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The Use of the Ilizarov Apparatus in Case of Fracture of Both Femurs

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Abstract: The article shows the relevance of treatment of patients with multiple fractures of the lower extremities. The analysis of treatment of 31 patients with fractures of both thighs by simultaneous transosseous osteosyn thesis was performed.To Ilizarov. Osteosynthesis by Ilizarov for fractures of both thighs is the method of choice in the treatment of this difficult pathology.

Keywords: fractures, hip, transosseous osteosynthesis.

Multiple fractures of the lower extremities are one of the most frequent and severe types of polytrauma. According to some authors, the frequency of these injuries increases every year, currently ranging from 6.6% to 49.8% of the total number of fractures [2, 15, 18,29]. Fractures of both thighs in relation to all fractures of the lower extremities range from 10.3% to 37.1% [1, 13]. The severity of these injuries increases, as evidenced by the frequency of traumatic shock in multiple fractures (34,4% -72,3%) [10, 11, 17, 27] and fat embolism - up to 10% [12, 18, 30]. Difficulties in treating patients with multiple fractures of the lower extremities are caused by the severity of damage not only to the bone, but also to the surrounding soft tissues. It is no coincidence that the duration of treatment of patients after conservative and operative methods of treatment ranges from 4 months to one year or more, and unsatisfactory treatment results range from 16.8% to 75% of cases [11, 7]. According to a number of authors, access to disability in multiple fractures of the lower extremities is as follows: 34-64% [5, 9, 14]. The method of fixing bone fragments in multiple fractures is given an important significance, since patients with these injuries require urgent life-support measures. Despite the active management tactics of these patients – early stable osteosyn thesis, carrying out therapeutic and preventive measures aimed at improving the rheological properties of blood, preventing fat and thromboembolism – the mortality rate remains high and ranges from 1.3% to 16% [16, 3, 4]. We analyzed the results of treatment of 21 patients with fractures of both thighs. The age of patients ranged from 8 to 65 years, and the main group consisted of people of working age (16-60 years) - 19 patients with a predominance of males – 17 people, women – 4 . Closed fractures of both thighs were present in 12 patients, open fractures of one hip and closed fractures of the other-in 6 patients, open fractures of both thighs – in 3 patients. Seven patients with fractures of both thighs had concomitant fractures: pelvis-2, forearm-1, ankle joint-2, foot bones-2, clavicle-1, patella-2, heel bone-1 victim. In 15 cases, these injuries were received as a result of road accidents, in 3-as a result of a direct blunt object impact; a fall from a height was noted in 3 victims. Every second victim was admitted in a state of traumatic shock of varying severity (shock of I degree – 5, II degree-4, III degree – 1), which required emergency anti-shock measures. As a rule, hip fractures arise from the impact of a large mechanical force, and comminuted fractures are more common along the fracture plane (in 33 cases), located in the diaphyseal parts of the bone. Double fractures occurred in two cases. Oblique fractures were evenly distributed in the femoral diaphysis. There were no helical fractures, and only in 3 cases the fracture plane was transverse. Hip fractures are always

accompanied by displacement of bone fragments. Complete displacement of fragments was observed in 15 patients, by 1/2 of the bone diameter-in 25 patients, and only in two cases the femoral fragments were displaced to the cortical layer. According to Kaplan's classification Out of 11 patients with open hip fractures, 5 patients were with type II B, type II BB-3, and type III B-3. According to the terms of admission, patients were distributed as follows: 6 patients were admitted on the first day, 3 patients were admitted on the first day, 6 patients were admitted on the first day, 6 patients were admitted on the first day, 6 patients were admitted on the second day, one month – 6 victims. Taking into account the nature of the injury and concomitant diseases, general controlled anesthesia was preferred when choosing the method of anesthesia. Our patients underwent it in 13 cases, and in 8 cases-epidural anesthesia. According to the terms of admission, patients were distributed as follows: 6 patients were admitted on the first day, 5 patients were admitted for up to 7 days, 5 patients were admitted for up to two weeks, 4 patients were admitted for up to one month, and one patient was admitted for more than one month. Osteosyn thesis was performed on 12 patients on the day of admission, 7 on the second or third day, and two patients underwent osteosyn thesis at their place of residence. Osteosyn thesis in full with a final, good reposition on the operating table was performed in 10 patients, the rest of the victims were repositioned fragments, due to the severity of the damage and general condition, were performed in the following days. In order to facilitate and shorten the duration of the operation, osteosyn thesis was performed on an orthopedic table with simultaneous skeletal traction for the condyles of both thighs by a team of 4 doctors. Depending on the level of the fracture, various device layouts were used (two arcs + two rings; one arc + three rings; in one case: an arc + a ring). For the convenience of walking, the patient with two apparatuses in the postoperative period, without violating the principles of centering of femoral fragments in the apparatus and stiffness, arcs or rings were applied in the upper third and middle third of the thigh, and ring supports were used only in the lower third of the thigh. In order to increase the rigidity of fixation, mutually crossing spokes were carried out at all levels. When comminuted in fractures, large fragments were always fixed with one or two spokes with a stop pad to one of the main fragments. In the postoperative period, all patients underwent correction of homeostasis parameters under the control of the blood coagulation and anticoagulation systems. From the second day after the operation, patients started developing knee joint movements under the guidance of a physical therapy instructor. Almost all patients used crutches while walking before removing the device, and only three patients could move without additional means of support. The time of fixation in the device in the absence of a bone defect ranged from 30 to 172 days. At the same time, only 2 patients had the devices removed simultaneously from both thighs. In other cases, the device was removed from the second limb during the formation of a full-fledged regenerate within 7 to 45 days from the moment of removal of the first device. After removing the device, the limbs were placed in a mid-physiological position with the help of special styling to facilitate the possibility of early movements in the knee joint. Out of 9 patients with open fractures, in 4 cases the wounds healed by primary tension. Three patients were admitted from other medical institutions with already infected fractures, and in 2-suppuration of the wound occurred after primary surgical treatment. In 2 patients, skin necrosis occurred, and later they underwent skin plastic surgery. Spoke osteomyelitis was noted in one patient, and inflammation of the soft tissues around the spokes in 6 patients. The immediate results of treatment were studied in all patients. Repeated osteosyn thesis was performed in 6 patients. Reasons: 1 fusion (3 cases); 2) suppuration of soft tissues around the spokes (2 cases); 3) false joint (1 case). Depending on the severity of the injury, the duration of disability from the number of employees (10) ranged from 210 to 320 days. Primary disability of group II was determined in 8 patients. When re-examined a year later, it was removed in 6 patients, and two were transferred to group III. Group III-one was 2 years old, the second was left for life due to a shortening of the hip by 5.0 cm.

Long-term results from 1 year to 14 years were studied in 16 patients. Evaluation of treatment results was carried out according to the system Luboshitsamattis. Complete anatomical and functional recovery of the limbs occurred in 10 patients. Shortening of the limb from 2 to 5 cm was noted in 3 patients. Varus deformity, not exceeding 100-in 4 patients. Extensor contracture of the knee joint of varying degrees – in 5 victims. Post-traumatic deformities, knee arthrodesis – in 2 patients, one

patient had deforming hip osteoarthritis. To demonstrate the possibilities of transosseous osteosyn thesis by Ilizarov in the treatment of patients with fractures of both thighs is a clinical observation.. On the day of admission under epidural anesthesia, the patient underwent simultaneous closed osteosyn thesis of the right and left femur with the device Ilizarov and closed osteosyn thesis of the radial bone of the left forearm. The device was removed from the forearm on the 68th day of fixation. The term of fixation of the right hip was 128 days, the left hip-150 days. In the machine and after removing it, all efforts were directed at developing movements in the knee joints. The disability period was 7 months. As a result of treatment, all fractures were fused, the length of the legs is the same, the axis is correct. Examined after 13 years. No complaints, movement in adjacent joints in full. Complete anatomicaland functional recovery of the limbs was noted Thus, osteosynthesis by Ilizarov for fractures of both thighs is the method of choice in the treatment of this difficult pathology.

Literature

1. Gafforov A. U., Asilova S. U., Teshaev A. A. Analysis of reparative after surgical treatment of diaphyseal fractures of the shin bones //Art of Medicine. International Medical Scientific Journal. – 2021. – T. 1. – №. 3.
2. Gafforov A. U., Asilova S. U., Teshaev A. A. Analysis of reparative after surgical treatment of diaphyseal fractures of the shin bones //Art of Medicine. International Medical Scientific Journal. – 2021. – T. 1. – №. 3.
3. Gafforov A. U., Asilova S. U., Teshaev A. A. ANALYSIS OF REPARATIVE AFTER SURGICAL TREATMENT OF DIAPHYSEAL FRACTURES OF THE SHIN BONES //Art of Medicine. International Medical Scientific Journal. – 2021. – T. 1. – №. 3.
4. Gafforov A. U., Asilova S. U., Teshaev A. A. Indicators X-ray Densitometric studies in fractures of long tubular bones with the use of plasma lifting in an experimental study //British Medical Journal. – 2021. – T. 1. – №. 1.2.
5. Gafforov A. U., Asilova S. U., Teshaev A. A. Indicators X-ray Densitometric studies in fractures of long tubular bones with the use of plasma lifting in an experimental study //British Medical Journal. – 2021. – T. 1. – №. 1.2.
6. Halimovich M. H., Ozodovich N. S. Improvement of surgical treatment of patients with combined degenerative-dystrophic pathology of the hip joint and spine with prevalence of manifestations of coxarthrosis //British Medical Journal. – 2021. – T. 1. – №. 1.2.
7. Khamraev B. U., Sh A. S. Our experience of treatment of femor fractures by the method of intramedular locking osteosynthesis //Asian journal of Pharmaceutical and biological research. – 2021. – T. 10. – №. 2.
8. Mirzamurodov H. H. et al. OPTIMIZATION OF TOTAL HIP ARTHROPLASTY FOR DYSPLASTIC COXARTHROSIS //Новый день в медицине. – 2020. – №. 4. – С. 667-672.
9. Mirzamurodov H. H. New approaches to treatment of patients with coxovertebral syndrome //Asian journal of Pharmaceutical and biological research. – 2021. – T. 10. – №. 2. – С. 9-19.
10. Mirzohidovna H. E. Obesity as a risk factor for recurrent polycystic ovary disease //Asian journal of pharmaceutical and biological research. – 2021. – T. 10. – №. 3.
11. Nematov D. et al. Molecular dynamics simulations of the DNA radiation damage and conformation behavior on a zirconium dioxide surface //Egyptian Journal of Chemistry. – 2019. – T. 62. – №. The First International Conference on Molecular Modeling and Spectroscopy 19-22 February, 2019. – С. 149-161.
12. Ozodovich N. S. Analysis of morphological changes in the bones after osteomyelitis and features of treatment methods //Asian journal of Pharmaceutical and biological research. – 2021. – T. 10. – №. 2.

13. Shavkatovich A. S. Prevention of possible complications before and after total end protestation of the combine //European Journal of Business and Social Sciences. – 2019. – Т. 7. – №. 5. – С. 1413-1422.
14. Yunusovich Y. S. Traumatic Significance of Determining the Level of Antibiotic Activity in Fatty Biosynamens //Central Asian Journal of Medical and Natural Science. – 2022. – С. 112-117.
15. Ziyadullaev A., Nurmonov S., Parmonov A. Study of the catalytic reaction of acetylene with cyanuric acid //Journal of science. Lyon. – 2020. – №. 8-1. – С. 11-14.
16. Акрамов В. и др. Эндопротезирование тазобедренного сустава при переломах шейки бедренной кости //Журнал проблемы биологии и медицины. – 2017. – №. 3 (96). – С. 14-16.
17. Акрамов В. и др. Эндопротезирование тазобедренного сустава при переломах шейки бедренной кости //Журнал проблемы биологии и медицины. – 2017. – №. 3 (96). – С. 14-16.
18. Акрамов В. Р. Асептическом Некрозе Головки Бедренной Кости Сравнительный Анализ Отдельных Результатов Эндопротезирования //AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI. – 2022. – Т. 1. – №. 7. – С. 53-57.
19. Ахмедов Ш. Ш. и др. The peculiarities of prophylaxis of pulmonary thromboembolism after total hip endoprosthesis in dysplastic coxarthrosis //Новый день в медицине. – 2020. – №. 2. – С. 53-55.
20. Ахмедова С. М. Возрастные особенности анатомии сердца крысят в раннем постнатальном онтогенезе //International medical scientific journal. – 2015. – С. 40.
21. Ахмедова С. М. Гистотопография стенок сердца крысы в постнатальном онтогенезе //Врач-аспирант. – 2011. – Т. 46. – №. 3.2. – С. 283-288.
22. Ахмедова С. М. Морфологическая характеристика развития стенок сердца крысят //Наука и мир. – 2015. – №. 1-2. – С. 85-87.
23. Ахмедова С. М., Айтжанова А. Е., Сагдуллаева М. К. К МОРФОЛОГИИ ИЗМЕНЕНИЙ ПОЧЕК ПРИ ЭКСПЕРИМЕНТАЛЬНОМ АЛКОГОЛИЗМЕ //Journal of new century innovations. – 2022. – Т. 16. – №. 2. – С. 166-168.
24. Ахмедова С. М., Якубова Ф. ПОКАЗАТЕЛИ ФИЗИЧЕСКОГО РАЗВИТИЯ У СЛЕПЫХ И СЛАБОВИДЯЩИХ ДЕТЕЙ //Conferencea. – 2022. – С. 103-105.
25. Ахмедова С., Нортоева Н., Нортоев А. Morphological changes in the teeth of adolescent children with hypotireosis : дис. – Тошкент тиббиёт академияси, 2022.
26. Каримов Х., Ахмедова С., Тен С. Морфологическая характеристика развития стенок сердца и их изменения при воздействии пестицидов //Журнал вестник врача. – 2011. – Т. 1. – №. 03. – С. 51-54.
27. Рахматов К. Р. Результаты вертебропластики при лечении больных с патологическими переломами и гемангиомами позвонков //Новый день в медицине. – 2020. – №. 1. – С. 345-346.
28. Хакимов Ш. К., Мухамедов Б. С., Мансуров А. Б. РЕЗУЛЬТАТЫ ХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ АПОФИЗЕОЛИЗОВ ВНУТРЕННЕГО НАДМЫЩЕЛКА ПЛЕЧЕВОЙ КОСТИ У ДЕТЕЙ //Вестник экстренной медицины. – 2022. – Т. 15. – №. 1. – С. 38-43.
29. Хакимов Ш. К., Мухамедов Б. С., Мансуров А. Б. Результаты хирургического лечения апофизеолизов внутреннего надмыщелка плечевой кости у детей: 10.54185/TBEM/vol15_iss1/a6 //ВЕСТНИК ЭКСТРЕННОЙ МЕДИЦИНЫ. – 2022. – Т. 15. – №. 1.
30. Халимова Э. М., Нурханова Н. О., Сулейманова Г. С. Соматический статус женщин с мастопатией в период перименопаузы //Молодежь, наука, медицина. – 2015. – С. 359-361.

31. Ходжанов И. Ю., Хакимов Ш. К., Касымов Х. А. Некоторые ортопедо-косметические аспекты лечения воронкообразной деформации грудной клетки у детей и подростков //Врач-аспирант. – 2012. – Т. 52. – №. 3.4. – С. 531-539.
32. Ходжанов И. Ю., Хакимов Ш. К., Касымов Х. А. Оперативное лечение воронкообразной деформации грудной клеткиу детей и подростков с применением модифицированной пластины //Гений ортопедии. – 2013. – №. 1. – С. 108-111.