Low back pain diagnosis

In 85 % of cases no specific diagnosis can be made.

History

Work status

Typical job tasks

Educational level

Pending litigation

Workers compensation or disability issues

Failed previous treatments

Substance abuse

Depression.

Diagnosing common LBP implies that the pain is not related to conditions such as fractures, spondylitis, direct trauma, or neoplastic, infectious, vascular, metabolic, or endocrine-related processes [1) 2)].

Physical examination

Low back pain physical examination.

Imaging

Imaging is important in the evaluation of patients with degenerative disease and infectious processes. There are numerous conditions that can manifest as low back pain (LBP) or neck pain in a patient, and in many cases, the cause may be multifactorial. Clinical history and physical examination are key components in the evaluation of such patients [3)].

However, physical examination has variable sensitivity and specificity.

Although studies have demonstrated that uncomplicated acute LBP and/or radiculopathy are self-limited conditions that do not warrant any imaging [4) 5) 6)] , neuroimaging can provide clear anatomic delineation of potential causes of the patient's clinical presentation. Various professional organizations have recommendations for imaging of LBP, which generally agree that an imaging study is not indicated for patients with uncomplicated LBP or radiculopathy without a red flag (eg, neurological deficit such as major weakness or numbness in lower extremities, bowel or bladder dysfunction, saddle anesthesia, fever, history of cancer, intravenous drug use, immunosuppression,

trauma, or worsening symptoms). Different imaging modalities have a complementary role in the diagnosis of pathologies affecting the spine [7].

Imaging, primarily with MRI and CT, is used to evaluate the source of both LBP and neck pain. These imaging modalities commonly identify disc degeneration, disc herniations, and posterior element arthopathy; however, the imaging findings of spine degeneration are present in a high proportion of asymptomatic individuals and increase with age [8] [9]

---

see Lumbar spine magnetic resonance imaging.

1)
Airaksinen O, Brox JI, Cedraschi C, et al. European guidelines for the man- agement of chronic nonspecific low back pain. European Spine Journal 2006;15(Suppl. 2):S192–300 [chapter 4].
2)
National Collaborating Centre for primary care low back pain: early man- agement of persistent non-specific low back pain. Full guideline May 2009 http://www.nice.org.uk/cg88 [accessed 14.07.12].
3)
van der Wurff P, Buijs EJ, Groen GJ. A multitest regimen of pain provocation tests as an aid to reduce unnecessary minimally invasive sacroiliac joint procedures. Arch Phys Med Rehabil. 2006 Jan;87(1):10-4. PubMed PMID: 16401431.
4)
Ren XS, Selim AJ, Fincke G, et al. Assessment of functional status, low back disability, and use of diagnostic imaging in patients with low back pain and radiating leg pain. J Clin Epidemiol. 1999;52(11):1063–1071.
5)
Jarvik JG, Deyo RA. Diagnostic evaluation of low back pain with emphasis on imaging. Ann Internal Med. 2002;137(7):586–597.
6)
Jarvik JG, Hollingworth W, Martin B, et al. Rapid magnetic resonance imaging vs radiographs for patients with low back pain: a randomized controlled trial. JAMA. 2003;289(21):2810–2818.
7)
Shah LM, Ross JS. Imaging of Degenerative and Infectious Conditions of the Spine. Neurosurgery. 2016 Sep;79(3):315-35. doi: 10.1227/NEU.0000000000001323. PubMed PMID: 27352276.
8)
Brinjikji W, Luetmer PH, Comstock B, et al. Systematic literature review of imaging features of spinal degeneration in asymptomatic populations. AJNR Am J Neuroradiol. 2015;36(4):811–816.
9)
Boden SD, Davis DO, Dina TS, Patronas NJ, Wiesel SW. Abnormal magnetic-resonance scans of the lumbar spine in asymptomatic subjects: a prospective investigation. J Bone Joint Surg Am. 1990;72(3):403–408.