NOVEMBER 2023 VIRTUAL MEETING

LOW BACK MEDICAL OVERVIEW (DR. K. RADCLIFF

Anatomy/Treatment/Compensability

I. Basic Anatomy

Orthopedic and neurologic

Bones

Discs

Bulge
Protrusion
Herniation
Extrusion

Neurologic considerations

Radiculitis
Radiculopathy
Myelopathy
Spinal cord v. nerve root compressions
Stabilizing soft tissues [muscles, ligaments, tendons]
Alignment [retrolisthesis/anterolisthesis]

Degenerative conditions

Osteoarthritis/Stenosis
Disc desiccation
Spondylosis
Spondylolisthesis

Adjacent disc disorders

Pain generators.

Pseudoarthrosis [testing to confirm/options for treatment].

Chronic Versus Acute Considerations

- Sacroiliac joint injuries [frequency of failure to consider this specific pathology in "low back" claims]

- Other significant anatomic considerations including onset of documented symptomatology post-trauma/exposure as relevant considerations to temporal causality.

II. Treatment Protocols

Relevant Diagnostics (and clinical indications for same)

X-rays
CT Scan (contrast/non-contrast)
MRI [contrast, non-contrast
EMG
Discography
Myelogram
Post-myelogram CT

Clinical Evaluation

- Significant clinical testing maneuvers
- Most common causes of low back pain post-trauma [i.e. the part(s) of the spine which is/are actually injured causing a pain presentation].
- Most common non-surgical treatment protocol for low back pain following trauma.
- Most common differential and/or multiple diagnostics post-traumatic low back pain.
- Most common physical therapy [length] for trauma related low back pain of a presumptive non-surgical nature.
- Main factors influencing surgery versus non-surgery treatment options.
- Goals of non-surgical treatment.
- Miscellaneous factors influencing surgical versus the non-surgical conditions: – Age, patient's activity level, smoking status, obesity, important other health considerations negating either efficacy and/or eligibility for spinal surgical intervention; radicular v. non-radicular presentation, true clinical radiculopathy, single v. bilateral radiculopathy, spinal/joint stability/alignment, pre-existing spinal conditions, prophylactic surgical considerations; vertebral fractures, vertebral instability, pseudo arthrosis.
- Criteria for injection modalities and type of injections.

Surgical Options Criteria

- Long-term prescription medications, including muscle relaxants, opiates, and neurologic medication.
- Single v. multilevel microdiscectomy –
- Laminectomy/foraminotomy, instrument fusion [single v. multilevel]. [Anterior and posterior approach.]
- Artificial disc replacement [single level, multiple level], relative efficacy [artificial disc v. instrumented conventional fusion].
- Cost consideration regarding instrumented fusion vs. artificial disc replacement.
    - Vertebral instability/fracture issues
- "Minimally invasive" surgical procedures [risk/benefits].
- Common physical therapy protocols post low back spinal surgery.
- Criteria for "pain management" post-surgery/most frequent options.
- Significance of Functional Capacity Evaluation as an "objective" test regarding treatment protocol and/or return to work.
- Role of chiropractic medicine in acute injury management and/or health maintenance.
- Spinal cord stimulator/criteria for most-efficacious results.
- Prediction of surgical outcome.

III. Etiologies of Need for Treatment

- Types of acute trauma causing original injury.
- Acute trauma causing aggravation acceleration and/or exacerbation of pre-existing condition[s].
- Types of relevant repetitive stress exposure/ergonomics.

Biomechanics of pathology

- Deflexion, rotation, lateral/torquing forces, flexion/extension; hyperflexion, hyperextension, blunt trauma

- Altered gait issues regarding lower extremity and/or hip problems causing or aggravating low back conditions.

- Ergonomic/postural considerations.

IV. Miscellaneous Considerations

- Most frequent "red flags" regarding treatment considerations/options.

- Additional relevant considerations.