Lumbosacral junction

Due to a wide range of normal disk space heights at the lumbosacral (LS) junction, we conducted this study to evaluate how to diagnose degenerative disk disease (DDD) of the LS junction and how much information we can obtain from plain radiography regarding this condition. We retrospectively reviewed lateral LS spine films and magnetic resonance (MR) imaging in 100 patients presented with low back pain. Anterior disk height (ADH) and posterior disk height (PDH) were directly measured from plain radiographs. Signs of DDD were recorded from both plain radiographs and MR imaging. We found that ADH < 11.3 mm or PDH < 5.5 mm indicates DDD at LS junction with 95 percent confidence interval. When spondylolisthesis was presented, disks were all degenerated. Endplate sclerosis had a significant relative risk ($p < 0.05$) for lateral neural canal stenosis and disk herniation. No radiographic finding showed the significant relative risk for nerve root compression [1)].

1)
Jaovisidha S, Techatipakorn S, Apiyasawat P, Laohacharoensombat W, Poramathikul M, Siriwongpairat P. Degenerative disk disease at lumbosacral junction: plain film findings and related MRI abnormalities. J Med Assoc Thai. 2000 Aug;83(8):865-71. PubMed PMID: 10998839.