

195. SURGICAL TREATMENT OF FRACTURE-DISLOCATIONS OF THE FOREARM

Authors: **Vasile Botezatu, Stefan Cojocari**

Scientific adviser: Ion Vacarciuc, MD, PhD, Associate Professor, Department of Traumatology and Orthopedics

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Unstable fracture-dislocations of the forearm are Monteggia and Galeazzi lesions. Monteggia fractures account for approximately 1% to 2% and Galeazzi fractures account for approximately 7% of all forearm fractures. Distal forearm fractures are far more frequent than midshaft forearm fractures, which occur in about 1 to 10 per 10,000 people per year. One in four radial shaft fractures is a true Galeazzi injuries.

Aim of the study. To make a retrospective study (follow up of two years) of fracture-dislocations of the forearm according to data from medical records, type surgery method used in stabilization of Monteggia and Galeazzi lesions.

Materials and methods. A retrospective study was performed on patients with fracture, dislocation, fracture-dislocations of the forearm, Monteggia(M) and Galeazzi(G) lesions which consecutively were treated in department of Hand Pathology with the application of microsurgical techniques (6 Section) of Traumatology and Orthopedics Clinical Hospital, Chisinau in the period 2015-2016.

Results. A total of 24 patients was analyzed. The gender ration was 1:1, with a predomination a population from rural zone 7:1. According to age, the study group was assigned as follows: <35 years 7 (29.2%), 36 - 49 years 7 (29.2%), 50 - 65 years 8 (33.3%), 66 - 75 years 2 (8.3%). The fractures had the following distribution: ulnar and radial shaft - 7(29.2%) each. The dislocation of the elbow joint were 7 (29.2%). The fracture-dislocations of the forearm were 3 (12.5%), of which the G was in 2, M in 1. Lesion management was in 100% surgical. At the fracture of ulnar shaft (7 cases) were open reduction internal fixation (ORIF) of the fracture with AO plate. In radial shaft fracture (7 cases) ORIF of the fracture with AO plate was used and in one case with radial shaft bone fragmentation (14.2%) intramedullary osteosynthesis with K-wire with external fixation in Ilizarov apparatus was performed. In case of forearm dislocation, closed reduction was performed (one patient); the open reduction was in the other 6 cases with K-wire arthrolysis (KwA). In the case of the M - ORIF of the fracture with AO plate and the open reduction of radial head and with KwA. In the case of the G - ORIF of the fracture with AO plate and with KwA of the distal radioulnar joint.

Conclusions. Monteggia and Galeazzi lesions are rare nosology in orthopedics surgery with the highest incidence occurring people after 35 years. ORIF with plating of the ulnar or radial shaft fractures are the most used method of stabilization.

Key words: unstable fracture-dislocations, Monteggia and Galeazzi lesions, fracture fixation

DEPARTMENT OF PLASTIC AND RECONSTRUCTIVE MICROSURGERY

196. RECONSTRUCTION OF THE AVULSED THUMB WITH NONMICROSURGICAL TECHNIQUES – FUNCTIONAL AND AESTHETIC RESULTS

Authors: **Petru Ciobanu, Daniela Botez, Alina Stan**

Scientific adviser: Mihaela Perlea, MD, PhD, Associate professor

1. Clinic of Plastic and Reconstructive Microsurgery, *St. Spiridon* Emergency Hospital, Iasi, Romania

2. *Grigore T. Popa* University of Medicine and Pharmacy, Iasi, Romania

Introduction. The thumb accounts for almost 50% of hand function, the pulp having a major role in ensuring it. Avulsed injuries lead to disability, so preserving length, position, mobility, sensitivity of the thumb are main goals that must be fulfilled for the techniques used in reconstruction of the thumb and its pulp.

Aim of the study. To evaluate the outcomes of the reconstruction in the emergency of the amputated thumb using isolated or associated homodigital and heterodigital flap techniques in those situations when microsurgical replantation is not possible due to local or general conditions. The study is based on the evaluation of the functional (thumb length, sensitivity, motility active joint movement and cortical reintegration) and aesthetic outcomes.

Materials and methods. Twenty-eight patients aged between 18 and 65 years old, with complete posttraumatic amputation of the thumb at the level of interphalangeal joint or proximal phalanx were evaluated. The aim of reconstruction was to achieve a thumb of proper length, good sensitivity, motility and cortical reintegration of the new pulp. In 6 cases, the reconstruction was done using the Mantero-Bertolotti technique with an O'Brien flap, and in 6 cases the use of a single heterodigital neurovascular Littler flap was sufficient. The association of the two techniques with a Littler's flap instead of the O'Brien flap in the Mantero-Bertolotti reconstruction was the choice in 14 patients. In other 2 cases the reconstruction algorithm included the use of a Foucher (cerf-volant), Simonetta or Hueston flap.

Results. The results have been evaluated based on age, injury complexity, size of the flap, mobility, sensitivity, cortical reintegration of the new pulp. The best average range of motion of the new thumb in those cases in which we applied the associated technique (Littler's flap instead of the O'Brien flap in the Mantero-Bertolotti reconstruction) using Kapandji score (8 score). Regarding the sensibility, we achieved a protective sensibility of the new thumb. At the two point discrimination test (2PD test), the results were between 7 – 11 mm. At the light touch deep pressure test (SW test), all the patients felt the blue monofilament and 24 out of 30 felt the violet monofilament.

Conclusions. The use of isolated or combined homodigital and heterodigital, flap techniques is a proper choice for reconstructing the avulsed thumb in those cases when the microsurgical replantation is not possible. The microsurgical replantation remains the gold standard in thumb amputation.

Key words: thumb, amputation, flap

197. RECONSTRUCTION OF POSTEXCISIONAL DEFECTS FOR PERIOCCULAR GIANT CARCINOMA

Authors: **Alina Mihaela Stan¹, Daniela Botez¹, P. Ciobanu¹, Elena Georgiana Stoica¹**

Scientific adviser: Mihaela Perlea, MD, PhD, Associate professor

1. Clinic of Plastic and Reconstructive Microsurgery, *St. Spiridon* Emergency Hospital, Iasi, Romania

2. *Grigore T. Popa* University of Medicine and Pharmacy, Iasi, Romania

Introduction. The giant basal cell carcinoma is a rare skin malignity, representing only 1% of the basal cell carcinomas. The giant type is defined as the lesion which exceeds 5 cm in diameter. The disease is reported generally in persons in their seventh decade of life, patients with various other pathologies. The excisions within oncological limit lead to large soft tissue defects which, if localized at the periocular region, become a real challenge for the surgeon that has to choose a surgical technique for the reconstruction.

Aim of the study. To show some technical solutions to cover soft tissue defects from the periocular level left after excision for giant carcinomas and their results.