



Case Report

Spontaneous Regression of Extruded Lumbar Disc Herniation

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Summary

While treatment of lumbar disc herniation is basically conservative, progressive neurologic deficits and cauda equina syndrome constitute an indication for definitive surgery. In this article, without the need for surgical intervention, the conservative treatment of a patient with extruded lumbar disc herniation that shows spontaneous regression is discussed in the light of the literature.

Key words: Lumbar disc, spontaneous regression, conservative

Ekstrude Lomber Disk Hernisinde Spontan Regresyon

Özet

Lomber disk hernisinde öncelikle tedavi konservatif olup ilerleyici nörolojik defisit ve kauda ekina sendromu kesin cerrahi endikasyonu oluşturmaktadır. Bu makalede cerrahi girişime gerek kalmadan konservatif tedavi ile spontan regresyon gösteren bir ekstrude lomber disk hernisi hastası literatür eşliğinde tartışılarak sunulmaktadır.

Anahtar Kelimeler: Lomber disk, spontan regresyon, konservatif

INTRODUCTION

The most common cause of low back pain is lumbar disc herniation. While treatment of lumbar disc herniation is basically conservative, progressive neurologic deficits and cauda equina syndrome constitute an indication for definitive surgery. The number of actual surgical candidates due to pain in the patient group is limited to 2%. Though a well known and frequently reported phenomenon, spontaneous regression's exact mechanism and the exact time it takes place are unknown.⁽³⁾ In the literature, in the studies and the case reports, regression has been reported to be observed at different times.^(5,19) The most important factor

affecting the outcome of the lumbar disc surgery is the selection of patients.⁽⁶⁾

CASE PRESENTATION

35 year old male patient applied to our clinic due to severe right leg pain which has continued for the last 2 months. The patient who was positive at 45 degrees on the right laseque did not have motor and sensory deficits in his neurological examination. Right L5-S1 extruded disc herniation was detected on MRI (Fig. 1a, b).

The patient, who refused surgery, was given analgesic and anti-inflammatory, thus the treatment continuing in a conservative manner. The patient, who had stated that his pain disappeared two months after the treatment, came to our

clinic with another complaint 7 months later. On MRI, it was observed that the extruded disc was completely regressed and the disc distance on T2 sequences was

hypointense. (Fig.2a,b). In the control neurology examination, laseque was negative and motor and sensory examination was normal.

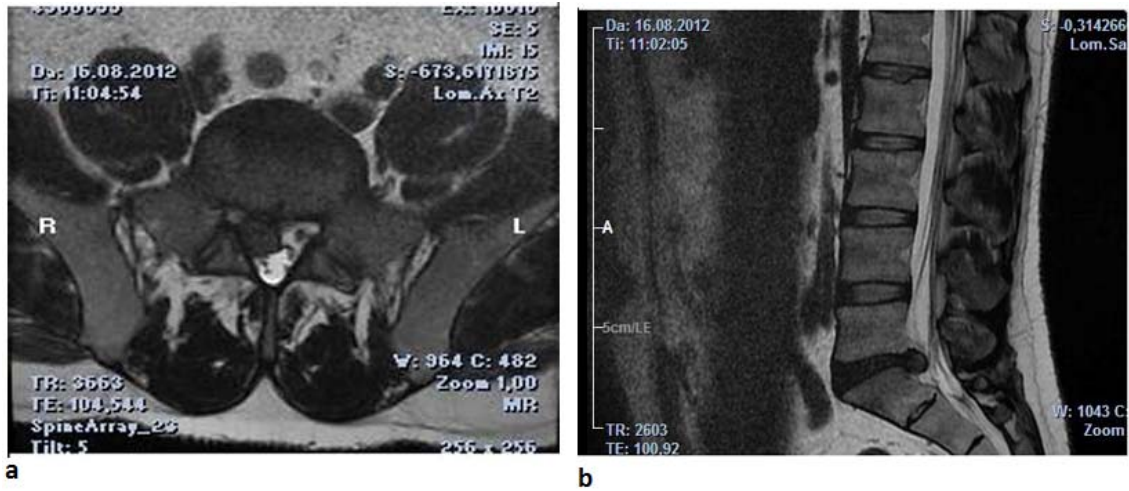


Figure 1a, b: Magnetic Resonance imaging study revealed extruded disc fragment at the L5-S1 level.

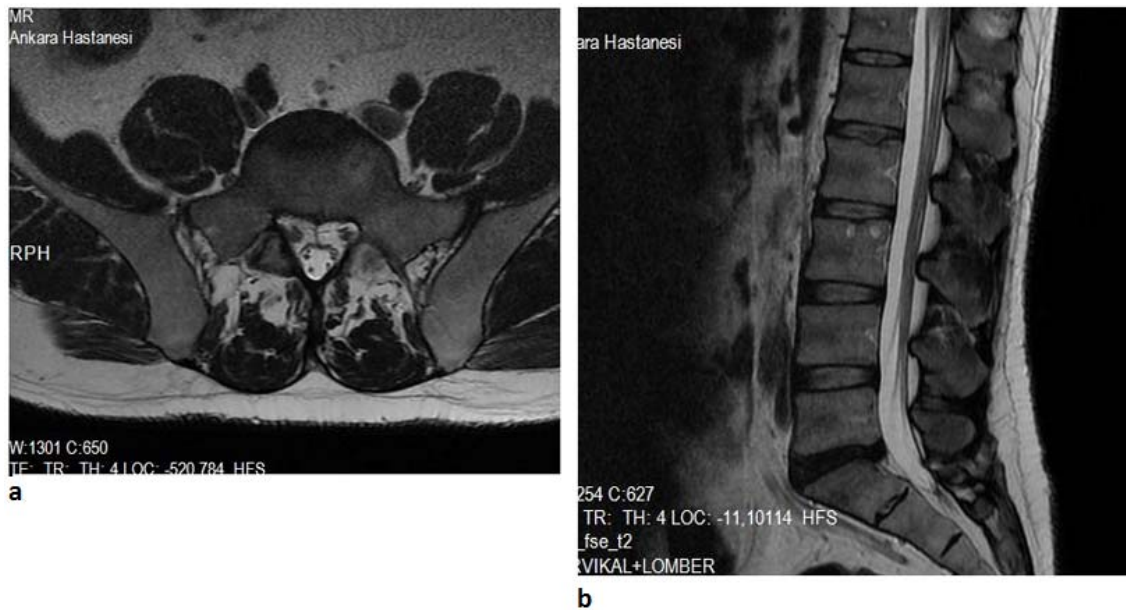


Figure 2a,b: The extruded disc fragment was found to have resolved on follow up imaging after 7 months.

DISCUSSION

Spontaneous regression of lumbar disc herniation was defined for the first time by Guinto et al.⁽⁷⁾ Two years later, Teplick and Hankin documented spontaneous regression by computerized tomography.⁽¹⁴⁾ There are studies in which regressions of large-sized extruded lumbar disc herniation have been identified with the introduction of routine radiological imaging.^(4,9,12,16) Bozzao and colleagues reported that 63% of patients with protruding disc in MRI had volumetric decrease.⁽⁴⁾ When spontaneous regression takes place is not known exactly. In the literature, there are studies showing that this period is between 2 weeks and 2 years.^(1,2,4,8,10,13,14,15,17,18)

In this case, the patient had clinical relaxation that has begun in the second month after the first MR but, considering the patient's coming to our clinic in the 7th month, clinic regression may have occurred beforehand. The mechanism of symptomatic disc herniations which have not been operated is still not fully clear even though they have undergone spontaneous regression.

Various hypotheses have been proposed on the subject. The first of these is dehydration mechanism. Herniated nucleus pulposus loses water over time and is eliminated through shrinking. The hypointensity of interspace supports this theory in the control MRI study of our case.

The second mechanism is resorption theory. Herniated nucleus pulposus is detected as a foreign body and the inflammatory process begins with neovascularization. Herniated nucleus pulposus is eliminated with enzymatic degradation and phagocytosis.

The third theory is the theory of the withdrawal. In herniations which have an ongoing relationship with disc distance, disc drive goes back and disappears.^(6,19)

As a result, patients with symptomatic lumbar disc herniation should not constitute an indication for surgery only through MRI. In the absence of cauda equina syndrome and motor and sensory deficits in the detailed neurological examination, being conservative in the treatment, patients should be monitored and improvement of complaints together with the correlation of regression of disc herniation in MR imaging should be closely observed.

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