Posttraumatic thoracic anterior epidural hematoma together with Posttraumatic T11-12 Disc Herniation: A case report

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Abstract

This article presents a 66 year old female admitted to emergency department with increasing back pain, and serious monoparesis on left lower extremity and urinary and fecal incontinence increasing day by day after fall from the tree one week ago. T11 hemangioma, anterosuperior partial corpus fracture of T12, T11-12 disc herniation and anterior epidural hematoma in the anterior epidural space were diagnosed by Magnetic Resonance Imaging (MRI). The patient was operated immediately with using neuromonitorisation. After surgery and three weeks rehabilitation programme the patient discharged with full recovery.

Spinal epidural hematomas (SEHs) are rare clinical disorders that might result in permanent neurological deficits and even death when left untreated. Posttraumatic, thoracic and especially anterior located epidural hematomas are more rare in whole spinal epidural hematomas. Evacuation of the spinal epidural hematoma by the early surgical decompression may recover some neurological deficits and particularly vital cord functions. Especially if a patient has some progressive neurological deficits increasing day by day after trauma, SEH must be considered.

Introduction

Spontaneous SEH (SSEH) is a rare cause of back pain in the emergency department (estimated incidence of approximately 0.1 per 100,000 patients per year) [1]. The classic clinical presentation is acute onset of severe, often radiating, back pain followed by signs and symptoms of nerve root and/or spinal cord compression, which develops minutes to days later [2-4]. SSEH occurs in all age groups, but most frequently after fourth decade of life [5]. The most common localizations in adults are the cervicothoracic and thoracolumbar junctions [6]. Posttraumatic SEH with abnormal neurologic findings is very uncommon [7].

Case report

A 66-year-old female admitted to emergency department with increasing back pain, and serious monoparesis on left lower extremity and urinary and fecal incontinence (Frankel D2) increasing day by day after fall from the tree one week ago. T11 hemangioma, anterosuperior partial corpus fracture of T12, T11-12 disc herniation most probably due to trauma and thoracic spinal epidural hematoma in the anterior epidural space lies between T10 and L1 vertebrae were diagnosed by MRI. Thickness of epidural hematoma was calculated 6 mm at T11 level (Figures 1 and 2).

The patient was operated immediately with these clinical and radiological findings and evacuation of thoracic anterior SEH and T11-12 microdiscectomy were performed by the left costotransversectomy and transpedicular approach and partial corpectomy on the left lateral side of T11 and T12 vertebrae. Although there was no active bleeding from T11 hemangioma, peroperatoire vertebroplasty also was performed to prevent probably late hemorrhages and postoperative pain. Neuromonitorisation was also used in the operation to prevent the secondary injuries may be depend on the surgery. The rehabilitation programme has been started in the postoperative fifth day for the patient and neurological findings recovered to (Frankel 3) in the early postoperative period. After three weeks rehabilitation programme the patient discharged with full recovery.

Abstract

This article presents a 66 year old female admitted to emergency department with increasing back pain, and serious monoparesis on left lower extremity and urinary and fecal incontinence increasing day by day after fall from the tree one week ago. T11 hemangioma, anterosuperior partial corpus fracture of T12, T11-12 disc herniation and thoracic spinal epidural hematoma in the anterior epidural space were diagnosed by Magnetic Resonance Imaging (MRI). The patient was operated immediately with using neuromonitorisation. After surgery and three weeks rehabilitation programme the patient discharged with full recovery.

Spinal epidural hematomas (SEHs) are rare clinical disorders that might result in permanent neurological deficits and even death when left untreated. Posttraumatic, thoracic and especially anterior located epidural hematomas are more rare in whole spinal epidural hematomas. Evacuation of the spinal epidural hematoma by the early surgical decompression may recover some neurological deficits and particularly vital cord functions. Especially if a patient has some progressive neurological deficits increasing day by day after trauma, SEH must be considered.

Figure 1. T1 weighted MRI shows the anterior located spinal epidural hematoma spreads along T10-L1 four vertebrae levels, hemangioma in corpus of T11, anterosuperior partial corpus fracture of T12 and T11-12 disc herniation most probably due to trauma.

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SEHs are very rare. Patients with suspected SEH with neurologic dysfunction must be evaluated with MRI. Evacuation of the spinal epidural hematoma by the early surgical decompression may recovery some neurologic deficits and particularly vital cord functions. Particularly if a patient has some progressive neurologic deficits increase day by day after trauma SEH must be considered. The results of decompressive surgery are fine and neuromonitorisation during the surgery has an effective protective value both of the patient and surgeon.

**Footnote:** Because of the hospital which was performed this surgery is a private hospital, its' brand name was not used in this article but, although authors resigned from this hospital and continue to work in different cities and in different hospitals, ethically the name of the city Orda, where was performed the surgery was used.

**Conflicts of interest disclosure**

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**References**


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