UVM ECHO -- Chronic Pain

Facilitators:
• Mark Pasanen, MD
• Liz Cote

Faculty:
• Patti Fisher, MD
• Amanda Kennedy, PharmD
• Charles MacLean, MD
• Sanchit Maruti, MD
• Rich Pinckney, MD, MPH
• Carlos Pino, MD
• Jill Warrington, MD
Introduction to ZOOM

• Mute microphone when not speaking
  • If using phone for audio, please mute computer
  • If using phone,*6 is used to mute/unmute

• Position webcam effectively (and please enable video)

• Test both audio & video

• Use “chat” function for:
  • Attendance—type name and organization of each participant upon entry to each teleECHO session
  • Technical issues

• We need your input!
  • Use “raise hand” feature; the ECHO team will call on you
  • Please speak clearly
No Relevant Disclosures

Planners:
• Elizabeth Cote
• Joan Devine, BSN, RN
• Sarah Morgan, MD, Medical Director Planner
• Mark Pasanen, MD
• Charles MacLean, MD

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CME Disclosures

Northern Vermont Area Health Education Center (AHEC) is approved as a provider of Continuing Medical Education (CME) by the New Hampshire Medical Society, accredited by the ACCME. Northern Vermont AHEC designates this educational activity for a maximum of 1.5 Category 1 Credits toward the AMA Physician’s Recognition Award.

Interest Disclosures:

• As an organization accredited by the ACCME to sponsor continuing medical education activities, Northern VT AHEC is required to disclose any real or apparent conflicts of interest (COI) that any speakers may have related to the content of their presentations.
• RECORDING OF SESSION TO BEGIN
Interventional Pain Medicine

Carlos A. Pino, MD, FASA
Professor of Anesthesiology and Pain Medicine
Director, Center for Pain Medicine
Robert Larner MD College of Medicine
Objectives

• Describe basic indications for interventional procedures
• Understand basic anatomy
• Understand differences between diagnostic and neurolytic nerve blocks
Treatment Options for Chronic Pain

• Pharmacologic

• Behavioral Medicine (CBT, biofeedback, relaxation therapy, counseling, etc.)

• Physical Medicine/Rehabilitation/OT (rehab, PT, chiro, exercise, yoga, massage, etc.)

• Interventional (nerve blocks, neurolysis, neuromodulation, etc.)

• Surgical

• Non-traditional (acupuncture, reiki, etc.)
Interventional Pain

• Complementary role
• Part of a multidisciplinary and integrative approach
• Inconsistent results (heterogeneous populations)
• Most nerves can be blocked, BUT not permanently
• Many procedures not covered by insurances
  • Cost to the patient
Nociception

Nerve Blocks

• Block a specific nerve that needs to be identified (diagnostic)

• Local anesthetics of varying duration

• Steroids (anti-inflammatory effects & blunt nociceptive fibers)

• Neurolytics (alcohol or phenol)

• Thermal neurolysis (RFA)

• Neuromodulation
Radicular Pain
Lumbar epidural
Lumbar Epidural Steroid Injection
Transforaminal epidural
Transforaminal Injection of Steroids
Facet Pain

- Dominant Severe localized
- Referred pain
  - Moderate
  - Mild diffuse

Images A and B show magnetic resonance imaging (MRI) scans of the lumbar spine.
Neuromodulation

• Gate control theory

• External – TENS
  • High frequency vs. Low frequency vs. burst

• Internal/implantable
  • Central – deep brain stimulation
  • Spinal cord stimulation
  • Peripheral stimulation
Risks of Perineural Procedures
Radiofrequency Ablation
Left C7 Stellate
Dorsal Column Stimulation
Dorsal Column Stimulation
Spinal Cord Stimulation
Dorsal Root Ganglion Neuromodulation
Intercostal Neurolysis

• 60% pts. pain-free 1-8 weeks

• Complication rate (<0.1%)
  • Pneumothorax
  • Neuritis (alcohol)

• <40% pts. no relief

• Doyle D. Practioner, 1982;226:539
Celiac Plexus Neurolysis

- Described by Kappis in 1919
- Formed by greater, lesser & least splanchnic nerves originating in rami communicantes T5-12
- Pre/post ganglionic sympathetic efferents, preganglionic parasympathetic & visceral afferent fibers
- Superior & inferior to celiac artery
- Percutaneous, surgical, endoscopic
Celiac Plexus Neurolysis

- Retro/transcrural
- Fluoroscopy/CT
- 90% pain-relief 1 week
- 90% partial/complete relief at 3 months
- 70-90% adequate relief until death
- ↓ Opioid consumption


Mercadante S. Pain, 1993;52:187-192
Implantable Intrathecal Delivery

- Completely implantable
- Low dose → minimize side effects
- Reservoir → Infrequent refills
- Initial high cost
- Cost effective if survival > 3 months (compared to epidural)

Intrathecal Pump
Thank You
Questions
• RECORDING TO BE STOPPED
Case Presentation

The discussion and materials included in this conference are confidential and privileged pursuant to 26VSA Section 1441-1443. This material is intended for use in improving patient care. It is privileged and strictly confidential and is to be used only for the evaluation and improvement of patient care.
ECHO Reminders

• Volunteers to present cases
  • Use the case presentation form template

• Please complete evaluation forms for each session
  • CME will be processed once session evaluation form is received at UVM

• UVM Project ECHO materials available at www.vtahec.org

• Please contact us with any questions/suggestions
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