

BIBLIOTECA
A.A.O.T.
ED. J. L. WEBER

12 ENE, 2000

Structural and Dynamic Bases of
HAND SURGERY

Second Edition

EDUARDO ZANCOLLI, M.D.

*Auxiliary Professor of Orthopedics, University of Buenos Aires;
Chief of Surgery, National
Rehabilitation Center, Buenos Aires*

With a Foreword by

JOSEPH H. BOYES, M.D.

1272

WE
830
1272



J. B. Lippincott Company

Philadelphia and Toronto

1979

Contents

1 Anatomy and Mechanics of the Extensor Apparatus of the Fingers	3
Anatomy	3
Mechanics	37
Conclusions	62
2 Pathology of the Extensor Apparatus of the Fingers	64
Swan-Neck Deformity	64
Boutonnière Deformity	79
Mallet Finger	92
3 Movements of the Thumb—Opposition Mechanics	105
Movements of the Thumb	105
Anatomy of the Trapeziometacarpal Joint	110
Mechanism of Axial Rotation of the First Metacarpal During Opposition and Reposition	119
Conclusions on the Mechanics of Metacarpal Axial Rotation During Opposition and Reposition	126
Mechanism of Stabilization of the First Metacarpal During Opposition and Pinch Grip	128
Summary	135
4 Intrinsic Paralysis of the Median Nerve	136
Classification and Function of the Muscles of the Thumb	136
Symptomatology of Median Nerve Paralysis	142
Surgical Program to Restore Thumb Opposition by Tendinous Transfers	148
5 Intrinsic Paralysis of the Ulnar Nerve—Physiopathology of the Clawhand	159
Symptomatology	159
Clawhand Physiopathology	163
Clinicosurgical Classification of Clawhand	169
Reconstructive Program for Ulnar Intrinsic Paralysis	173
6 Intrinsic Paralysis of the Ulnar and Median Nerves	207
Correction of the Clawhand Deformity of the Fingers	207
7 Functional Restoration of the Upper Limbs in Traumatic Quadriplegia	229
Clinical Material	229
Classification	229
Preoperative Considerations	237

General Reconstructive Program	238
Surgical Sequence	239
Surgical Procedures	239
8 Surgery of the Hand in Infantile Spastic Hemiplegia	263
Criteria in the Selection of Patients for Reconstructive Surgery	263
Surgical Aims	269
Surgical Procedures	270
9 Finochietto's Ischemic Contracture and Nonischemic Intrinsic-Plus Deformities	284
Ischemic Intrinsic Muscular Retraction of the Hand	284
Nonischemic Intrinsic Muscular Contractures of the Hand	304
10 Classification of Established Volkmann's Ischemic Contracture and the Program for Its Treatment ...	314
Classification of Established Volkmann's Ischemic Contracture (Classical Type)	314
Signs of the Different Types of Contracture	318
Surgical Treatment	318
11 Pathomechanics and Correction of the Arthritic Ulnar Drift Before and After Cartilage Destruction ..	325
General Physiopathology of Articular Deformations Due to Rheumatoid Arthritis (Evolutive Periods) ..	325
Normal Balance of the Metacarpophalangeal Joint During Finger Function	326
Physiopathology of the Arthritic Ulnar Drift	332
Preoperative Evaluation	338
Surgical Correction of the Deformity	340
Bibliography	361
Index	369