Part I  Articular and Musculoskeletal Disorder

1  Articular Disorders

1.1 Arthralgia

1.2 Morning Stiffness

1.3 Arthritis

1.3.1 Exudative (Inflammatory) Arthritis

1.3.2 Proliferative Arthritis

1.3.3 Fibrosing and Ankylosing Arthritis

1.3.4 Erosive Arthritis

1.3.5 Non-erosive Arthritis

1.4 Osteoarthritis

1.4.1 Noninflammatory OA

1.4.2 Inflammatory OA

1.4.3 Secondary OA

1.4.4 Erosive OA

1.4.5 Chondrocalcinosis

1.4.6 Chondromatosis

1.4.7 Arthritis and Osteoarthritis

1.5 Arthropathy

1.5.1 Neuropathic Arthropathy

1.5.2 Endocrinological Arthropathy

1.5.3 Metabolic Arthropathy

1.5.4 Hematological Arthropathy

1.5.5 Enteropathic Arthropathy

1.5.6 Paraneoplastic Arthropathy

1.6 Extra-articular Organ Involvement

1.7 Deterioration in General Health

1.8 Impaired Quality of Life
2 Diseases of the Spine ................................................................. 19
  2.1 Back Pain .................................................................................. 19
    2.1.1 Neck Pain ........................................................................... 20
    2.1.2 Thoracic Back Pain .......................................................... 20
    2.1.3 Low Back Pain ................................................................. 21
    2.1.4 Noninflammatory Back Pain .............................................. 22
    2.1.5 Inflammatory Back Pain .................................................. 22
  2.2 Spondyloarthropathy ............................................................... 22
    2.2.1 Spondyloarthritis .............................................................. 23
    2.2.2 Spondylitis, Spondylodiscitis ......................................... 24
    2.2.3 Sacroiliitis ......................................................................... 25
  2.3 Degenerative Spinal Diseases or Mechanical Disorders of the Spine ......... 25
    2.3.1 Disc and Paraspinal Ligament Disorders ............................ 26
    2.3.2 Spondyloarthrosis ............................................................. 26
  2.4 Involvement of the Joints in Diseases of the Spine ............................. 27
    2.4.1 Arthritis ............................................................................. 27
    2.4.2 Osteoarthritis ................................................................. 27
    2.4.3 MRI-Confirmed Syndromes .............................................. 27
  2.5 Malpositioning and Curvature of the Spine .................................. 28
  2.6 Extra-articular Manifestations and Associated Diseases ....................... 29
    2.6.1 Extra-articular Manifestations ........................................ 29
    2.6.2 Associated Diseases and Conditions ................................. 29
  2.7 Deterioration in General Health ................................................ 29
  2.8 Restrictions to Quality of Life .................................................. 30

3 Soft-Tissue Rheumatism and Related Disorders ..................................... 31
  3.1 Cutaneous/Subcutaneous Tissue (Nodules) ................................... 32
    3.1.1 “Rheumatoid Nodules” .................................................... 32
    3.1.2 Tophi ................................................................................. 33
    3.1.3 Heberden’s and Bouchard’s Nodes .................................... 33
    3.1.4 Calcification ....................................................................... 34
    3.1.5 Ganglions ........................................................................... 34
  3.2 Subcutaneous Tissue .................................................................. 34
    3.2.1 Panniculitis ........................................................................ 34
    3.2.2 Panniculosis/Cellulitis ...................................................... 36
    3.2.3 Dercum’s Disease ............................................................. 36
  3.3 Tendons and Tendon Sheaths ..................................................... 36
    3.3.1 Tendinopathy and Tendinitis ............................................ 36
    3.3.2 Tenosynovitis .................................................................... 37
  3.4 Muscles/Fasciae: Localized Tendomyopathies and Tendomyoses .......... 38
  3.5 Muscles/Attachments (Generalized Tendomyopathy or Fibromyalgia) .... 39
  3.6 Insertion Site ............................................................................ 40
    3.6.1 Enthesiopathy, Insertion Tendopathy, or Enthesitis .............. 40
    3.6.2 Fibroostitis or Fibroostosis .............................................. 41
3.7 Fasciae ...............................................................................................................41
  3.7.1 Dupuytren’s Contracture ..................................................................41
  3.7.2 Plantar Fasciitis ....................................................................................41
  3.7.3 Diffuse Eosinophilic Fasciitis ................................................................42
3.8 Bursae (Bursitis) .................................................................................................42
3.9 Ligaments (Joint Instabilities, Deviations and Ruptures) ..................................43
3.10 Bone Marrow ...................................................................................................44
  3.10.1 Osteonecrosis ....................................................................................44
  3.10.2 Osteitis ...............................................................................................45
3.11 Bone (Metabolic Osteopathies, Periostitis) and Cartilage (Relapsing
  Polyochondritis) ................................................................................................45
  3.11.1 Osteoporosis ...................................................................................46
  3.11.2 Osteomalacia ......................................................................................47
  3.11.3 Ostitis Deformans (Paget’s Disease) ..................................................47
  3.11.4 Hypertrophic Osteoarthropathy (Drumstick Fingers) .......................48
  3.11.5 Periostitis ..........................................................................................49
  3.11.6 Relapsing Polyochondritis ................................................................49
  3.11.7 Perichondritis or Synchondrosis Manubriosternalis .........................50
  3.11.8 Osteochondromatosis or Chondroblastoma ......................................50
3.12 Nerves .................................................................................................................50
  3.12.1 Root Compression Syndrome ...........................................................50
  3.12.2 Neuropathies .....................................................................................51
3.13 Periarticular Structures (Periarthropathies) .....................................................51
4 Regional Arthrological and Musculoskeletal Syndromes ..................................53
  4.1 Shoulder .....................................................................................................53
  4.2 Chest Wall and Anterior Chest Wall Syndrome ..........................................54
    4.2.1 Sternoclavicular (Tietze, SAPHO Syndrome, Costochondritis,
          and Arthritis) ..................................................................................55
    4.2.2 Parasternal ........................................................................................55
    4.2.3 Band-like ..........................................................................................56
    4.2.4 Sternal Pain .....................................................................................56
    4.2.5 Thoracic Rigidity .............................................................................56
  4.3 Elbows ............................................................................................................56
  4.4 Wrist ..............................................................................................................57
  4.5 Hands ..............................................................................................................58
  4.6 Changes in the Fingers and Toes .................................................................59
    4.6.1 Deformities in the Fingers and Toes ..................................................59
    4.6.2 Swelling of the Fingers and Hands (“Puffy Fingers”) .......................60
    4.6.3 Dactylitis ..........................................................................................60
    4.6.4 Drumstick Fingers and Hour-Glass Nails ........................................60
  4.7 Foot, Heel .......................................................................................................61
    4.7.1 Calcaneopathy .................................................................................61
    4.7.2 Metatarsalgia ....................................................................................61
    4.7.3 Pain in the Toes ................................................................................61
4.8 Calf Pain ........................................................................................................................................62
  4.8.1 Phlebothrombosis or Thrombophlebitis ........................................................................62
  4.8.2 Rupture of Baker’s Cyst .....................................................................................................62
  4.8.3 Muscle Rupture ................................................................................................................62
  4.8.4 Erythema Nodosum ...........................................................................................................62
4.9 Ankles .........................................................................................................................................63
  4.9.1 (Sub) Acute and Chronic Pain ........................................................................................63
  4.9.2 Acute Swelling around the Ankle (Periarticular) .............................................................63
4.10 Knees .........................................................................................................................................64
  4.10.1 (Sub) Acute Pain .............................................................................................................64
  4.10.2 Chronic Pain ..................................................................................................................64
  4.10.3 Instability of the Joint .....................................................................................................65
4.11 Hips ..........................................................................................................................................65
  4.11.1 (Sub) Acute Pain .............................................................................................................65
  4.11.2 Chronic Recurrent Pain ..................................................................................................65
4.12 Spinal Column .........................................................................................................................66
5 Paraneoplastic Syndromes (PNS) in Rheumatology ..................................................................67
  5.1 Case Description ....................................................................................................................67
  5.2 An Overall Picture of PNS (Definition, Classification, Morphology, and Incidence) ..........68
  5.3 Clinical Aspects ....................................................................................................................69
    5.3.1 The Most Common Admission Diagnoses with PNS ....................................................69
    5.3.2 Vasculitis or Vasculopathies and PNS .........................................................................70
    5.3.3 Connective Tissue Diseases and PNS ...........................................................................71
    5.3.4 Arthritis/Soft-Tissue Rheumatism and PNS .................................................................71
    5.3.5 Treatment-Related (Secondary) Neoplasias .................................................................72
    5.3.6 Criteria for the Suspected Diagnosis of PNS .................................................................73
  5.4 Special Significance of PNS in Rheumatology .....................................................................73
6 Algorithms in Articular and Musculoskeletal Disorders: Integrated Diagnostic Screening Program ..................................................................................77
7 Algorithms in Arthrological and Musculoskeletal Disorders ................................................91
  7.1 From Lead Symptoms to Syndromes ....................................................................................91
  7.2 From Syndromes to Diseases .................................................................................................92
  7.3 Therapeutic Algorithms (as an Example in RA) ................................................................92
    7.3.1 Common Principles ........................................................................................................92
    7.3.2 Therapeutic Concepts ....................................................................................................97
    7.3.3 Algorithms of Individualized Therapy ............................................................................99
  7.4 Prognostic Algorithms ............................................................................................................99
Part II  Connective Tissue Disease (CTD) and Vasculitis Systemic Diseases in Rheumatology

8  General Symptoms ($BVAS = Maximum of 3 out of 63 Points$) ..............................................107
  8.1  Fever of Unknown Origin.................................................................107
  8.2  Weight Loss .....................................................................................109
  8.3  Headache .........................................................................................109
  8.4  CRP and ESR Elevations .................................................................110
  8.5  Fatigue, Exhaustion, Drop in Performance ..........................................110

9  Involvement of Connective Tissue Structures ..................................................113
  9.1  Skin and Mucosa ................................................................................113
      9.1.1  Erythema and Exanthem ...............................................................114
      9.1.2  Ulcerations, Gangrene, or Scarring ..............................................116
      9.1.3  Pustules, Sterile (Pseudofolliculitis), Papulopustular Lesions .......117
      9.1.4  Induration and Tightening of the Skin ...........................................117
      9.1.5  Aphthae, Aphthous Stomatitis ......................................................118
      9.1.6  Alopecia .......................................................................................119
  9.2  Blood Vessels ......................................................................................119
      9.2.1  Small Vessels with Cutaneous Efflorescences .................................119
      9.2.2  Direct Inflammatory Changes in Medium and Large Vessels .......119
      9.2.3  Raynaud Phenomenon ................................................................121
      9.2.4  Acrosclerosis or Osteolysis ..........................................................122
      9.2.5  Intermittent, Arterial, Spinal, Jaw Claudication, and Aortoiliac Disease .........................................................122
      9.2.6  Pulse and Blood Pressure Differences ..........................................123
      9.2.7  Aortic Arch Syndrome ................................................................123
      9.2.8  Teleangectasias ............................................................................124
      9.2.9  Thrombosis (Venous and Arterial) and Thromboembolisms ........124
      9.2.10  Erythromelalgia .........................................................................125
  9.3  Joints and Periarticular Structures ..........................................................125
      9.3.1  Arthralgia .....................................................................................125
      9.3.2  Arthritis .......................................................................................126
      9.3.3  Contractures ................................................................................126
      9.3.4  Luxations, Subluxations, Deviations .............................................126
  9.4  Subcutis and Fasciae .............................................................................127
      9.4.1  Panniculitis ...............................................................................127
      9.4.2  Nodules .....................................................................................127
      9.4.3  Calcinosi Subcutis (Thibierge-Weissenbach Syndrome) ............128
      9.4.4  Eosinophilic Fasciitis (Shulman’s Syndrome) ..............................128
  9.5  Tendons, Tendon Sheaths, and Ligaments ..............................................128
  9.6  Muscles ...............................................................................................129
      9.6.1  Myalgia .....................................................................................129
9.6.2 Myositis.................................................................129
9.6.3 Muscular Calcino sis..................................................130
9.6.4 CK Elevation............................................................130
9.7 Nerves (Peripheral)........................................................131
9.7.1 Polyn eur p athy..........................................................132
9.7.2 Mononeuritis Multiplex or Simplex............................132
9.8 Cartilage...........................................................................133
9.9 Bones or Bone Marrow....................................................133

10 System-/Organ Involvement ...........................................135
10.1 Kidneys (BVAS=maximum of 12 out of 63 points).............135
10.1.1 Arterial Hypertension, Malignant.................................136
10.1.2 Proteinuria....................................................................136
10.1.3 Hematuria........................................................................137
10.1.4 Renal Insufficiency.........................................................137
10.1.5 Clinical Significance of Renal Syndromes.......................138
10.1.6 A Lack of Renal Involvement in CTD and Vasculitis..........138
10.1.7 Genitourinary Tract Involvement......................................139
10.2 Lungs (BVAS=maximum of 6 out of 63 points)...............139
10.2.1 Bronchospastic Syndrome.............................................139
10.2.2 Pulmonary Infiltrations, Possibly Caverns .....................140
10.2.3 Interstitial Fibrosis, Alveolitis, Pulmonary Arterial Hypertension (PAH).........................................................140
10.3 Heart (BVAS=maximum of 6 out of 63 points)................141
10.3.1 Coronary Syndrome....................................................142
10.3.2 Cardiac Insufficiency and/or Cardiac Arrhythmias........142
10.4 Serosa............................................................................143
10.4.1 Pericarditis......................................................................143
10.4.2 Pleuritis...........................................................................144
10.4.3 Peritonitis........................................................................145
10.5 Gastrointestinal Tract (BVAS=maximum of 6 out of 63 points)........145
10.5.1 Diarrhea..........................................................................145
10.5.2 Dysphagia and Swallowing Disorders...........................146
10.5.3 Malabsorption...............................................................146
10.5.4 Hepatolienal Syndrome................................................146
10.5.5 Elevated Liver Enzymes................................................147
10.5.6 Abdominal Pain.............................................................147
10.6 Central Nervous System (BVAS=maximum of 9 out of 63 points)........147
10.6.1 Forms of CNS Vasculitis..............................................148
10.6.2 Clinical Syndromes.......................................................149
10.6.3 No CNS Involvement......................................................149
10.7 Exocrine Glands.............................................................149
10.7.1 Sicca Syndrome............................................................150
10.7.2 Parotid Enlargement.......................................................151
10.8 Eyes (BVAS for eyes and mucosa = maximum of 6 out of 63 points) ........ 152
  10.8.1 Conjunctivitis, Scleritis, Keratitis .............................................. 152
  10.8.2 Uveitis (Iritis, Iridocyclitis) ......................................................... 153
  10.8.3 Retinopathies ............................................................................. 153
  10.8.4 Optic Neuritis or Neuropathy ..................................................... 154
  10.8.5 Periorbital Processes ................................................................. 154
  10.8.6 Strabism ...................................................................................... 155
  10.8.7 Amaurosis Fugax ...................................................................... 155
  10.8.8 Eye Muscle Involvement ............................................................ 155
  10.8.9 Cataract ...................................................................................... 155

10.9 ENT (BVAS = maximum of 6 out of 63 points) ................................ 155
  10.9.1 Throat ......................................................................................... 156
  10.9.2 Nose ............................................................................................ 156
  10.9.3 Ears ............................................................................................. 156

10.10 Blood and Reticuloendothelial System .......................................... 157
  10.10.1 Anemia ...................................................................................... 158
  10.10.2 Thrombocytopenia and Thrombocytosis ..................................... 159
  10.10.3 Leukopenia and Leukocytosis .................................................... 159
  10.10.4 Hemoglobinopathy ................................................................. 160
  10.10.5 Reticuloendothelial Syndrome .................................................. 161

11 (Auto) Immunological Phenomena and Serological Diagnostics ....... 163
  11.1 Connective Tissue Disease (CTD) Serology .................................... 163
  11.1.1 RA Serology .............................................................................. 167
  11.2 Vasculitis Serology ....................................................................... 167
  11.3 Pathogen and Serological Diagnostics .......................................... 169
  11.3.1 Rheumatic Fever .................................................................... 169
  11.3.2 Yersinia-Induced Arthritis ....................................................... 170
  11.3.3 Chlamydia-Induced Arthritis .................................................. 170
  11.3.4 Borrelia Arthritis or Lyme Borreliosis ..................................... 171
  11.4 Antiphospholipid Syndrome ......................................................... 172
  11.5 T- and B- Activation and Dysregulation ...................................... 173
  11.6 Immunomorphological Syndromes ............................................. 175

12 Treatment-Induced and Associated Conditions and Diseases .......... 177
  12.1 Glucocorticoid Therapy ................................................................. 177
  12.2 Conventional Immunosuppressive Therapy ................................... 178
  12.3 Anti-cytokine Therapy .................................................................. 178
  12.4 Associated Conditions and Diseases .......................................... 179
  12.4.1 Chronic Hepatitis B and C ....................................................... 180
  12.4.2 Atherosclerosis ...................................................................... 180
  12.4.3 HIV Infection .......................................................................... 181
  12.4.4 Autoimmune Thyroiditis, Hypothyroidism ............................... 182
13 Integrated Diagnostic Screening Program Staged Diagnostics ........................................183

14 Algorithms for Connective Tissue Disease and Vasculitis ........................................203
   14.1 From Individual Syndromes to Diseases .........................................................203
   14.2 From Combined Syndromes to Diseases .......................................................203

References ......................................................................................................................... 211

Index ................................................................................................................................. 213
Rheumatology
Symptoms and Syndromes
Benenson, E.
2011, XXII, 215 p., Softcover
ISBN: 978-1-84996-461-6