

# FINDINGS IN BACK PAIN PATIENTS REFERRED FOR UPRIGHT MRI

M Jones, A Morris, A Pope, R Ayer, A Breen

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## Abstract

**Purpose and Background:** The spread of upright MRI scanning is a relatively new development in the UK. However, there is a lack of information about whether weight bearing scans confer any additional useful information for low back conditions.

**Methods and Results:** Forty-five patient referrals to the upright MRI Department at the AECC for weight bearing lumbar spine scans between November 1<sup>st</sup> 2014 and June 30<sup>th</sup> 2015, and the resulting radiologists' reports were reviewed. Age, gender, clinical history, summary of findings, type of weight bearing scanning performed (sitting, standing, flexion, extension) were abstracted. All patients were scanned in a 0.5T Paramed MRopen scanner and all also received supine lumbar spine sagittal and axial scans.

The patients comprised 18 females and 27 males, mean age 52 years, (SD 15.5). Thirty had leg pain, 6 of which was bilateral. In 15, a stenotic lesion was suspected. Other reasons for referral were; possible malignancy (1), effects of degenerative change (4), spondylolisthesis (2), fracture, (1), previous surgery (3), trauma (1), sacroiliitis (1) and instability (3).

In 12/45 cases, reportable findings were more prominent, and sometimes only identifiable, on weight bearing scans, while in a further 4, the reverse was true. All but one of these involved disruption of the spinal or root canals. Eight of them also involved positional alignment.

**Conclusion:** In this case series nearly a third of referred patients had reportable findings relating to the spinal or nerve root canals that were differentiated by upright MRI scans.

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