



## Resorption of sequestered lumbar disc herniation with conventional therapy

### Sekestre lomber disk hernisinin konvansiyonel tedavi ile rezorpsiyonu

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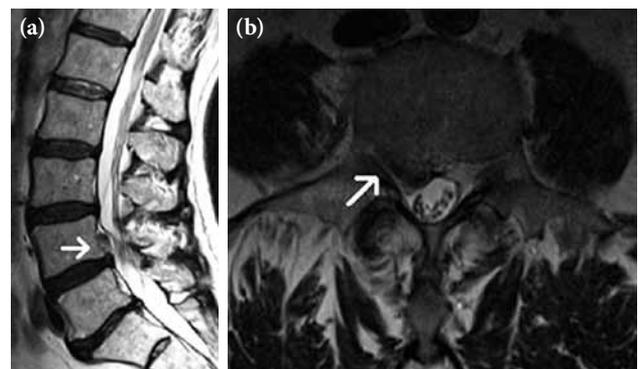
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We read with interest, the article titled “Resorption of extruded intervertebral disc herniation: Effect of physical therapy modalities” by Agirman et al.<sup>[1]</sup> published in The Turkish Journal of Physical Medicine and Rehabilitation, Volume 62, Issue 3. We would like to share our experiences on a similar case.

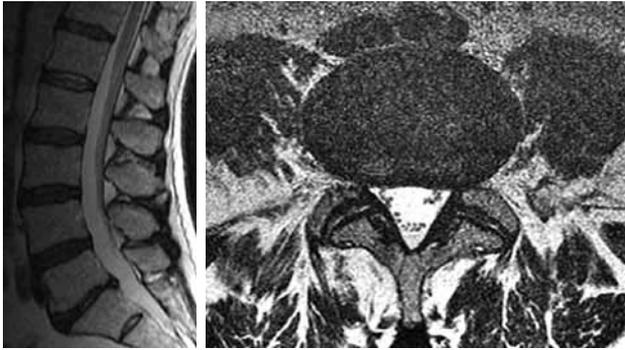
A 76-year-old man presented with a three-week history of lower back and right leg pain, loss of strength in his right leg, and urinary and fecal incontinence. He was first admitted to emergency service in March 2016. Magnetic resonance imaging (MRI) was performed which revealed L4-L5 disc sequestration with superior migration and an L4 root compression (Figure 1). Surgery was proposed; however, he refused surgery. Therefore, he was referred to our clinic in April 2016. His medical history showed that the pain increased with movement and decreased with rest. Upon his physical examination; the straight leg raise was positive at 50 degrees on the right side. The strength of the right hip flexor was 3/5, the knee flexor 4/5, the knee extensor 2/5, and the big toe dorsiflexor 4/5. He had L4 and L5 dermatomal paresthesia on the right side, and the reflexes in his right patella and Achilles tendon were unable to be elicited. A six-week period physical therapy and rehabilitation program consisting of hotpack (20 sessions), pulsed ultrasound (20 sessions), transcutaneous electrical nerve stimulation (14 sessions), diadynamic current (14 sessions), and therapeutic electrical stimulation (28 sessions) was applied. After the fourth week of the program, we also added walking training, as he could tolerate. Initially, his urinary and fecal incontinence

recovered. The pain gradually decreased. At the end of the therapy, the strength of the right hip flexor and knee extensor was 4/5, distally 5/5. In May 2016, repeated MRI showed resorption of the sequestered disc (Figure 2). As a result, his symptoms and MRI findings regressed within two months with physical therapy and exercise program.

Cases with spontaneous regression of lumbar disc herniation (LDH) have been previously reported in the literature. There are three hypotheses: (i) dehydration, (ii) retraction of the herniated disc into the intervertebral disc space, and (iii) disc herniation into the epidural space exciting an inflammation and neovascularization which brings about enzymatic degradation and phagocytosis.<sup>[2]</sup> Ultrastructural and



**Figure 1.** T<sub>2</sub>-weighted magnetic resonance imaging of the lumbar spine showing an L4-L5 disc sequestration with superior migration on the sagittal plane (a) and an L4 root compression on the axial plane (b).



**Figure 2.** T<sub>2</sub>-weighted magnetic resonance imaging of the lumbar spine showing the resorption of the sequestered disc.

immunohistochemical studies with surgical specimens support the latter hypothesis.<sup>[3,4]</sup> Among the subtypes of LDH, sequestrations regress in the shortest time frame on average in nine months.<sup>[5,6]</sup> In this case, the process might have been accelerated with physical therapy (from 9 months to 2 months). However, to the best of our knowledge, there is no comparative study using different approaches for regression of LDH in the literature. Hence, further studies are required to gain a better understanding about the benefits of physical therapy in this patient population.

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