Learn the latest treatment strategies and multidisciplinary management options for patients with acute and chronic pain.
A Clinical Approach to Neck Pain

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Pain Medicine For The Non-Pain Specialist
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Disclosure Statement

• Nothing to disclose
Learning Objectives

After completion of this activity the participants will be able to:

• Identify the features of common sources of neck pain.
• Identify the characteristics of “red flag” sources of neck pain.
• Identify a general clinical framework in the assessment and conservative treatment of neck pain.
Neck Pain is a common problem

- About 2/3 of the population have neck pain during their life, with the highest prevalence during middle age\(^1,2\)

- Lack of consensus in the medical community for evidence based care pathways

A Variety of Pathways Exist: Spine Pain

PMR
Primary Care
Emergency Med
Prev Med
Geriatrics
Endocrinology
Neurology
Oncology
Ortho Surgery
Neurosurgery
Rheumatology
Pain Medicine
Neck Pain comes in different flavors

Axial

Discogenic
Bone

Myofascial
Facet

Facet Radiculopathy

Myelopathy
Radiculopathy

Limb

RED FLAGS: CANCER, INFECTION, CERVICAL MYELOPATHY, FRACTURE, AUTOIMMUNE DZ, RADICULOPATHY
Axial Neck Pain

- Myofascial
- Facet
- Bone pain
- Discogenic

An accurate diagnosis can be difficult

Diagnosis → Treatment → Preserved Functioning + Reduced Pain
Axial Neck Pain
Which of these causes of low back pain have evidence based treatments available?

- Myofascial
- Facet
- Bone pain
- Discogenic
Upper Limb Pain

• Radiculopathy
• Cervical myelopathy

An accurate diagnosis can be difficult

Preserved Functioning

Reduced Pain
Upper Limb Pain
Which of these causes of low back pain have evidence based treatments available?

- Radiculopathy
- Cervical Myelopathy
Neck pain is complicated


Spine Pain Red Flags – do not miss…

- **Cancer**
  - Persistent/worsening pain > 1 month
  - Unexplained weight loss
  - Previous history of non-skin cancer (positive likelihood ratio 14.7)
  - Age > 50 years
  - No relief with bedrest

- **Infection**
  - History of IV drug use, urinary tract infection or skin infection

- **Cervical Myelopathy**
  - Spasticity in arms/legs
  - Urinary urgency

- **Fracture**
  - Corticosteroid use
  - Age > 50 years
  - Trauma; pain intensity

- **Ankylosing Spondylitis/Rheumatoid Arthritis/Polymyalgia Rheumatica**
  - Age < 40 years
  - Chronic onset, duration > 3 months
  - Morning stiffness > 30 minutes
  - Improvement with exercise but not rest
  - Awakening during second half of night only
  - Alternating buttock pain

- **Herniated Disc or Radiculopathy**
  - Positive straight leg test and crossed straight leg test
  - Motor/sensory deficit, DTR changes

Cervical Myofascial Pain

• Pearls
  • May have spasms or “knots” in tissue

• Physical Examination
  • Pain distribution is along muscle/trigger point patterns*
  • Neuro WNL

• Testing
  • Cervical x-ray if pain > 6 wks or if red flags (+)

• Treatment
  • Core treatment plan*
  • PT: stretches, strengthening
  • Trigger point injections

*Core Treatment Plan
• Reassure
• Educate
• Consider acetaminophen and NSAID medications
• Rare use of opioids may be considered
• Heat
• Encourage activity, bed rest is not recommended
• Address fear-avoidance beliefs (fear of activity)
• Return-to-work assessment
• No imaging

Cervical Facet Joint Pain

• Pearls
  • More likely with increased age

• Physical Examination
  • Cervical extension and rotation
  • Reduced range of motion
  • Neuro WNL

• Testing
  • Cervical xray if pain > 6 wks or if red flags (+)

• Treatment
  • Core treatment plan*
  • PT: stretches, strengthening
  • Radiofrequency ablation

*Core Treatment Plan
• Reassure
• Educate
• Consider acetaminophen and NSAID medications
• Rare use of opioids may be considered
• Heat
• Encourage activity, bed rest is not recommended
• Address fear-avoidance beliefs (fear of activity)
• Return-to-work assessment
• No imaging

Cervical Discogenic Pain

- Pearls
  - More likely with younger patients

- Physical Examination
  - Patients may tilt head or support arm during office visit
  - Pain reproduced with axial loading, neck flexion/extension
  - Neuro WNL unless radiculopathy present

- Testing
  - Cervical xray/MRI if pain > 6 wks or if red flags (+)

- Treatment
  - Core treatment plan*
  - PT: mobilization
  - Epidural steroid injections, provocative discography
  - Spine surgery

*Core Treatment Plan
- Reassure
- Educate
- Consider acetaminophen and NSAID medications
- Rare use of opioids may be considered
- Heat
- Encourage activity, bed rest is not recommended
- Address fear-avoidance beliefs (fear of activity)
- Return-to-work assessment
- No imaging

Cervical Bone Pain

• Pearls
  • More likely with osteoporosis, malignancy, steroid exposure, elderly, significant trauma

• Physical Examination
  • Focal pain over spine
  • Any movement of spine is severely painful
  • Spasms may be significant
  • Neuro WNL

• Testing
  • Neck xray if pain > 6 wks or if red flags (+)

• Treatment
  • Core treatment plan*
    • PT: DLS, core strengthening, bracing
    • Percutaneous Vertebral Augmentation (i.e. vertebroplasty, kyphoplasty)

*Core Treatment Plan
  • Reassure
  • Educate
  • Consider acetaminophen and NSAID medications
  • Rare use of opioids may be considered
  • Heat
  • Encourage activity, bed rest is not recommended
  • Address fear-avoidance beliefs (fear of activity)
  • Return-to-work assessment
  • No imaging

Cervical Radiculopathy

- **Pearls**
  - Neuropathic descriptors: burning, tingling, electric shock

- **Physical Examination**
  - Neuro may reveal changed motor/sensory/DTR to C5-T1 spinal segments

- **Testing**
  - Cervical MRI if pain > 6 wks or if red flags (+)
  - EMG if clinical suspicion, weakness

- **Treatment**
  - Core treatment plan*
    - Reassure
    - Educate
    - Consider acetaminophen and NSAID medications
    - Rare use of opioids may be considered
    - Heat
    - Encourage activity, bed rest is not recommended
    - Address fear-avoidance beliefs (fear of activity)
    - Return-to-work assessment
    - No imaging
  - PT: mobilization, strength maintenance in affected region
  - Epidural steroid injection
  - Spine surgery

Cervical Myelopathy

• Pearls
  • May report weakness in arms and legs, difficulty with coordination, loss of control of bowel/bladder function
  • Most commonly occurs age 50-70 years old

• Physical Examination
  • Neuro: upper motor neuron syndrome with hyperreflexia/spasticity, spastic gait pattern; +/- Lhermitte's Sign

• Testing
  • Urgent MRI

• Treatment
  • Urgent consultation from Spine Surgeon

Summary: Neck Pain

Axial  ←  Limb

Discogenic  Myofascial  Myelopathy
Bone  Facet  Radiculopathy

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References


Questions & Discussion