Diagnosis and Management of Lumbar Spinal Stenosis

<table>
<tr><th>Lumbar Spinal Stenosis (LSS)</th><th>Evidence-Based Management</th></tr>
<tr><td>1. LSS with Neurogenic Claudication (central stenosis)
• Location: Widespread lower extremity pain with or without LBP.
• Signs/Symptoms: Aching, cramping, or burning in legs. May include tingling, paresthesia, numbness, weakness, and balance difficulties. Aggravated by extension (e.g., walking, standing); relieved by forward bending, sitting, or lying down.
• Exam: Pain reproduced by physical tests; possible neurological deficits.</td><td rowspan="2">Core Interventions:
• Education: Explain LSS, emphasize activity, reassure conservative care can help.
• Address yellow flags: Early identification of fear-avoidance, depression; consider education, CBT.
• Maintain activities of daily living: Prevent deconditioning.
• Self-care: Encourage activity, healthy diet, good sleep, stress management, healthy weight, no smoking/substance abuse.
• Exercise therapy: Walking, functional, flexion-based, strength training (home or supervised).
• Ongoing follow-up: To align with treatment goals.
• Referral: For worsening symptoms or failed treatment (e.g., significant neurological deficits, severe unresponsive pain).
Optional Interventions:
• Manual therapy: E.g., Spinal manipulation, mobilization, soft tissue techniques, massage.
• Medications: Consult with medical provider. E.g., SNRIs, TCAs. Avoid long term use and opioids.
• Psychological support: E.g., To manage anxiety, depression.
• Mind-Body: E.g., Mindfulness, meditation, tai chi.
• Assistive Devices: E.g., Walkers, canes to facilitate functional independence.
• Multimodal Care: E.g., Combine exercise, CBT, manual therapy.</td></tr>
<tr><td>2. LSS with Radicular unilateral leg pain (lateral recess or foraminal stenosis)
• Location: Unilateral lower extremity pain with or without LBP.
• Signs/Symptoms: Pain following a dermatomal pattern associated with a nerve root. Aggravated by extension (e.g., walking, standing); less influenced by postural changes.
• Exam: Pain reproduced by physical tests; possible neurological deficits.</td></tr>
<tr><th colspan="2">Red Flags: Immediate Referral to Emergency Care</th></tr>
<tr><td colspan="2">1. Cauda Equina Syndrome: Saddle anesthesia, bladder/bowel dysfunction, bilateral radicular signs.
2. Spinal Infection: Immunosuppression, recent infection or surgery, TB (tuberculosis) history, unexplained fever/chills, IV drug use, poor living conditions.
3. Traumatic Spinal Fracture: Severe trauma.</td></tr>
<tr><th colspan="2">Referral to Medical Provider</th></tr>
<tr><td colspan="2">1. Non-traumatic Spinal Fracture: Sudden onset, localized severe pain, osteoporosis, corticosteroid use, female sex, older age (>60), history of spinal fracture or cancer.
2. Spinal Malignancy: Progressive pain, history of cancer, constitutional symptoms (e.g., fatigue, weight loss).
3. Inflammatory Arthritides (e.g., spondyloarthropathies): Morning stiffness >1 hour, constitutional symptoms (e.g., fatigue, weight loss, fever), symmetrical joint pain, joint swelling and deformity.
4. Referred Pain: (from abdominal/pelvic visceral conditions): Abdominal or pelvic tenderness.
5. Cervical Spondylotic Myelopathy: Gait disturbances, hand clumsiness, non-dermatomal numbness /weakness, bowel/bladder dysfunction, coordination problems.</td></tr>
<tr><td>Orange Flags (Psychiatric Disorders): Major depression, personality disorders, PTSD, substance addiction and abuse.
Action: Refer to appropriate provider/psychiatric specialist.</td><td>Yellow Flags (Psychosocial Factors): Fear of movement, poor recovery expectations, depression, anxiety, work-related or family issues, litigation or compensation claims, maladaptive coping mechanisms.
Action: Address these as part of conservative care, co-manage, or refer to an appropriate provider.</td></tr>
</table>