Prevalence of MRI findings in patients with low back pain referred to diagnostic imaging clinic of Alavi hospital from september 2020 to september 2021

Abstract

Background: Back pain is one of the main causes of disability and has been the most common cause of disability in the last decade. MRI imaging is able to identify soft tissues, including the intervertebral disc, nerves, and muscles, that are potential sources of back pain; It should be noted, however, that in some cases MRI is not able to identify the source of low back pain. It has been suggested that the symptoms of low back pain fluctuate over time and that low back pain is often accompanied by patterns of improvement and exacerbation. It is to be expected that if the physician has sufficient information about the relationship between the MRI findings and the patient's low back pain, he or she can better guide patients on the prevention of low back pain. It is very important to investigate the relationship between the patient's bedside and the imaging.

Aim: The aim of this study was to evaluate the findings of lumbar MRI in symptomatic patients referred to the imaging ward of Alavi Hospital between september 2020 and september 2021.

Materials & Methods: All symptomatic patients referred to the imaging ward of Alavi Hospital in Ardabil for lumbar MRI were enrolled from september 2020 and september 2021. These patients in terms of gender, age, type of insurance, disc dehydration, disc protrusion, disc extrusion, disc sequestration, disc dehydration, spondylolisthesis, retrolysis, presence of Taylor cyst, hemangioma, vertebral fracture, spinal abnormality, spinal abnormality Bone marrow SG, spinal canal stenosis, foraminal stenosis, modic changes and the presence of scoliosis were evaluated.

Results: 256 patients referred to the imaging ward of Alavi Hospital in Ardabil underwent MRI with low back pain. The mean age of patients was 45.10 with a standard deviation of 14.28 years. 152 patients (59.4%) were male. 240 patients (93.7%) had health insurance.55 patients (21.5%) had normal MRI. The most common MRI findings in the present study were: extrusion (67.6%), intervertebral disc dehydration (59.4%), protrusion (40.2%),spinal canal stenosis (29.7%) foraminal stenosis (24.2%), retrolysis (19.5%), lumbar scoliosis (14.7%), modic changes in the lumbar vertebrae (14.5%), scoliosis (13.7%), hemangioma (10.5%),

spondylolisthesis (9.4%), sequestration (3.1%), spinal abnormalities (2%) and bone marrow SG (1.6%).

Conclusion: Based on the results, the most common abnormal findings in MRI of patients with low back pain were: extrusion, protrusion and dehydration of the intervertebral disc. Also, most of these changes were in the lower levels of the lumbar vertebrae.

Keywords: Disc protrusion-MRI-Back pain