pp. 90-92.

10. Gulnazarova, S.V. Transosseous osteosynthesis in reconstructive and reconstructive surgery for knee joint contractures / S.V. Gulnazarova, L.A. Kazak // The genius of orthopedics. - 1996. - No. 2-3. – p. 36

#### TACTICS OF TREATMENT OF VICTIMS WITH POLYTRAUMA IN THE ACUTE PERIOD OF TRAUMATIC ILLNESS

Mamajonov K.H  
Exsonov Sh.Z