Case Report / Приказ случая

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Spontaneous regression of cervical disc herniation in a patient with myelopathy
Спонтана регресија цервикалне дискс херније код болесника са мијелопатијом

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SUMMARY

Introduction The aim of this work was to present rarely spontaneous regression of herniated cervical disc in patient with myelopathy.

Case outline A 31 year-old women presented with 2 weeks history of neck pain associated with numbness in her body and all four extremities. The MRI of the cervical spine showed a large posterior medial disc extrusion at the C5-C6 causing myelopathy. The patient refused discectomy that was recommended. She received symptomatic treatment in the form of analgesics, muscle relaxant, and hard cervical collar. Follow-up MRI of the cervical spine, that was done after 11 months, revealed almost complete regression of the disc herniation. The patients symptoms had subsided completely after one year.

Conclusion In some cases of cervical disc herniation with myelopathy, , especially in patients with mild neurological deficit, symptomatic therapy should be considered.

Keywords: cervical disc; herniation; regression; myelopathy

INTRODUCTION

Spontaneous regression of disc herniation without any surgical treatment has been reported to occur in the cervical region. Most such cases are confined to disc herniation that are associated with radiculopathy [1-8]. We present a very rare case of spontaneous regression of cervical disc herniation in patient with myelopathy, that was demonstrated by MRI.

CASE REPORT

A 31 year-old women, with an unremarkable past medical history, presented with 2 weeks history of neck pain associated with numbness in her body and all four extremities. Neurological examination showed C7 hypoesthesia level, without motor deficit. The MRI of the cervical spine showed a large posterior medial disc herniation (extrusion) at the C5/6 level with increased signal intensities of compressed spinal cord. The other intervertebral disc spaces were normal (Figure 1). We recommended that she undergo an anterior discectomy. The patient refused surgical treatment. She received symptomatic treatment in the form of analgesics, muscle relaxant, and hard cervical collar. The patient reported significant improvement in her symptoms after 2 months. Follow-up MRI of the cervical spine, that was done after 11 months, revealed almost complete regression of the disc herniation and resolution of increased cord signal at the level C5/6 (Figure 2). The patients symptoms had subsided completely after one year.
DISCUSSION

Son et al. [9] first reported a case of spontaneous regression of herniated disc in patient with myelopathy. They reported a case of 37-year old women who developed sudden C-7 sensory level quadripareisis (motor Grade 4+) caused by C5/6 disc herniation and subsequent myelopathy, that was seen on MRI of cervical spine. The patient refused cervical discectomy, that was recommended. Follow-up MRI, that was done after 28 months, showed complete regression of the disc herniation and abnormal cord signal. The patients symptoms had subsided almost totally.

We surveyed the literature and identified only one more reported case on this subject. Stavrinou et al. [10] reported 46-year old women with three weeks history of neck pain and right brachialagia, associated with hand numbness and mild grasping weakness. MRI of the cervical spine showed C5/6 disc herniation causing myelopathy. The patient was offered surgery, which she denied. Within 7 weeks, the patient had significant clinical improvement. A subsequent MRI showed almost complete regression of the disc herniation and myelopathy.

To our knowledge, the patient from our report is the third MRI documented case of spontaneous regression of cervical disc herniation in a patient with myelopathy.

The exact mechanism of spontaneous regression of herniated disc is still unclear. Regression of herniated disc detected on MRI might represent in part dehydration of the herniated nucleus pulposus. Histological studies have shown evidence for inflammatory reaction in the herniated disc material, subsequent angiogenesis, and macrophage infiltration that are playing an essential role in phagocytosis and regression of the herniated disc [11,12].

Some authors have suggested that some characteristics of herniated disc determine its likelihood to regress spontaneously. Spontaneous regression of sequestration was seen more frequently when compared to protruding herniation. Also, large sized disc herniation has been reported to regress more than smaller one [8].

As a rule, surgical therapy of cervical disc herniation associated with myelopathy is strongly recommended. Morbidity and mortality are low in this surgical procedure, with good outcome.
would be inappropriate, to give some general treatment guidelines from the results in single patient from this report and previously reported two patients. However, the knowledge of possibility of spontaneous regression of herniated disc is important in considering treatment options, especially in patients with mild neurological deficit. In some cases of cervical disc herniation with myelopathy, nonsurgical symptomatic therapy should be considered as an option for treatment.

REFERENCES