LUMBAR SPINE DISORDERS:

Useful clinical points for the Primary Care Provider (in 15 minutes or less!)

Dan Albright, MD djalbright@raleighortho.com September 24, 2011

Anatomy: 5 lumbar vertebrae, discs, and nerves. Lordosis. No scoliosis.
Normal Aging (disc dehydration, bulging and thinning, some bone spurs).
Some arthritic change is *normal* in 40 year old and older patients.

Patho-anatomy: Stenosis (congenital or degenerative). Herniated disc. Instability (listhesis, scoliosis, fracture)

History

Chief Complaint: what *exactly* is the specific complaint?
Back pain? Leg pain? Weakness? Stiffness? Decreased activities?
Capture your bullet points for symptoms: How long? How often? How did it start? What helps? What hurts? Improving? Worsening? How's your function? Pain intensity? (zero to ten). Sleeping?
Any secondary gain incentive? worker's compensation injury; liability / lawsuit case (e.g. MVA)
RED FLAGS: Cancer. Infection. Fracture. Cauda equina syndrome (saddle anesthesia, bladder dysfunction, major or worsening weakness in the legs)

Physical Examination: Mostly *subjective* physical findings. Musculoskeletal and neurologic.
Gait, posture, coordination, toe walk (S1), heel walk (L4, L5), squat (L3)
Straight leg raise testing vs. Femoral stretch test. Hip rom. Faber test. Ober test.
Organic (e.g. spasm, reflex changes, atrophy) versus
Non-organic findings ------> Hypersensitivity to touch, dramatic overreactions and odd behavior, e.g. with toe walking and heel walking, torso twist test, axial load test of shoulders or neck, distraction tests (e.g. straight leg raise), non-anatomic numbness or weakness

Differential Diagnosis. First, distinguish:
(1) *Axial*, non-radiating low back pain (most common) from (2) radiating *radicular* pain down the leg
Referred pain from elsewhere, e.g., the hip joint, sacro-iliac joint, AAA, prostate, or a visceral abdominal organ.
Instability (sagittal or coronal plane). Trauma: fracture (unusual); low back strain (very common)
Stenosis. Spinal / neurogenic claudication vs. vascular claudication

Treatment

Usually non-surgical. Minimize passive modalities and narcotics. Minimize bedrest.
Emphasize independence, good spine mechanics, weight loss.
For low back pain (NO nerve pain): *muscle fitness and low impact aerobic exercise (swim, bike).*
Physical Therapy. Medications (keep it simple). Benign neglect and the placebo effect.
When should you order X-Rays? Usually wait one month. When order a MRI?
Work status: In general, keep most people working in a light duty capacity at least. The longer a patient is out of work, the tougher it is to return to work. Beware the psychology of back pain! (helplessness, dependency)

When should you refer to a spine specialist?

Neurologic compromise (functional deficit, substantial weakness, any bowel/bladder compromise)
Red Flags. Unmanageable pain. Unsuccessful conservative treatment

Surgery works for very specific indications: nerve compression causing radicular leg pain; instability.
Surgery is less predictable in curing generic back pain. Try to avoid surgery for routine back pain.