

CONTENTS

FOREWORD.....	7	4.1.5. Rowe classification.....	38
1. INTRODUCTION.....	9	4.1.6. Wondrák classification.....	38
2. ANATOMY.....	11	4.1.7. Soeur and Remy classification.....	38
2.1. Bone anatomy.....	11	4.1.8. McReynolds classification.....	39
2.2. Topographical anatomy.....	13	4.1.9. Ross and Sowerby classification.....	39
• Lateral surface.....	13	4.2. Classifications based on computed tomography scanning.....	39
• Medial surface.....	14	4.2.1. Zwipp classification.....	39
• Inferior surface.....	15	4.2.2. Crosby and Fitzgibbons classification.....	40
2.2.1. Topographic notes.....	16	4.2.3. Sanders classification.....	40
2.2.2. Anatomical spaces.....	16	4.2.4. Eastwood classification.....	41
2.2.3. Anatomical relations.....	17	4.3. Authors' own classification.....	42
2.3. Pathoanatomy of fractures.....	18	5. THERAPY.....	45
2.3.1. Intra-articular fractures.....	19	5.1. Nonoperative treatment.....	45
2.3.2. Extra-articular fractures.....	23	5.1.1. History.....	45
3. DIAGNOSTICS.....	25	5.1.2. Present state of the art.....	45
3.1. Case history.....	25	5.2. Operative treatment.....	46
3.2. Clinical examination.....	25	5.2.1. History.....	46
3.3. Radiographic diagnosis.....	26	5.2.2. Present state of the art.....	47
3.3.1. Conventional radiographic examination.....	26	• Lateral surgical approach (Palmer).....	47
• Intra-articular structures.....	26	• Medial surgical approach (McReynolds).....	49
• Extra-articular structures.....	27	• Bone defect.....	50
• Landmarks and angles.....	28	• Cartilage damage.....	51
• Internal structure.....	29	5.2.3. Postoperative treatment.....	52
3.3.2. Classic tomography.....	29	6. AUTHORS' OWN OPERATIVE METHOD.....	55
3.3.3. Computed tomographic scanning.....	31	6.1. Diagnosis.....	55
• CT scanning.....	31	6.2. Indication.....	55
• CT scan of fracture.....	31	6.2.1. Aim of the method.....	55
3.3.4. Options of radiographic evaluation of bone structures in individual projections.....	32	6.2.2. Technical equipment.....	55
4. CLASSIFICATIONS.....	35	6.3. Operative technique.....	56
4.1. Classifications Based on Conventional Radiographs.....	35	6.4. Postoperative treatment.....	60
4.1.1. Bohler classification.....	35	6.5. Group of patients.....	60
4.1.2. Watson-Jones classification.....	36	6.6. Evaluation.....	61
4.1.3. Essex-Lopresti classification.....	36	6.7. Results.....	61
4.1.4. Warrick and Bremner classification.....	37	6.8. Discussion.....	64
4.1.5. Rowe classification.....	38	7. COMPLICATIONS.....	73
4.1.6. Wondrák classification.....	38	7.1. Complications caused by trauma.....	73
4.1.7. Soeur and Remy classification.....	38		
4.1.8. McReynolds classification.....	39		
4.1.9. Ross and Sowerby classification.....	39		
4.2. Classifications based on computed tomography scanning.....	39		
4.2.1. Zwipp classification.....	39		
4.2.2. Crosby and Fitzgibbons classification.....	40		
4.2.3. Sanders classification.....	40		
4.2.4. Eastwood classification.....	41		
4.3. Authors' own classification.....	42		
5. THERAPY.....	45		
5.1. Nonoperative treatment.....	45		
5.1.1. History.....	45		
5.1.2. Present state of the art.....	45		
5.2. Operative treatment.....	46		
5.2.1. History.....	46		
5.2.2. Present state of the art.....	47		
• Lateral surgical approach (Palmer).....	47		
• Medial surgical approach (McReynolds).....	49		
• Bone defect.....	50		
• Cartilage damage.....	51		
5.2.3. Postoperative treatment.....	52		
6. AUTHORS' OWN OPERATIVE METHOD.....	55		
6.1. Diagnosis.....	55		
6.2. Indication.....	55		
6.2.1. Aim of the method.....	55		
6.2.2. Technical equipment.....	55		
6.3. Operative technique.....	56		
6.4. Postoperative treatment.....	60		
6.5. Group of patients.....	60		
6.6. Evaluation.....	61		
6.7. Results.....	61		
6.8. Discussion.....	64		
7. COMPLICATIONS.....	73		
7.1. Complications caused by trauma.....	73		

7.1.1. Soft tissue injuries	73	8.1.3. Inability to close the surgical wound	86
7.1.2. Complicated and non-standard types of fractures	73	8.1.4. Postoperative wound breakdown.	86
7.2. Iatrogenous causes	74	8.2. Late defects	89
7.2.1. Wrong indication	74	8.2.1. Osteomyelitis	89
7.2.2. Unsuitable method	74	8.2.2. Reconstruction for unstable skin cover . . .	90
7.2.3. Lack of knowledge of the method	74	9. CALCANEAL FRACTURES IN CHILDREN	93
7.3. Early complications	76	9.1. Incidence	93
7.3.1. Compartment syndrome	76	9.2. Development and anatomy	93
7.3.2. Acute infection	79	9.3. Aetiology	94
7.4. Late complications	79	9.4. Diagnostics	97
7.4.1. Algoneurodystrophic syndrome	79	9.5. Forms of calcaneal fractures in children and their classification	98
7.4.2. Healing in displacement	79	9.5.1. Acute fractures	98
7.4.3. Nonunion	81	9.5.2. Occult and fatigue fractures	99
7.4.4. Chronic osteomyelitis	81	9.5.3. Physeal injury to the calcaneal apophysis	99
7.5. Prevention	81	9.5.4. Dislocation in the pericalcaneal region . . .	99
8. COMPROMISED SOFT TISSUE HEALING	83	9.6. Therapy	99
8.1. Early defects	83	9.6.1. Treatment of acute fractures of the calcaneal body	99
8.1.1. Early defects caused by the impact without bone defect	83	9.6.2. Treatment of fatigue fractures and injuries to the physis of the ossification nucleus of the tubercle .	100
• Medial plantar flap	83	9.6.3. Procedure recommended by the author . .	101
• Medialis pedis flap	84	9.7. Complications and sequelae	104
• Lateral supramalleolar flap	84		
• Sural flap	85		
• Abductor flap	86		
8.1.2. Early defects caused by the impact in combination with a bone defect	86	10. CONCLUSION	107