Spontaneous Regression of Disc Herniation

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A 67-year-old man suffering from chronic low back pain presented with a 2 day history of right leg weakness of sudden onset. Examination disclosed a right quadricepital deficit and an absent right knee reflex; the remainder of the examination was unremarkable. Magnetic resonance imaging (MRI) revealed a large and migrated L3–L4 disc herniation with a right L4 root compression (Figure 1). The patient declined surgical decompression and recovered completely with conservative management. Disease course was uneventful and the lower limb weakness resolved completely after a few weeks. Ten months later, a followup MRI disclosed a spontaneous and almost complete disappearance of the L3–L4 disc herniation (Figure 2).

MRI and computed tomography followup studies of nonsurgically treated lumbar herniated discs have revealed that large and migrated disc herniations tend to decrease in size spontaneously to a greater extent than small disc herniations[1,2]. Immunohistochemical studies have shown that macrophages and endothelial cells of the granulation tissue surrounding degenerated discs produce proinflammatory cytokines (interleukin 1 and tumor necrosis factor-α). In addition, these cytokines can stimulate the production of metalloproteinases by chondrocytes and inflammatory granulation tissue, resulting in disc degradation[3].

REFERENCES

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Figure 1. Sagittal T1 weighted sequence showing a massive L3–L4 disc herniation.

Figure 2. Sagittal T1 weighted sequence showing spontaneous resolution of L3–L4 disc herniation.