

two months and the patient started to work actively with the ankle joint but without weight bearing. At three months after surgery at radiologic examination bone consolidation was put into evidence. Three months after reconstruction functional score LEM (Low Extremity Measure) was 87% and the patient was full weight bearing. At three months and a half the patient returned to his previous employment.

**Conclusions:** Tibial posterior corticoperiosteocutaneous perforator flap proved to be effective for treatment of infected tissular defects in the calcaneal area with injury of Achilles tendon.

## THE STUDY OF INCIDENCES OF THUMB'S TRAUMA IN LESIONAL COMPLEX OF THE HAND



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**Introduction:** The increased incidence of hand trauma injuries ranks first in the human body. This continually stimulates surgeons ingenuity to find new performant ways in reconstructive methods. Although, they are facing, on the one hand, with complex hand's anatomy complex and, on the other hand, with the obligation to preserve the integrity of the nervous, vascular and tendon system, however, it is real the possibility of a complex reconstruction with similar tissues without creating significant defects.

**Purpose:** Distribution of thumb's lesional incidence in hand's trauma complex and items separation detected depending on the surface and levels of digital beam.

**Material and methods:** In this paper we included a group of 460 patients treated during the 2015 year. The age limits were between 19-70 years, divided into categories of 10 years. The sex ratio of the 79 patients with thumb injury was: 69 (87.34%) men and 10 (12.66%) women. Frequency of trauma registered in left member - 40 (50.34%), was higher than in the right one - 39 (49.67%). 79 (17.17%) patients from total group have suffered thumb's trauma, including: separate thumb - 46 (58.22%) and in complex with other fingers - 33 (41.78%). In thumb's trauma, according to segments, were included patients treated in hospital. Proximal phalanx was found to be most traumatized - 39 (49.36%) cases, followed by the distal phalanx - 37 (46.83%) cases and only in 3 (3.79%) cases have suffered both phalanges.

**Results:** incidents of separate thumb's trauma are met at 46 (58.22%) patients and in complex with other fingers in 33 (41.78%) patients, which constitutes in the ensemble of hand's trauma 17.17%. Processing of obtained material denotes prevalence of incidence of thumb's distal phalanx, but not the severity that manifests more pronounced as it progresses toward its base. This dictated the treatment's management and complexity of performed surgery.

**Conclusion:** Thumb's injuries in complex of hand's trauma are more often met as a separate trauma than in association with other fingers of the hand, with a prevalence in men, and left upper limb is affected with a slightly increased incidence.

**Keywords:** trauma incidence, hand, thumb.

## COMPLICATIONS IN TREATMENT OF TIBIAL BONE DEFECTS USING ILIZAROV PROCEDURE



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**Actuality:** tibial bone defects represents really a challenge to orthopedic specialists because tibia, as one of the biggest bones of the skeleton, often cannot find enough bone "reserves" in the body to compensate the post traumatic losses. Especially in circular defects, this bone tissue "crisis" is felt intractable that the only viable solution to keep member remains callus distraction method. All other methods: vascularized bone, avascular allogeneic transplants, induced membrane method remain applicable in partial or small circular defects. However callus distraction method is a difficult, lengthy and permanently marked by various complications.

**Aim:** to review the complications manifested during treatment of circular diaphyseal tibial defects and the measures undertaken to overcome them successfully.

„ the paper reflects the analysis carried out on 65 clinical cases of treatment of circular tibial defects. The study group was dominated by men – 48 cases, women being 14 cases. The maximum length of recovered tibial bone defect was 21 cm, the minimal - 5 cm. Most common complications were: infection of the tissues around brooches – 100%; soft tissue defects associated with bone defects - 92%; infections of the bone fragments - 17.8%; 56% delayed consolidation; non unions - 18%; brooches breaking - 7%; intraoperative bleeding - 4.7%; non formation of satisfactory regenerated mature bone - 3.8%;

joint stiffness - 88%; segment's shortening - 92%; misalignment - 12%, ankle and foot edema - 18%; reactive arthritis - 15%; allergic and local exematic response- 3%; painful segment - 5.5% and 11% - local osteoporosis.

**Results:** in all patients claimed purpose has been achieved. However, the level of satisfaction of the healthcare professionals and the patient was influenced by installed complications.

**Conclusions:** postoperative complications of tibial bone defects treatment by Ilizarov method are inevitable. This requires a postoperative conduct with frequent monitoring recklessly the period after the surgery.

**Keywords:** bone defects, Ilizarov method, complications.

## SURGICAL MANAGEMENT OF DUPUYTREN'S DISEASE



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**The aim:** Presenting the retro and prospective analysis of the results of surgical treatment of DD through various surgical methods.

**Materials and methods:** In the department of Hand Surgery, during the years 2011-2015, 426 patients (361 (84.7%) men and 65 (15.2%) women) were diagnosed and treated surgically DD. The average age for men 57.3 years and women 59.6 years, mean age 58.5 years. Urban residents 156 (36.7%), rural 270 (63,3%). The number of patients operated on right hand - 246 (57.7%) and left hand - 180 (42.3%).

The most commonly affected finger was IV-129 patients (51.19%); finger V-92 patients (36.51%); III-22 (8.73%); I-8 (3.17%); II-1 (0.4%). One affected finger was detected in 312 patients (73.24%); two fingers in 104 patients (24.41%); three fingers in 5 patients (1.17%); four fingers 5 (1.17%). DD grade III was found in 343 (81%) patients, grade II in 60 (14%) and grade IV 23 (5.4%) patients.

**Results:** In most cases was performed selective fasciectomy with Z-plasty - 326 (75%) patients. 13 patients was performed transverse incisions of McCash's open palm technique, cross finger flap - 12 patients, forearm flaps for hand coverage 3 cases, little finger amputation 2 cases. As part of the surgery in 24 cases was performed arthrolysis with K-wire and at 18 patients was effected capsulotomy.

**Conclusions:**

- Despite of successes in the treatment of orthopedic diseases and of the experience in the treatment of severe forms of Dupuytren's disease, the treatment problem of these patients up to now remains actual.
- Out of our statistics, the vast majority of patients (gr.III-343-81% and gr.IV-23-5.4%) is addressed in advanced degrees of the disease.
- Surgical interventions in Dupuytren's disease requires deep knowledge in anatomy and plastic surgery skills.
- Complication rate is high, and therefore patients should be directed before surgery to a long and difficult treatment.
- Surgical treatment can correct contractures, but the problem remains unresolved relapse and extensions of given disease.

**Keywords:** Dupuytren's disease, Dupuytren's contracture.

## MANAGEMENT OF LOWER LIMB FRACTURES IN PATIENTS WITH DIABETES



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**Purpose:** Analysis of the posttraumatic damage coupled with diabetic polyneuropathy of the pelvic limb and possibilities of healing the defects.

**Material and methods:** A retrospective study was carried out over a period of two years (2014-2016) and included 15 patients with diabetic polyneuropathy. The patients were treated at the Clinic of Plastic Surgery and Reconstructive Microsurgery. The selection criteria included:

- Diagnosis of diabetes with skin and soft tissue ulceration.
- Non-healing traumatic or surgical wounds, with no tendency of healing in diabetic patients.

The 15 patients were divided in 4 subgroups according to the type of surgical procedure performed: split skin grafts, the neighboring flaps, distant flaps, amputation at different levels. The descriptive parameters included: age, gender, the presence of type I or type II diabetes, the location. Additionally, the post-surgery complications were monitored.

**Results:** 15 patients included in this study, out of which 4 women and 11 men were divided into four subgroups based on type of performed surgeries: the neighboring flaps - 4, distant flaps - 2, split skin grafts - 7, amputation in 2 cases. 12 patients had diabetes of type II, and the remaining 3 patients were insulin dependent. The 6 patients who had reconstruction through