**Results.** The scar excision and local tissue plasty by advancement or transposition was used in 51.61% (16 patients). In 35.48% (11 patients) the substitution of the defect was performed by autodermoplasty, and in 12.9% (4 patients) a vascularized flap was used.

**Conclusions.** The scar sequelae after burn injury limits the function of the upper limb and has a significant influence on the life quality and social integration of the patient, while its surgical correction provide functional recovery of the hand with better aesthetic restoration. **Key words:** burn; scar stiffness; surgical correction

# 190. SURGICAL TREATMENT IN WRIST INSTABILITIES

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**Introduction.** Wrist joint instabilities are ligament injuries associated with subluxations, luxations, fractures, nonunions or osteoarticular diseases of carpal bones. There are type of surgery to resolve these problems.

**Materials and methods.** Our experience is based on the treatment of 129 patients with wrist instabilities of different etiology aged between 17 and 68 years who underwent various selective arthrodesis. The average duration of disease was 3 years and 2 months. Kienbock disease was diagnosed in 41 patients, in various stages, pseudoarthrosis of the scaphoid complicated by deforming osteoarthritis - in 71 cases, rotational subluxation of the scaphoid - in 9 cases, trapezium-trapezoid-scaphoid osteoarthritis – in 4 patients and malunion of the distal radius fracture – in 4 cases.

**Results.** Arthrodesis directed to obtain an ankylosis of the carpal bones by losing the amplitude of movements, but allows to achieve a stable joint, without pain and to restore gripping power. In 71 patients with scaphoid pseudoarthrosis, complicated with deforming osteoarthritis, arthrodesis of 4 carpal bones with scaphoidectomy in different variants was performed in 49 cases, total wrist arthrodesis in 8 cases, scaphocapitate arthrodesis in 4 cases, removing the first row of carpal bones in 3 cases, scaphoidectomy in 5 cases, radial-scaphoid arthrodesis – in 1 case, and 1 other in scapho-trapezium-trapezoid arthrodesis. In 41 patients with Kienbock disease, Graner operation was performed in 16 cases, arthrodesis of 3 carpal bones in 10 cases, capitate-scaphoid arthrodesis – in 8 cases, radial-semilunar – in 4 cases, radial-scaphoid arthrodesis – in 1 case, removing the first row of carpal bones – in 2 cases. Arthrodesis of 3 carpal bones (scapho-trapezium-trapezoid), was performed in 4 cases of deforming arthritis. Also triple scaphoid arthrodesis was done successfully in 9 patients with rotational subluxation of the scaphoid. Total wrist arthrodesis was performed in 4 cases of the intraarticular radial fracture malunion. Long-term results were followed up in 46 patients: good (18), satisfactory (23). Unsatisfactory outcomes were in 5 cases because of absence of the ankylosis and presence of the pain.

**Conclusions.** Selective wrist arthrodesis is indicated in deforming arthritis grade II or III of diverse etiology, when outstanding amplitude movements are up to 50% of normal range.

Each case of selective wrist arthrodesis is chosen individually according to disease, the spreading grade of deforming osteoarthritis and patient profession.

Key words: wrist instabilities, pseudoarthrosis of the scaphoid, Kienbock disease, selective arthrodesis

### **191.** FREE FLAP IN HEAD AND NECK RECONSTRUCTION – OUR EXPERIENCE

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**Introduction.** Reconstruction of defects in the head and neck poses a unique challenge. Unlike other areas of the body, immediate or early closure of head and neck defects is vital for several reasons. Key to success of surgery is choosing an appropriate reconstructive option based on the patient's wishes and necessities. Where possible, free tissue transfer provides the best functional and aesthetic outcomes for the vast majority of defects.

**Aim of the study.** To present an algorithm to guide choice of flap selection based on our clinic experience and review principles of reconstruction and secondary surgery for head and neck defects.

**Materials and methods.** Clinical series of patients undergoing head and neck reconstructions in last decade were analyzed and grouped according to the regions: (1) scalp, (2) oral cavity, (3) mandible and (4) neck and choice of reconstruction by different types of free flaps. The study group was consisted from 14 patients, 10 males and 4 females. Average age was 46 years, with age limits 20 - 66 years. According to etiology, there were 8 defects due to cancer, and 6 defects due to trauma. Defect sizes varied up to 32 cm. Associated lesions were in 3 cases.

**Results.** During last decade in the IEM were performed a total of 12 reconstructions. The radial flap was the donor site in 8 reconstructions, followed by the LD flap - 3, free fibula osseocutaneous flap used in 2 cases and omentum - 1 case. In case of reconstruction of the bone and/or soft tissue (mandibular defects) we recommend to use fibula osseocutaneous flap (2), for medium-sized soft tissue defects (7) - non-innervated radial flap; for large defects and necessity to refill the cavity after bone and muscular resection or in the presence of infected granular wounds/osteitis of cranial bones (2) - LD flap using muscles to cover cavities. In case of massive defects (total or subtotal lack of scalp) it can be used the omentum flap. In case of oral mucosa defects and/or tongue with a possible necessity for further innervation (1), we recommend to use radial flap with reinnervation by suturing lateral or medial cutaneous nerve of the forearm to sensory nerves of the recipient site. 85% of the reconstructions were immediately after excisions or trauma. Surgical re-exploration was necessary in 3 patients; the failure rate from marginal necrosis of the flap was in 2%. Other complications encountered in our group: hematoma -1case, venous deficiency - 1 case, arterial - 1 case. In 1 case was performed titanium plate fixation for parietal bone defect after excision. All flaps survived and all donor sites were closed primarily. After a mean follow-up time of 8.1 (5-18) months, there were no problem with the donor or recipient sites.

**Conclusions.** Head and neck defects can lead to devastating cosmetic and functional deficits with resultant psychological, physical, and nutritional detriment. In our experience, free tissue transfers have been shown to be a successful method for one staged reconstruction in all cases, with flap success rates of 98-99% and low re-explorations rate (2 %). In treatment and choice of reconstruction it is important to determine the goals of reconstruction and to select the most appropriate option for the particular defect.

Key words: free flap, head and neck, reconstruction, algorithm

### **192. SURGICAL TREATMENT OF POSTTRAUMATIC DISTAL RADIOULNAR** JOINT INSTABILITY

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