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REHABILITATION AFTER RECONSTRUCTIVE
HAND SURGERY

Contents

| | |
|-------------------------|-----|
| Foreword | 673 |
| <i>Robert L. Wilson</i> | |

| | |
|--|-----|
| Treatment of Fingertip and Nail Bed Injuries | 675 |
| <i>Erik A. Rosenthal</i> | |

The techniques for treating lacerations, amputations and loss of tissue, and injury of the perionychium are described in detail. The various local and distal flaps used for reconstruction and their appropriate application are also discussed. Rehabilitation of the digital tips is based on adaptation of the sensitive part to gradually increasing frequency and duration of stimulation.

| | |
|--|-----|
| Rehabilitation After Upper Extremity Burns | 699 |
| <i>Earl J. Fleegler and Randall J. Yetman</i> | |

The rehabilitation of the patient with an upper extremity burn begins with the study and understanding of the magnitude of burn problems. The initial care as well as reconstruction of selected chronic deformities is presented to help the physician to develop an approach to some of the more common burn injuries.

| | |
|---|-----|
| Crush Injury of the Upper Limb: Early and Late Management | 719 |
| <i>Peter R. Carter</i> | |

The care of the patient with a crushed upper limb requires accurate assessment, carefully planned and executed surgical procedures, diligence, and reassessment. Often, a long period of rehabilitation is also needed. The quality of care rendered by the surgeon and therapist often affects the patient's functional end result and his chance to regain his ability to provide for himself independently.

Management of the Stiff Hand: A Practical Approach749

Georgiann F. Laseter

Postoperative management of hand trauma is as critical in restoring function as the surgery itself. An integrated program emphasizing edema and pain control, patient education, good positioning, appropriate exercises and splinting, and the use of the hand in functional activities must be designed for each patient individually. In this way, the patient can participate in his or her own rehabilitation.

Nerve Injuries: Management and Rehabilitation767

William L. Lovett and Marcia A. McCalla

The final result of nerve repair depends on the technique of repair, postoperative rehabilitation, and patient motivation. The first two aspects are largely in the control of the surgeon, whereas the significant aspect of patient motivation is controlled by the patient and the therapist together.

Fractures of the Hand779

J. Donald Opgrande and Sharon A. Westphal

Fractures of the hand should be managed so as to achieve accurate and stable reduction and the resumption of active motion in the early phase of fracture healing. Methods are discussed for reducing and retarding edema, which expedites healing. The incidence of complications can be reduced by a carefully supervised therapy program consisting of range of motion exercises, splinting, and functional activities.

Management of Small Joint Injuries in the Hand793

William H. Bowers

The principles of management of small joint injuries of the fingers are discussed. Particular attention is paid to acute capsular injuries, fractures, and chronic capsular problems.

Management and Rehabilitation of Extensor Tendon Injuries811

William L. Lovett and Marcia A. McCalla

The keys to the treatment of extensor tendon injuries are knowledge of the anatomic characteristics of the area, the correct position of immobilization of the wrist and fingers, and the timing for institution of active and resistive exercises.

Management of Acute Flexor Tendon Injuries827*James W. Strickland, M.D.*

Primary or delayed primary flexor tendon repair of both the profundus and superficialis tendons should be carried out in almost all patients. The use of nonabsorbable sutures with a modified Kessler or Tajima repair technique has proved to be effective. Whenever possible, repair of the flexor tendon sheath is appropriate. A well-supervised program of early motion using either active or passive techniques is also beneficial.

Rehabilitation After Amputations in the Hand851*Robert L. Wilson and Margaret S. Carter-Wilson*

It is important to recognize the psychological and cosmetic aspects of amputation. More data are needed regarding the functional loss at various amputation levels so that patients can be counseled more effectively. Rehabilitation and reconstructive surgery can then produce results that will be more meaningful to the patient in terms of employment and everyday use of the hand.

Upper Extremity Replantation873*Joseph E. Kutz, Douglas Hanel, Luis Scheker, and Gustavo Lopez*

The most important determinants of the functional ability of an amputated part are proper patient selection and the recognition of vascular compromise. Ideally, a well-performed anastomosis should need no pharmacologic assistance, but the ideal is often the exception. The authors present an empirical approach to use of anticoagulation medication.

Surgical Treatment of Hands for C5–C6 Tetraplegia893*Robert W. Beasley*

The author describes a three-stage reconstruction for the patient with C5–C6 tetraplegia who has powerful wrist extensors and median sensibility. This procedure gives maximum utilization to the remaining four functional muscles. Triceps substitution by a posterior deltoid transfer is an excellent adjunctive procedure.

Cumulative Index 1981 to 1983905