J Spinal Disord Tech. 2005 Apr;18(2):121–6. Natural history of patients with lumbar disc herniation observed by magnetic resonance imaging for minimum 7 years. Masui T, Yukawa Y, Nakamura S, Kajino G, Matsubara Y, Kato F, Ishiguro N. Source

Department of Orthopedic Surgery, Nagoya University School of Medicine, Nagoya, Japan. tm1998@qc4.so-net.ne.jp Abstract OBJECTIVE:

The aim of this work was to elucidate the relation between the clinical course and morphologic changes of lumbar disc herniation on magnetic resonance imaging (MRI).

METHODS:

Twenty-one patients with lumbar disc herniation treated nonsurgically were followed for a minimum of 7 years and investigated with regard to their clinical outcome and the initial, 2-year, and final stage MRI findings. The space-occupying ratio of herniation to the spinal canal and the degree of disc degeneration were evaluated on serial MRI.

The mean space-occupying ratio of herniation showed significant reduction both on the 2-year and on the final scans. Progression of degeneration of the intervertebral disc was seen in all patients at the final investigation. Comparing patients with and without symptoms, no factors were detected on the initial and 2-year MR images capable of distinguishing patients who were and were not destined to develop lumbago and/or sciatica in the future. Morphologic changes of lumbar disc herniation continued to occur even after 2 years. CONCLUSIONS:

Clinical outcome did not depend on the size of herniation or the grade of degeneration of the intervertebral disc in the minimum 7-year follow-up.

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