
Index

A

Acceptance and Commitment Therapy (ACT), 92–94
Acupuncture, 150, 151, 293
Adolescents, 254, 255, 257, 260, 261, 264, 265
Anticonvulsants, 69
Antidepressants, 69
Antiepileptics, 281, 282
Antipyretics, 280
Anxiety, 82
Autoimmunity, 12, 236

B

Behavioral therapy (BT), 85–87
Bier block, 207, 208, 291, 292
Biofeedback (BFB), 90–92
Bisphosphonates, 66, 67
Botulinum toxin, 73, 74, 286
Botulinum toxin A, 328
Brain plasticity, 27, 28
Brain stimulation, 220

C

Calcitonin, 67
Cannabis, 287, 288
Carpal tunnel syndrome (CTS), 35
Central post-stroke pain (CPSP), 39
Chronic inflammatory demyelinating polyneuropathy (CIDP), 45
Chronic regional pain syndrome (CRPS), 55, 56
Cognitive therapy, 84
Complex regional pain syndrome (CRPS), 3, 4, 33, 107–111, 179, 207–209, 213, 229, 230, 232, 311, 323

acceptance and commitment therapy, 92–94
acupuncture, 150
acute-warm-peripheral, 11, 12
adjuvants in children, 167
altered cutaneous innervation, 235
altered sympathetic nervous system function, 235, 236
assessment, 80–82
autoimmunity, 12, 236
behavioral therapy, 85–88
brain plasticity, 26–28, 236, 237
budapest criteria, 5
central nervous system, 234, 235
central nervous system alterations, 13
central sensitization, 11
children
 clinical features, 258, 259
 diagnosis, 259, 260
 epidemiology, 253, 254
 fMRI Data, 254, 255
 genetics, 255
 prognosis, 265
 psychological factors, 256–258
 treatment, 260–265
clinical presentation, 230, 231
cognitive therapy, 83–85
diagnosis, 4, 5
 considerations, 79, 80
 criteria, 57, 231
 imaging techniques, 61
epidemiology, 6, 7
fractures, 233
genetic factors, 237
group-delivered interventions, 96, 97
herbs, 153–157
hirudotherapy, 164, 165
incidence, 232

- Complex regional pain syndrome (CRPS) (*cont.*)
- inflammation, 234
 - inflammatory disease, 44–46
 - inflammatory processes, 24–26
 - innovative digital directions, 97, 99
 - intravenous therapies, 180–182
 - investigations, 231, 232
 - medical management, 239, 240
 - mind-body practices, 151, 152
 - motivational interviewing, 94, 95
 - myofascial pain syndromes, 46, 47
 - natural history, 13, 14
 - neurologic, 34–36, 38–41
 - neuromodulation therapies, 188
 - noninvasive brain stimulation, 160, 161
 - novel therapeutic approaches, 240, 241
 - oxidative stress, 12
 - ozone therapy, 163, 164
 - peripheral nerve block, 189–191
 - peripheral nervous systems, 234
 - peripheral sensitization, 11
 - physical exam, 56
 - physiological self-regulation strategies, 88, 89
 - physiotherapy, 238
 - physiotherapy-based interventions, 165–167
 - preoperative considerations, 188, 189
 - prism adaptation therapy, 162
 - psychological factors, 237
 - psychological mechanisms, 13
 - psychological syndromes, 48
 - psychological therapy, 238
 - pulsed electromagnetic field therapy, 161
 - radionuclide bone scintigraphy, 59, 60
 - relaxation-based mind-body techniques, 153
 - risk factors, 7–9, 233
 - severity of disease, 57, 58
 - severity score, 5
 - spinal cord stimulation, 191–196, 198
 - supplements, 158, 159
 - surgery, 233
 - surgical management, 240
 - sympathetic blocks, 182–186, 188
 - sympathetically maintained pain, 9, 10
 - thermography, 59
 - treatment algorithm, 241
 - validated measures, 82
 - vascular diseases, 41–44
- Corticosteroids, 68
- CRPS Severity Score (CSS), 58
- D**
- Deep brain stimulation, 221
 - Deep vein thrombosis (DVT), 43
 - Depression, 82
 - Desensitization, 118
 - Distal symmetric polyneuropathies, 35, 37
 - Dorsal root ganglion (DRG), 292
 - stimulation, 207
- E**
- Erector spinae plane (ESP) block, 327
 - Erythromelalgia, 43
 - Evoked compound action potential (ECAP), 215
- F**
- Fear of pain questionnaire (FOPQ), 83
 - Fluidotherapy, 296
- G**
- Geriatric, CRPS, 311, 312
 - clinical diagnosis, 313–315
 - epidemiology, 312
 - pathophysiology, 312, 313
 - treatment, 315–318
 - Graded exposure, 86
 - Graded motor imagery (GMI), 121, 144, 165
 - Group-delivered interventions, 96
- H**
- Hirudotherapy, 165
 - Hyperbaric oxygen therapy (HBOT), 162–164
 - Hypnotherapy, 300, 301
- I**
- Immunoglobulins, 74
 - Immunomodulators, 283
 - Inflammatory diseases, 44
 - Inflammatory infectious, 50
 - Inflammatory processes, 24–26
 - Intrathecal drug delivery therapy, 196, 198, 199, 201, 202
 - Intravenous ketamine infusion, CRPS, 332–335
 - Intravenous sympathetic block, 328
- K**
- Ketamine, 286

L

- Local anesthetics, 70
- Lumbar sympathetic block (LSB), 325, 326
- Lymphedema, 42

M

- Mindfulness-based interventions (MBIs), 89, 90
- Motivational interviewing (MI), 95
- Motor cortex stimulation, 221, 222
- Muscle relaxants, 282
- Myofascial pain syndromes, 50

N

- Neurogenic claudication, 38
- Neuromodulation
 - cost efficacy, 214
 - deep brain stimulation, 221
 - dorsal column stimulation, 214–217
 - dorsal root ganglion stimulation, 217–220
 - motor cortex stimulation, 221, 222
 - peripheral nerve stimulation, 220
 - transcranial magnetic stimulation, 222
- N-methyl D-aspartate (NMDA), 70
- Nonpharmacologic treatments, 316
- Nonsteroidal anti-inflammatory drugs, 65, 66

O

- Opioids, 72, 283, 284
- Ozone therapy, 164

P

- Peripheral artery disease, 41
- Peripheral nerve block, 189
- Peripheral nerve stimulation (PNS), 207, 208, 220, 336–339
- Peripheral sensitization, 24
- Pharmacologic treatments, CRPS
 - anticonvulsants, 68, 69
 - bisphosphonates, 66
 - botulinum toxin, 73, 74
 - calcitonin, 67
 - corticosteroids, 68
 - immunoglobulins, 74
 - local anesthetics, 70
 - N-methyl D-aspartate, 70, 71
 - opioids, 72
 - topical agents, 73
 - vitamin C, 71

- Pharmacotherapy, 279
 - Physiotherapy-based interventions, 166
 - Postherpetic neuralgia (PHN), 37, 38
 - Pregnancy, CRPS, 273, 274
 - acupuncture, 293
 - alpha-adrenergic agonists, 282
 - antiepileptics, 281
 - anti-inflammatories, 280, 281
 - antipyretics, 280
 - behavioral therapy, 298
 - bier block, 291
 - biofeedback, 299
 - botulinum toxin, 286
 - cannabis, 287
 - chiropractic care, 297
 - clinical symptoms, 276, 277
 - cognitive behavioral therapy, 298, 299
 - contrast baths, 296
 - diagnosis, 277, 278
 - dorsal root ganglion, 292
 - hypnotherapy, 301
 - immunomodulators, 283
 - ketamine, 286
 - medications, 288–290
 - meditation, 300
 - mirror therapy, 297
 - muscle relaxants, 282
 - occupational therapy, 297
 - opioids, 283, 284
 - oral medications, 284, 285
 - pathophysiology, 274–276
 - pharmacotherapy, 279, 280
 - physical therapy, 294, 295
 - psychological, 298
 - radiofrequency ablation, 292
 - spinal cord stimulator, 293
 - sympathetic nerve block, 290, 291
 - topicals, 285, 286
 - tricyclic antidepressants, 281
 - trigger point injection, 290
 - ultrasound, 296
 - Prism adaptation therapy (PA), 162
 - Psychological syndromes, 50
 - Pulsed electromagnetic field therapy, 161
 - Pulsed radiofrequency (PRF), 331
- R**
- Radiofrequency ablation, 292
 - Radionuclide bone scintigraphy, 59
 - Randomized clinical trial (RCT), 329
 - Reflex sympathetic dystrophy (RDS), 312

Rehabilitation, CRPS

- assessment, 114–116, 128, 129, 132–135
- interdisciplinary, 127, 128, 131, 132
- interventions, 116, 117, 129–131, 136–142
- limitation, 142, 143
- medical treatment, 113
- objective measures, 129, 136
- physical therapy, 117, 118
 - assessment, 118, 119
 - interventions, 120–127
 - objective measures, 119, 120

Relaxation training (RT), 88**Rheumatoid arthritis (RA), 44****S**

- Spinal cord stimulation (SCS), 192, 209, 316
- Spinal cord stimulator, 193, 293
- Stellate ganglia block, 184, 324
- Sympathetic blocks, CRPS, 323–325, 329–331

T

- Thermography, 59
- Thoracic outlet syndrome (TOS), 39, 40
- Thoracic spinal cord stimulator, 195
- Thoracic sympathetic block, 327
- Three-phase bone scanning (TPBS), 60
- Topical agents, 73
- Transcranial magnetic stimulation, 222
- Transcutaneous electrical nerve stimulation (TENS), 159, 207, 295
- Tricyclic antidepressants (TCAs), 281
- Trigger point injections, 208, 290

U

- Ultrasound-guided technique, 324

V

- Vascular diseases, 41, 42
- Visual analog scale (VAS), 221
- Vitamin C, 72
- Vitamin K antagonists (VKA), 316