DISCLOSURE

I declare that I have no current financial relationship and/or any commercial interest that may have a direct interest in the subject matter of this presentation. I attest that my presentation will provide balanced view of therapeutic options and will be free of promotional bias.

What Is Interventional Pain Management?

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Things To Discuss

- Opiates Not Ideal
- History
- Training/Education
- Various Interventional Modalities

HISTORY

- Pain - Latin word poena = punishment.

- Greeks were the first to consider pain to be a sensory function that was derived from peripheral stimulation.

- Roman Empire - therapies of heat, cold, massage, trephining, electricity, and exercise were used to treat pain.

- William Morton 1846 discovered GA - Chloroform for L&D.

- 1888 - Cocaine for nerve pain.

- The field is relatively young (1950's).
- Largely originated from post operative pain control from anesthesiologists.
- Evolved from epidural catheters to regional anesthesia to what it is today.

John Bonica 1917-1994

- Age 15 emigrated to NYC. Anesthesia residency Saint Vincent's Catholic Medical Center, Manhattan.

- Created residency programs, chaired departments. Well published.

- Shined shoes, sold newspapers, and . . .

Training

- Hospital affiliated groups have to be credentialed and have to pass a rigorous background check. Stand alone pain clinics/clinicians do not.

- Up until 2004 the ABPMR has “grandfathered” in pain clinicians with a paper exam only.

- Those that lack fellowship training have opted to pursue certification under . . .
  - American Academy of Pain Medicine
    - Nurses can be certified as well
  - American Board of Interventional Pain Medicine
  - Neither are recognized by the American Board of Medical Specialties

- ABMS (American Board of Medical Specialties) only recognizes the following specialties for board certification.
  - American Board of Anesthesia
  - Physical Medicine and Rehabilitation
  - Psychiatry
  - Neurology
  - Family Medicine
  - Emergency Medicine
  - Interventional Radiology

ANESTHESIOLOGY PAIN Management

- Undergraduate school - 4 years
- Medical School - 4 years
- Intern-year Internal Medicine or General Surgery 1 year
- Anesthesia Residency 3 years
- Pain Management Fellowship - 1 year
- Board Certification for Anesthesia and Pain Management.

Interventional Pain Management

- devoted to the diagnosis and treatment of pain and related disorders utilizing interventional techniques.

- nerve blocks, nerve ablation, nerve stimulation, and drug delivery systems.

Bread and Butter

- EPIDURALS (+/- Cervical injections)
  - TRANSLAMINAR
  - TRANSFORAMINAL
  - CAUDAL
- MEDIAL BRANCH BLOCKS OR FACET JOINT INJECTIONS
- SACROILIAC INJECTIONS MAYBE

- Indications: radicular pain, LBP to Cervical pain, herpes zoster, DDD, discal tear, failed back syndrome, etc.

- Technique: Translaminar vs. Transforaminal vs. Caudal

Sacroiliac Joint Injection

- Pain can radiate to groin, buttock much like facet joint pain presents.

FACET JOINT INJECTION

- Indications: axial pain, facet hypertrophy/ degeneration/arthritis
- 2 diagnostic blocks needed before nerve ablation.

Ablative Procedures

- Radiofrequency Ablation (RFA)
- Cryoablation
- Pulsed Radiofrequency Ablation

Sympathetic Blockade

- Stellate injection: Head, Neck, UE
- Celiac plexus injection: Lower Esophagus to mid-colon
- Lumbar sympathetic injection: Lower extremity
- Hypogastric Plexus: Descending colon to rectum, bladder, prostate, external genitalia
- Ganglion of Impar/Walther: Perineum, Distal Rectum, Anus, Vulva

SNS Continued

- Commonly indicated for cancer pain treatments or CRPS (Complex Regional Pain Syndrome)
- Local anesthetic +/- steroids and possible nerve destruction with phenol or alcohol.

Stellate Ganglion

- Head, neck, upper extremities and upper thoracic dermatomes

Celiac Plexus Block

- Nerves for all abdomen except for transverse colon, rectum, and pelvic viscera.
  - Pancreas, liver, gallbladder, stomach to transverse colon.

Hypogastric Plexus Block

* Indicated for gynecological pain and pain from cancers of pelvic area.

Lumbar Sympathetic Block

- Circulation issues in leg, CRPS, leg/hip pain (metastasis).

Ganglion of Impar Injection

- Perineum
- rectum
- genitalia

Other Injections

- Joint/Bursa Injections/aspirations (hip, knee, shoulders, temporalmandibular, etc.), Trigger Point Injections/Botox

Ilioinguinal Nerve Injection

- groin and scrotal pain
- U/S guided
- Cryoablation

Pyriformis Injection

- Buttock and leg pain

http://emedicine.medscape.com/article/1034120-overview

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Lateral Femoral Cutaneous Nerve

- Meralgia Paresthetica
- Compression, entrapment
- Diabetic neuropathy
- Seat belt injury from MVA

discography

- Used as a diagnostic tool to help aid in determining level of nerve compression.
- Used to aid in surgical decision or diagnosis

More Invasive

- Implanted Devices
  - Spinal Cord Stimulator (SCS) Trial AND Implant
  - Intrathecal trial and implant

Intrathecal drug pumps- Pumps that give drugs directly in CSF to target pain signals in spinal cord. Able to give much lower doses of drugs for fewer side effects.

Spinal Cord Stimulation (SCS)

- Stimulating electrodes next to spinal cord that replaces pain sensation with pleasant tingling sensation.

Trial Stimulation: Temporary Percutaneous Lead

Unique opportunity to test drive stimulation

- Lead implanted and secured to skin
- Allows for test stimulation of several days
- Determine if SCS is the right therapy option for patient based on trial experience and pain reduction

Comprehensive Pain Management

- Medications and procedures
- Physical Therapy/Aqua Therapy
- Psychiatric counseling - anxiety, depression, biofeedback, hypnosis
- Yoga/Tai Chi
- Acupuncture
- TENS units
- Bracing

When and who to refer?

- 42M sneezed and has leg weakness x 1 day
- 72F presents with bowel/bladder incontinence with history of lumbar spondylolisthesis

- 38M construction worker with progressive LBP.
  - no deficits or neurologic findings
  - radiates down buttocks down to bottom of foot
  - ongoing for 2 weeks
  - was getting better and now plateaued

- 78F “back pain all my life”
  - pain getting progressively worst
  - axial in nature
  - no concerning physical exam findings
  - MRI shows DDD, facet arthritis

- 83M with progressive LBP.
  - Used to walk 2 miles/day but progressively walking less.
  - Grocery store - leaning on shopping cart
  - MRI - Ligamentum hypertrophy causing spinal stenosis.

- 45M Carpenter, smoker, chronic nonspecific LBP
  - Failed OTC NSAIDS, failed PT
  - Considering starting opioids or asking for earlier and more opioid refills.

- 33F Fibromyalgia and started on opioids.
  - Now on Morphine ER 300mg/day and Percocet 10/325mg 6x/day.