

Incidental MRI Findings Not Generally Linked To Development Of Chronic Low Back Pain, Radicular Symptoms.

[Medwire News](#) (6/3, Cowen) reports that [research](#) published in BMC Musculoskeletal Disorders suggests that “incidental magnetic resonance imaging (MRI) findings are not generally associated with the development of [chronic low back pain](#) or radicular symptoms.” Researchers wrote, “Although incident annular fissures, disc extrusions, and nerve root impingement were associated with incident symptom outcomes, the 3-year incidence of these MRI findings was extremely low, and did not explain the vast majority of incident symptom cases.”

MRI findings rarely associated with spine-related symptoms

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Incidental magnetic resonance imaging (MRI) findings are not generally associated with the development of [chronic low back pain](#) or radicular symptoms, US study findings indicate.

“Although incident annular fissures, disc extrusions, and nerve root impingement were associated with incident symptom outcomes, the 3-year incidence of these MRI findings was extremely low, and did not explain the vast majority of incident symptom cases,” say study author Pradeep Suri (VA Puget Sound [Health Care System](#), Seattle, Washington) and colleagues.

The researchers conducted a secondary analysis of data from the LAIDBACK study in which 123 participants without current [low back pain](#) or sciatica underwent standardised MRI assessments of the lumbar spine at baseline and 3 years later, and provided details of any spine-related symptoms every 4 months throughout the study.

Suri and team focused on two specific outcomes – incident chronic bothersome low [back pain](#) and incident radicular symptoms – rather than the composite outcome used in the original analysis.

As reported in *BMC Musculoskeletal Disorders*, 19.5% of [patients](#) developed incident chronic low back pain, defined as pain that was moderately, very or extremely bothersome (assessed on a scale of 1–6 with a higher score being more bothersome) on at least two occasions during follow-up, while 56.9% developed radicular symptoms, defined as any sciatica, lower extremity numbness or tingling or lower extremity weakness during follow-up.

By contrast, the 3-year cumulative incidence of new MRI findings ranged from just 1.6% (two new cases) for moderate/severe central canal stenosis to 8.9% (11 new cases) for disc desiccation.

On bivariate analysis, incident annular fissures conferred a nonsignificant 4.6-fold greater likelihood of incident chronic low back pain, but there were still three cases (50%) where affected participants

did not develop low back pain. In spite of this, the association strengthened to a significant 6.0-fold increased likelihood, after adjustment for depression and previous back pain.

All participants with incident disc extrusions and nerve root impingement reported incident radicular symptoms, and these MRI findings were associated with a nonsignificant 5.4- and 4.1-fold increased likelihood of radicular symptoms, respectively. Multivariate analyses did not appreciably change these associations.

“These results suggest that when a new MRI demonstrates a disk extrusion or nerve root impingement that was not previously seen, in a [patient](#) with new radicular symptoms, the new MRI finding is a probable cause of radicular symptoms”, Suri and co-authors remark.

However, they caution that the overwhelming majority of individuals with new [low back pain](#) or radicular symptoms will not have relevant new MRI findings.

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