PART III: NON-PHARMACOLOGIC PAIN TREATMENT

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NON-PHARMACOLOGIC TREATMENT

• SELF-MANAGEMENT
• CONSERVATIVE TREATMENT
• COMPLEMENTARY TREATMENT
• INJECTION PROCEDURES
• IMPLANTED DEVICES
SELF-MANAGEMENT

- PHYSICAL ACTIVITY!
  - START AT 5 MIN/DAY, WORK UP TO 30 MIN/DAY AEROBIC ACTIVITY
  - VERY GRADUAL
- SELF-MASSAGE TOOLS
  - THERACANE, BODY BACK BUDDY, ETC
- $25 ON AMAZON.COM
- HOLD TRIGGER POINT WITH LIGHT-MEDIUM PRESSURE FOR 10-15 SEC
CONSERVATIVE TREATMENT

• PHYSICAL THERAPY
  • ONE SIZE DOES NOT FIT ALL!
  • EARLY INSTITUTION
  • EXPERIENCED PROVIDERS
  • TAILORED TREATMENT

• POOL THERAPY
  • BRIDGE TO LAND-BASED PT
  • WARM POOLS
CONSERVATIVE TREATMENT

- BEHAVIORAL MEDICINE
  - RELAXATION THERAPY
  - BEHAVIOR MODIFICATION
  - EDUCATION
  - BIOFEEDBACK
  - COUNSELING/THERAPY – CBT
  - HYPNOSIS
- BENEFICIAL FOR ALL!
- RECOGNIZE THE IMPACT OF MOOD ON PAIN AND VISA VERSA
  - CENTRAL SENSITIZATION
CONSERVATIVE TREATMENT

• COMPLEMENTARY MEDICINE
  • ACUPUNCTURE
  • ACUPRESSURE
  • MASSAGE THERAPY
  • TAI CHI
  • MINDFULNESS MEDITATION
INJECTION PROCEDURES
CHRONIC SPINE PAIN

- Mechanical
  - Scoliosis, Arthritis, Stenosis, Degenerative
  - Facet Arthropathy, Sacroiliac Joint Arthropathy
  - Failed Back/Neck Surgery Syndrome
EPIDURAL INJECTIONS

• EPIDURAL INJECTIONS
  • LOCAL ANESTHETIC + STEROID INJECTED INTO EPIDURAL SPACE SURROUNDING NERVE ROOTS
    • CLEAR INFLAMMATORY MEDIATORS AND REDUCES INFLAMMATION/COMPRESSIÓN
  • INDICATED FOR RADICULAR UPPER EXTREMITY OR LOWER EXTREMITY PAIN
    • BURNING, SHOOTING PAIN IN SPECIFIC DISTRIBUTION TO DISTAL AREA OF LIMB
    • NEUROLOGIC DEFICITS \(\rightarrow\) RADICULOPATHY, "JUST" PAIN – RADICULITIS
  • ALSO INDICATED FOR SPINAL STENOSIS AND POSTHERPETIC NEURALGIA
  • DIFFERENT APPROACHES DEPENDING ON NATURE AND LOCATION OF PAIN
  • RELIEF LASTS 2-4 MONTHS ON AVERAGE
FACET ARTHROPATHY

• PAIN JUST OFF MIDLINE, WORSE WITH EXTENSION/ROTATION
• DOES NOT CAUSE RADICULAR PAIN BUT PAIN CAN RADIATE LOCALLY
• CAN DEVELOP DUE TO ARTHRITIS, MISALIGNMENT
• INJECTIONS:
  • THERMAL ABLATION OF NERVE BRANCH THAT INNERVATES THE JOINT (OLDER)
    • LASTS 6-9 MONTHS, CAN BE REPEATED
  • INTRA-ARTICULAR STEROID INJECTIONS (YOUNGER)
    • LESS EFFECTIVE,
SACROILIAC JOINT INJECTION

• JOINT AT INTERSECTION OF SPINE AND PELVIS
• SIGNIFICANT MOVEMENT AND WEIGHT LOADING
  • CAN DEVELOP PAIN DUE TO ARTHRITIS OR MISALIGNMENT
• PAIN OVER SI JOINT WITH RADIATION INTO BUTTOCK AND POSTERIOR THIGH
• “FABER” PROVOKES PAIN
  • FLEXION, ABDUCTION AND EXTERNAL ROTATION OF HIP
• LOCAL ANESTHETIC + STEROID, LASTS 3-4 MONTHS
PERIPHERAL NERVE INJECTIONS

- ILIOINGUINAL NERVE BLOCK
  - INDICATIONS: ILIOINGUINAL NEURALGIA (GROIN PAIN AFTER INGUINAL SURGERY/TUMOR)
  - STEROID + LOCAL ANESTHETIC – LASTS APPROX 3 MONTHS

- OCCIPITAL NERVE BLOCK
  - Indications: Occipital neuralgia (occipital pain/HA after surgery or tumor)
  - Steroid + local anesthetic – lasts approx 3 months
PERIPHERAL NERVE INJECTIONS

• GENICULAR NERVE BLOCK
  • INDICATIONS: CHRONIC KNEE PAIN, NOT OPERATIVE CANDIDATE
  • DIAGNOSTIC NERVE BLOCK WITH THERMAL ABLATION IF SUCCESSFUL
  • SUCCESS 50/50

• INTERCOSTAL NERVE BLOCK
  ◦ Indications: Intercostal neuralgia, Chronic rib pain (post-thoracotomy)
  ◦ Local anesthetic + steroid
JOINT INJECTIONS

- HIP, KNEE, SHOULDER MOST COMMON
  - PAINFUL OSTEOARTHRITIS OF JOINT
    - DX WITH X-RAY
  - STEROID + LOCAL ANESTHETIC – LASTS APPROX 3 MONTHS
  - HYALURONATE VISCOSUPPLEMENTATION FOR KNEES MAY LAST 6-12 MONTHS
  - ULTRASOUND, FLUOROSCOPY, “BLIND”
INVASIVE INJECTIONS AND IMPLANTED DEVICES
SYMPATHETIC BLOCKS

• DIAGNOSTIC
  • IS THE PAIN SYMPATHETICALLY MEDIATED?

• THERAPEUTIC
  • LOCAL ANESTHETIC – BREAK THE CYCLE
    • SERIES OF SYMPATHETIC BLOCKS + PT FOR CRPS
  • STEROID – LITTLE EVIDENCE
  • CHEMICAL NEUROLYSIS – DENATURE THE NERVES
    • TERMINAL CANCER
SYMPATHETIC BLOCKS

• STELLATE GANGLION
  • NEUROPATHIC PAIN OF THE FACE, NECK, SHOULDER OR UPPER EXTREMITY
    • CRPS, PHANTOM LIMB, PHN

LUMBAR SYMPATHETIC BLOCK

• NEUROPATHIC, SUSPECTED SYMPATHETICALLY-MEDIATED PAIN IN THE LOWER EXTREMITY
  • CRPS, PHANTOM LIMB PAIN, ISCHEMIC PAIN/VASCULAR INSUFFICIENCY
SPINAL CORD STIMULATION

NEUROMODULATION: PROVIDE ALTERNATE INPUT TO SPINAL CORD TO "COVER UP" PAIN

• LEADS IMPLANTED IN EPIDURAL SPACE CONNECTED TO AN IMPLANTED BATTERY SOURCE
  • PATIENTS UNDERGO “TRIAL” FIRST WITH TEMPORARY PERCUTANEOUS LEADS FOR 3-7 DAYS

• MULTIPLE DEVICE COMPANIES, STIMULATION METHODS/PARAMETERS

• INTERNATIONAL NEUROMODULATION SOCIETY:
  HTTP://WWW.NEUROMODULATION.COM/SPINAL-CORD-STIMULATION
SPINAL CORD STIMULATION

• INDICATIONS:
  • NEUROPATHIC PAIN IN LIMBS
    • PERSISTENT RADICULAR PAIN, PHANTOM LIMB PAIN, POSTHERPETIC NEURALGIA, BRACHIAL PLEXUS INJURY
  • FAILED BACK/NECK SURGERY SYNDROME

RAPIDLY CHANGING
  • HIGH-FREQUENCY SCS: EFFECTIVE FOR AXIAL LOW BACK OR NECK PAIN?
  • DORSAL ROOT GANGLION SCS: GROIN PAIN, Ilioinguinal pain, intercostal pain, radiculopathy?
  • NEW WAVEFORMS/PROGRAMMING TECHNIQUES: BURST, HIGH-DENSITY, ETC.
SPINAL CORD STIMULATION

• DOWNSIDES:
  • INVASIVE
  • COMPLICATIONS
    • INFECTION OR MIGRATION RATE 3-10%
  • DIMINISHED EFFECT OVER TIME (5+ YEARS) IN SOME PATIENTS
    • MAY BE LESS WITH NEWER WAVEFORMS
  • DOES NOT TREAT MYOFASCIAL OR MECHANICAL PAIN
  • NOT ALL SYSTEMS ARE MRI-COMPATIBLE
PERIPHERAL NERVE STIMULATION

• SIMILAR TO SPINAL CORD STIMULATION
• INDICATED FOR SPECIFIC NERVES
  • OCCIPITAL NEURALGIA
  • ILIOINGUINAL NEURALGIA
• MAY HAVE A ROLE IN CHRONIC MIGRAINE
• EMERGING FIELD
• INSURANCE COVERAGE CHALLENGING
THANK YOU!

• QUESTIONS OR COMMENTS?