References:

1. Гафуров Б.Г., Аликулова Н.А. Ранняя нейропротекция снижает риск развития постинсультной деменции: научное издание // Неврология. – Ташкент, 2011. – №4. – С. 85–86.
2. Диагностика и лечение артериальной гипертензии. Российские рекомендации (III пересмотр). М: ВНОК. 2008.
3. Катаева Л.Н., Карзакова Л.М., Саперов В.Н., Орешников Е.В. Изучение цитокинового статуса при церебральном инсульте // Иммунология. – 2005. Т. 26, №3. – С. 161–164.
4. Кувачева Н.В., Салмина А.Б., Комлева Ю.К. и др. Проницаемость гематоэнцефалического барьера в норме, при нарушении развития головного мозга и нейродегенерации // Журнал неврологии и психиатрии. Москва, 2013. – №4. – С. 80–85.
5. Мартынова Г.И. Клинико-иммунологические сопоставления при хронической ишемической болезни мозга атеросклеротического генеза // Журнал неврологии и психиатрии им. С.С. Корсакова: Прил. Инсульт. Москва, 2001. – № 2. – С. 40–44.
6. Нечунаева Е.В. Иммуно–биохимические показатели в ранней диагностике хронической ишемии головного мозга: Автореф. дис. … канд. мед.наук. – Екатеринбург, 2011. – 25 с.
7. Полетаев А.Б., Алферова В.В., Абросимова А.А. и др. Естественные нейротропные аутоантитела и патология нервной системы // Нейроимму–нология. 2003. – Т. 1, № 1. – С. 11–17.
8. Buga A.M., Di Napoli M., Popa–Wagner A. Preclinical models of stroke in aged animals with or without comorbidities: role of neuroinflammation //Biogerontology. – Craiova (Romania), 2013. – Vol. 14, N6. – P. 651–62.
9. Kuriyama N(1), Mizuno T, Kita M, et al. Predictive markers of blood cytokine and chemokine in recurrent brain infarction.// J Interferon Cytokine Res. 2009 Nov;29(11):729–34. doi: 10.1089/jir.2009.0012. Kyoto, Japan.
10. Smith J.A.(1), Das A., Ray S.K., Banik N.L. Brain Res Bull. 2012 Jan 4;87(1):10–20. Role of pro–inflammatory cytokines released from microglia in neurodegenerative Diseases // Brain Res Bull. 2012 Jan 4;87(1): 10–20. Charleston, SC 29425, USA.

Asilova Saodat Ubayevna,
Khaydarov Azizjon Kosimovich,
Tashkent Medical Academy, Uzbekistan.
E-mail: haydarov.azizjon@mail.ru

Surgical treatment by method ligamentotaksisa for fractures of metacarpal bones of the hand

Abstract: Purpose: to improve the results of treatment of fractures of metacarpal bones surgically using the method ligamentotaksisa.

Method: The results of treatment were studied in 36 patients with fractures of the metacarpal bones of the hand between the ages of 18 to 74 years. All patients received surgical treatment method ligamentotaksisa.

Results: The results of treatment were studied in long-term period of 1 year to 4 years. The results of treatment were assessed by an 8-point scale, which takes into account the consolidation of the fracture, the range of motion in the joints, the presence of pain, return to work. Good results are ascertained in 30 (83.3%) patients, satisfactory in 4 (11.1%), poor in 2 (5.6%).The results of treatment is also dependent on the residual displacement of bone fragments. Our results showed that the mixture should not exceed 20°.

Conclusion: Our method of surgical treatment of fractures of the metacarpals with ligamentotaksisa shows for all kinds of intra-articular fractures of the distal end of the metacarpal bones, helps shorten hospital stays and total disability in 2 times.

Keywords: metacarpal bone, the device, surgery, ligamentotaksis.

Introduction: The metacarpal fractures accounts 2.5% of all bone fractures, from them fractures of distal part of metacarpal occurs in 74%. According to different authors, closed fractures of metacarpal I meet from 5 to 40%; Metacarpal II — from 7 to 20%; Metacarpal III — from 5 to 12%; Metacarpal IV — from 8 to 30% and Metacarpal V — from 17 to 56% of all fractures. According fractures localization, closed fractures of metacarpal bones are distributed as follows: in the shaft — in 30–50% of patients, in the base — at 12–20%, in the head — from 4 to 6%. In 36,5–42,0% of patients occurred subcapital fractures of II–V metacarpal bones in the so-called metacarpal neck [1; 2,]. Treatment of brush injuries is a complex and important section of hand surgery. So far, there is no consensus on the choice of treatment for different types of metacarpal fractures. According to many authors [1; 11] it is become to need

of individual approach in treatment of metacarpal fractures, with a glance their specific features.

Although up to present time developed a number of new systems and constructions for the treatment of hand bones injuries, the complications rate remains high and reaches 11,2–31,9% (Tonkikh SL et al., 2002; Obukhov IA, 2002; Fusetti C. et al., 2004). As a result of inadequate treatment there are arise not only pain and deformations at injured side, but also brush function is disrupts, which leads to a decrease in patient disability and even disabling. The using of compression-distraction device (CDD) at metacarpal fractures is finds a wide recognition in hand surgery, and opens a new possibilities for improving the treatment effectiveness of injuries and deformities of this functionally important organ. The experience gained by domestic and foreign authors and based on the development and implementation of their own facilities and devices, contributes to a significant expansion of its application in hand surgery [6; 7; 8; 12; 13].

Mini devices using for metacarpal distal end fractures according to reduction mechanism conventionally divided into 2 groups:

1. Directly reducing devices.
2. Indirectly reducing devices.

Directly reducing devices: we know that at isolated metacarpal fractures, the bone fragments consist of two parts: the distal and proximal. In the application of the first group of devices pins are conducted through the distal and proximal bone fragments. At the same time under the ICT due to the correction of the bone fragments reposition is achieve by conducting pins. The disadvantage of this method is that the plural and comminuted fractures of the distal end the conduction pins through bone fragments causes technical difficulties. In addition, directly reducing devices cannot be used at the distal fractures of the metacarpal's head and neck.

Indirectly reducing devices: and this group of devices the proximal bone fragment fixed by pins, but through the distal end the pin is not carried out. Pin is conducted through the diaphysis proximal phalanx of damaged metacarpal bone, the device is assembled and carried distraction. Here reduction is carried out at the expense of tension of the capsule, ligaments and soft tissues of the joint. In scientific terms, this is called "Ligamentotaxis." The Ligamentotaxis idea in first was proposed in 1977 by Vidal et al. and its essence is the fragments alignment achieves by traction on segment's axis at the expense of intact soft tissue. Unfortunately just a few "ligamentotaxis" methods is developed.

The Purpose of the research: improvement result treatments fracture metacarpal bones by surgical way with using the method "ligamentotaxis".

The Material and methods of the study. Under observation were found 36 patient with fracture metacarpal bones of the brush.

Patients were portioned on categorizations JC (the table 1). Here with we did not take into account the diaphysial fractures (A-1, A-2, A-3), since designed by us device was intended for treatment metaphysial and intraarticular fracture metacarpal bones. Necessary to note that amongst patient prevailed the fractures II and V metacarpal bones of the brush.

Table 1. – Distribution patients with fracture metacarpal bones of the brush on JC

Metacarpal bones of the brush	B-metaphysical fracture:			C- intraarticular fracture:		
	B1 – simple;	B2 – with intermediate fragment;	B3 – multisplintered.	C1 – incomplete;	C2 – complete simple;	C3 – complete multisplintered fracture with pression.
I	–	–	1	–	–	1
II	1	3	2	1	4	3
III	–	1	1	–	–	1
IV	–	1	1	–	–	3
V	1	4	3	1	1	3
Total	2	9	7	2	5	11

We are in the treatment of patients with fractures of the metacarpals enjoyed working complex treatment program, which highlighted six major periods of treatment:

1) preparation — included a general clinical-laboratory and radiological methods of research;

2) surgical intervention; When surgical treatment of us developed an apparatus for osteosynthesis and received a patent for «Apparatus for the development and treatment of injuries knuckles»/№ FAP 00523 24.02.2010.

The surgical procedure: Using an electric drill through the holes in the bracket was held K-wire through the main phalanx. Then, through the holes on both sides of the rods from the brackets had been four intercrossing K-wire. Spokes have been strengthened nuts on both sides of the bracket. For further stabilization of the two arcs through the middle and fastened rod.

After installation of the device the patient can independently develop interphalangeal joints.

After applying apparatus is mild distraction (0.5–1.0 mm distracter turnover every day). The complex of therapeutic measures is important functional treatment after surgery, which requires a gentle load on the damaged organ. From the 2nd day after the surgery the patient is allowed to perform light active-passive movements in the interphalangeal joints of the fingers.

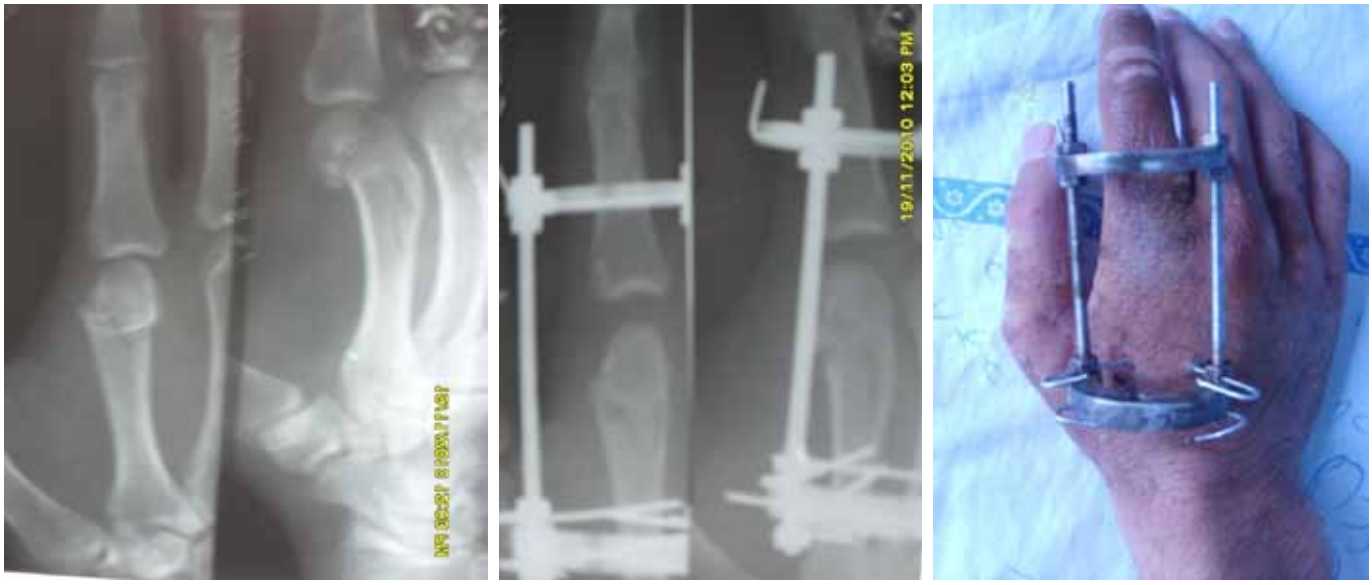

Figure 1. Before and after operation condition

3. Adaptation — patients by indications prescribed painkillers and carried hypothermia. Creating a functional rest in this period is especially necessary when fresh injuries in terms of increasing swelling, pain, lack of adaptation of the patient to the unit.

4. Correction of the position of fragments — were carried out in the first 3–4 days after surgery using the device, which lasted for 5–6 days, followed by an x-ray control;

5. stabilizing the voltage between the fragments — are monitored for fixing the spokes and the strength of the device. For the duration usually corresponds to the period of consolidation. The unit is dismantled in 4–5 weeks.

6. After removing the device begins a period functional treatment and social rehabilitation-seeing in most cases, against the background of a moderate restriction of movement in the joints of the damaged segment and adjacent phalanges. The average length of it is 9,5 ± 1,04 days with fresh fractures and 15,5 ± 1,03 in the chronic injury.

Results and discussion:

Most authors believe that the fractures with an angular displacement IV and V metacarpal bones do not need an accurate repositioning as a normal range of motion is compensated by their high mobility. Fractures angularly offset II and III metacarpal bones need accurate repositioning, because otherwise the angular deformity will interfere with normal hand function. Some authors believe that at the turn of V metacarpal bone, the normal range of motion, which is 15–25°, the permissible angular deformation to 30–40°, not interfering with normal function. At the turn of IV metacarpal bone permissible angular deformation of up to 20° without disrupting normal function. However, the angular distortion is absolutely inadmissible for fractures II and III metacarpal bone to restore the normal function of which require accurate anatomical repositioning.

In the presence of the angular displacement of fragments, many authors offer or do not produce reduction and immobilization [3; 4; 10] or not to eliminate the offset at an angle of 40–70°. It is emphasized that in any case achieved an excellent functional result. We can not fully agree with these statements, because we had to operate on patients (capsulotomy, corrective osteotomy), who had expressed nail-formed strain hyperextension contracture in the metacarpophalangeal joints (PPS), because of what the victims could not squeeze your fingers into a fist and to fully implement the various types of capture. If the axis of the metacarpal bone is restored, then the next trauma patient has a good chance to get re-fracture. All investigators have tried to eliminate all cases the angular offset. If we do not manage it, then like other authors [5; 9] considered acceptable residual offset at an angle of not more than 25–30° for IV and V metacarpal bones. According to our results, the mixing should not exceed 20.

Criteria for assessing the results.

The main goal that we pursued by applying this methodology, is to prevent displacement of bone fragments after closed reduction in patients with a stale fractures metacarpal neck (fresh 24 hours after injury failed fracture reduction). Therefore, when evaluating the results focuses on the ability of the device to securely hold the rod fragments to full fusion.

Before and after the operation determined by the angle of displacement of bone fragments in the oblique radiographs. Pivoting measured between the contours of the dorsal cortical both metacarpal bone fragments. Before surgery, the rate ranged from 50 to 20° (an average of 35°), and before removal of the device from 0 to 20° (average of 5°).

Long-term results of treatment in a period of 1 year to 4 years, were studied in 36 patients. The evaluation was conducted on the 8-point system were taken into account the consolidation of the fracture, the range of motion in the joints, the presence of pain, return to work. Good results are ascertained in 30 (83.3%) patients, satisfactory in 4 (11.1%), poor in 2 (5.6%).

Conclusions.

1. In the transverse and oblique fractures, as well as all types of intraarticular fractures of the distal end of the

metacarpal bone distraction device shown imposition developed clinic.

2. The use of MLC can achieve solid fixation of bone fragments during the treatment period, sufficient for the early development of movement in the adjacent joints and contributes to a significant reduction in terms of hospitalization and total disability. Use of BWW will shorten patient treatment for all kinds of damage in 2 times and total disability period of 4–5 days.

3. Surgical interventions carried out at the turn of the distal end of the metacarpal bones, must be accompanied by a complex post-operative rehabilitation.

4. The application of distraction apparatus for treatment of fractures of the metacarpal bones of the hand, allows you to get excellent and good outcomes in 83.1% of patients, which gives reason to recommend it for widespread use in the practice of medical institutions.

References:

1. Устройство для разработки и лечения при повреждений суставов пальцев/№ FAP 00523 24.02.2010 г.
2. Асилова С. У., Хайдаров А., и сооавт Переломы пястных костей кисти и их лечение Вестник ТМА№ 2/2012 С. 50–52.
3. Асилова С. У., Хайдаров А., и сооавт.//Применение дистракционного аппарата при переломах пястных костей кисти//Гений ортопедии№ 3/2012. С. 15–19.
4. Бейдик О.В, Островский Н.В, Шевченко К.В, Левченко К. К.//Топографо-анатомическое обоснование чрескостного остеосинтеза коротких трубчатых костей кисти. Гений ортопедия 2006 № 2. С. 18–21.
5. Голобородько С. А.//Лечение несвежих переломов шейки пястных костей стержневым аппаратом наружной фиксации. Вестник травматологии и ортопедии им. Н. Н. Приорова 2002. № 1. С. 70–72.
6. Информация.//Современные технологии диагностики, лечения и реабилитации повреждений и заболеваний кисти (международная научно-практическая конференция). Вестник травматологии и ортопедии им. Приорова Н. Н. 2006 № 1 С. 94–95.
7. Клюквин И. Ю., Мигулева И.Ю, Охотский В. П.//Травмы кисти//2009. С 150–186.
8. Козьмина Т.Е, Знаменская М. Г. //Оценка функционального состояния кисти после проведенного лечения методом чрескостного остеосинтеза. Гений ортопедия 2002. № 3. С. 77–79.
9. Коршунов В. Ф., Магдиев Д.А, Барсук В. И.//Стабильный интрамедуллярный остеосинтез при переломах пястных костей и фаланг пальцев кисти. Вестник травматологии и ортопедии им. Приорова Н. Н. 2000 № 2. С. 22–26.
10. Мусалатов Х., Юмашев. Г., Силин Л.//травматология и ортопедия//2007.
11. Rolando S. Clin Orthop Relat Res//Fracture of the base of the first metacarpal and a variation that has not yet been described://1910. (Translated by Roy A. Meals). 2006. Apr. P. 445.
12. Scheker L. R., Ahmed O.//Radical debridement, free flap coverage and immediate reconstruction of the upper extremity//Hand Clin. 2007; 23 P. 23–24.
13. Shihalëva NG, Chirkov IV//Treatment of patients with closed fractures of the distal metacarpals metaepiphysis using transosseous osteosynthesis.//The genius of orthopedics 2009 № 2. P. 40–45.

Khakimov Murod Shavkatovich,
Doctor medical sciences, professor.
Head of the surgery department of Tashkent medical academy
Adilkhodjaev Askar Anvarovich,
Doctor of philosophy
Assistant of the surgery department of Tashkent medical academy
E-mail: askar1981@mail.ru
Yunusov Seydamet Shevketovich,
Subintern of the surgery department of Tashkent medical academy

Epidemiological and etiological aspects of genesis of periampulary tumors

Abstract: Purpose: Statistical data of tumors of a periampullary zone are presented in article. Among tumors of this localization the head of the pancreas (62–69.7%) is surprised most. Among the etiologic factors smoking can be taken for granted the factor twice increasing risk of a disease. The share of hereditary factors and the germinogen of mutations is found in 5–10% of patients. Direct influence of consumption of coffee and alcohol isn't considered