TACTICS OF TREATMENT OF PATIENTS WITH MULTIPLE ONE – SIDED DIAPHYSEAL BONE FRACTURES THIGHS AND SHINS, COMBINED WITH ABDOMINAL AND RETROPERITONEAL INJURY SPACES

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Combined closed injury of the abdomen and various segments of the musculoskeletal system belongs to the category of complex injuries requiring emergency care.

Treatment tactics are even more diverse for combined injuries of the abdominal cavity and retroperitoneal space and unilateral fractures of the lower limb. Some authors prefer conservative treatment, others, if conservative treatment fails, resort to surgery, and others use a combination of surgical methods with conservative ones. However, most authors consider surgical treatment to be the method of choice.

The severity of the patients' condition is caused by a combination of bone injuries of various localization and internal organs, as well as traumatic shock. Symptoms of developing traumatic shock often visualizes the clinical picture of damage to the abdominal organs, which can cause diagnostic errors. Often, the severity of damage to the abdominal organs in combination with damage to the limbs and other organs and tissues is so great that even correct diagnosis and timely surgical treatment, unfortunately, do not give the desired effect.

Diagnosis of damage to internal organs with a closed abdominal injury, combined with damage to the musculoskeletal system, is very difficult. The typical pattern of intra-abdominal bleeding is not easy to differentiate with the manifestations of traumatic or spinal shock. The well-known clinical symptoms of acute abdominal pain in patients with polytrauma are characterized by extreme inconstancy. X-ray examination, due to the particular severity of the victim's condition, is not always feasible and cannot resolve the whole diagnostic problem. Unfortunately, ultrasound examination does not always reveal the pathology of the abdominal organs of a traumatic nature. In such cases, an emergency laparoscopy performed for diagnostic purposes is crucial, which allows the surgeon to sometimes to refuse unnecessary laparotomy.

The purpose of the study. Comparative analysis of the methods of osteosynthesis, the time spent in patients with multiple unilateral diaphyseal fractures of the femur and lower leg bones combined with abdominal and retroperitoneal trauma.

MATERIALS AND METHODS

During the period from 2019 to 2022, we observed 93 patients with multiple unilateral diaphyseal fractures of the hip and lower leg bones, combined with abdominal and retroperitoneal trauma, treated at the Andijan Regional Hospital. Open fractures were

classified by Gustilo R.B., Anderson J.T. (1976). 36 patients were treated with a conservative method, 57 underwent surgical osteosynthesis.

To determine the nature of fractures, we used the AO/ASIF classification. Long-term treatment results were evaluated according to the classification of Jonner R., Wruhs O. (1983). The patients we observed were divided into 2 groups: group A, which was treated with a conservative method of treatment, and group B, which was treated with surgical osteosynthesis. The admitted patients were sent to the intensive care unit, where they were given the necessary examination and appropriate assistance. Doctors of different profiles were involved (surgeons, traumatologists, neurosurgeons, urologists, otolaryngologists, ophthalmologists, etc.).

To perform a comparative analysis of osteosynthesis methods and the time of its implementation Descriptive statistical methods (frequency of occurrence of the studied signs) were used in patients with multiple unilateral diaphyseal fractures of the femur and lower leg bones, combined with abdominal and retroperitoneal trauma.

RESULTS

Out of 93 patients, 79 men (84.9%) and 14 women (15.1%) were under observation. Most of the victims (76.3%) were of working age (21-60 years). The main cause of injury in 88 victims (94.6%) were road accidents.

During the first hour after the injury, 61 victims (65.6%) were hospitalized, up to 12 hours – 16 (17.2%), up to 24 hours – 9 (9.7%). 7 patients (7.5%) were transferred from district hospitals within one week from the moment of injury.

Right–sided injury was noted in 51 victims (54.8%), left-sided -in 42 (45.2%). Closed fractures were noted in 32 victims (34.4%), hip fractures – in 11 (11.8 %), shin bones – in 21 (22,6 %). Open fractures –in 61 (65.6%), of which the femur – in 19 victims (31.2%), shin bones – in 42 (68.8%).

Open injuries according to the classification of Gustilo R.B., Anderson J.T. were distributed as follows: type I – 26 (42.62% of the total number of open fractures), type II – 19 (31.14%), type III-a –10 (16.39%), type III-b – 6 (9.83 %). Thus, 2 patients through 2.5 months, due to the breakdown of the plate of the AO system on the hip, rheosteosynthesis was performed with a pin with a rod apparatus, spoke osteomyelitis developed in 8 patients (5 hip, 3 shin), delayed consolidation of the shin bones was observed in 9 patients, mixed contracture of the knee joint was noted in 12 patients (7 – operated, 5 – non-operated).

At the same time, to study the dependence of the severity of the injury on the localization of the injury and surgical interventions performed in the abdominal cavity and retroperitoneal space according to vital indications in patients combined with multiple unilateral diaphyseal fractures of the femur and lower leg bones, data were used Pape H.C., Aghajanyan V.V. (2005).

When surgeons performed surgical interventions of the abdominal cavity and retroperitoneal space, according to the indications and condition of the patient, in parallel

or sequentially, traumatologists performed a toilet of wounds (type I) or their primary surgical treatment (type II).

Regarding the time range of osteosynthesis in patients with combined abdominal and musculoskeletal injuries However, according to the literature, there is no consensus.

When choosing the method of osteosynthesis, the general condition of the victims, the presence of concomitant trauma and shock, the age of the patients, the nature of the fracture, the extent of soft tissue damage were taken into account.

The patients we observed were divided into 2 groups: group A, which was treated with a conservative method of treatment, and group B, which was treated with surgical osteosynthesis.

Out of 93 patients with combined abdominal trauma and fractures of the femur and lower leg bones, skeletal traction was treated 36 victims. The main indications for conservative treatment were considered to be: young age with a good or satisfactory ratio of fragments, senile age against the background of cardiovascular insufficiency, as well as severe concomitant damage to internal organs. Of these, 24 patients were treated with double traction – for the condyles of the femur and for the calcaneus. In 12 patients, the skeletal traction system was applied to the thigh; and the lower leg, due to a slight displacement of fragments, was fixed with a plaster cast. Skeletal traction it was carried out in a damped way on a Beler tire. The device makes it possible to develop movements in the knee and hip joints without removing skeletal traction. Plaster fixation was applied after 1.5-2 months, after complete healing of the abdominal wound and the appearance of clinical fusion, without removing the traction.

In 57 patients, surgical intervention on osteosynthesis of bones was carried out to remove the victims from shock, after surgical interventions in the abdominal cavity and retroperitoneal space and stabilization of the general condition. Also 3 patients (3.2%) with open diaphyseal fractures of the femur and lower leg bones, combined with the separation of the kidney (1 patient), intestines and liver (2 patients), fixation of both segments was performed by rod devices on an emergency basis. The remaining 54 patients (58.1%) were performed in a delayed manner (10-14 days after the injury). Indications for surgical treatment were mainly the absence of contraindications to it and the patient's consent to surgical osteosynthesis.

Osteosynthesis of hip and shin bones with bone plates was performed in patients with fractures of type A and B. With a transverse line fractures in the s/3 diaphysis of the femoral bone were fixed with an intramedullary pin inserted retrograde with a rod apparatus. For open fractures, as well as for those patients who, due to an abdominal wound, it was undesirable to apply a plaster cast, osteosynthesis was performed with an Ilizarov extra-focal apparatus or a hybrid spoke-rod apparatus (based on Ilizarov's apparatus).

Dynamic compression plates-screws – DCS were used in fractures of the proximal and distal (b/3 and h/3) femoral diaphyses in 5 patients, maple leaf–shaped plates on the

bones of the lower leg in 6 and "T"-shaped ones in 7 operated in order to achieve stable and stable osteosynthesis, which allows to do without plaster fixation in the postoperative period. With fractures of the c/3 diaphysis of the femur in 4 patients, osteosynthesis was performed with dynamic compression plates DCP, and in 4 with a plate, on the lower leg with a DCP plate in 8 and an author plate in 7 operated.

DISCUSSION

Thus, until now there is no consensus on the most rational tactics for the treatment of such fractures. Many authors prefer conservative treatment, other authors – operative, others use a combination of surgical methods with conservative ones. This clinical study made it possible to conduct a comparative analysis of various methods of osteosynthesis, as well as the time spent in patients with multiple unilateral diaphyseal fractures of the femur and lower leg bones combined with abdominal and retroperitoneal trauma.

CONCLUSIONS:

1. Patients with multiple unilateral fractures of the hip and lower leg bones, combined with abdominal and retroperitoneal trauma, should be monitored and treated in multidisciplinary hospitals or a combined trauma unit with the prescribed staffing units.

When patients are admitted to the hospital with the above injuries, along with anti-shock treatment and surgical interventions, according to vital indications, it is necessary to impose skeletal traction, which is one of the factors of anti-shock treatment and serves as preparation the patient is ready for further surgical osteosynthesis.

3.In case of emergency osteosynthesis, spoke-rod osteosynthesis is indicated.

4. Operative osteosynthesis in patients with multiple unilateral fractures of the hip and lower leg bones, combined with abdominal and retroperitoneal trauma, according to our observations, should be performed after surgical interventions and stabilization of the patient's general condition.

5. The indication for operative osteosynthesis is the absence of contraindications to it and the consent of the patient.

6. Among the methods of operative osteosynthesis in patients with multiple unilateral diaphyseal fractures of the hip and lower leg bones, combined with abdominal and retroperitoneal trauma, the choice is for metal structures that allow to obtain stable and stable osteosynthesis, early activity and early development of movements in both segments of the victims.

LITERATURE:

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