

## A rare cause of Hemiplegia

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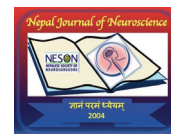
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### Abstract

Stroke is the most likely diagnosis considered, when an elderly patient comes to ER with acute onset hemiplegic weakness. Here we report a case of 82-year-old male with left hemiplegia who was initially treated as probable ischemic stroke after initial evaluation with CT brain which turned out to be spontaneous spinal epidural hematoma after detailed clinical evaluation and MRI cervical spine. Which was later evacuated resulting in improvement of symptoms. Spontaneous spinal epidural haematoma (SSEH) is a rare entity, its presentation as hemiplegia is very rare and such presentation has not been reported previously as per our knowledge. Keeping SSEH as a possibility in MRI brain negative patient presenting with hemiplegia can be beneficial to the patient as antithrombotic therapy may further worsen SSEH and an early surgical intervention will provide a good outcome.

### Introduction

Stroke is the most likely diagnosis when an elderly patient comes to ER with acute onset hemiplegic weakness. In this report we are presenting a case of acute hemiplegia which ultimately had a different diagnosis rather than stroke.

### Case report

82-year-old male, known diabetic and hypertensive presented with history of weakness of left upper limb and lower limb for one day. He noticed weakness in his left lower limb while getting up from his bed in early morning. He also had difficulty in gripping with his left upper limb, following which he went to a nearby hospital,

where they did a CT brain imaging which turned out to be normal and he was started on antiplatelet. By evening, his weakness worsened and he was referred to a neurologist. On reaching our centre, his BP was 150/90mm of Hg, he was conscious, oriented with left upper limb grade 2 and lower limb was grade 0 power. DTRS were sluggish on left side when compared to right. Sensory examination was normal. His sugars were high with GRBS being 320 mg/dl. He was then admitted with a clinical diagnosis of stroke and MRI brain plus MRA was done which came normal. MRI did not show any acute infarct or bleed.

In view of a negative MRI a detailed history was taken in which he revealed that at night while sleeping he had developed neck and back pain which was of moderate intensity and lasted for 5-10 min, following which he started noticing mild weakness on his left side. Possibility of neuraxial involvement at cervical level was considered considering the left hemiparesis with no cortical signs or cranial nerve involvement. MRI cervical spine was done on emergency basis which showed extramedullary extra Dural mass lesion which was T2 hypointense, T1 iso to hyperintense, extending from C4-C7 spinal level compressing the spinal cord. Considering the history of acute onset back pain followed by weakness and worsening after starting antiplatelet drugs, possibility of spontaneous epidural haemorrhage was considered. His BT, CT, PT, APTT and platelets were normal and he was taken for emergency surgical decompression. Laminectomy and decompression with removal of hematoma was done. Postoperatively patient started improving and by day 4 patient power improved with upper limb grade 4 and lower limb grade 3. He was discharged with advice to get spinal DSA on review.

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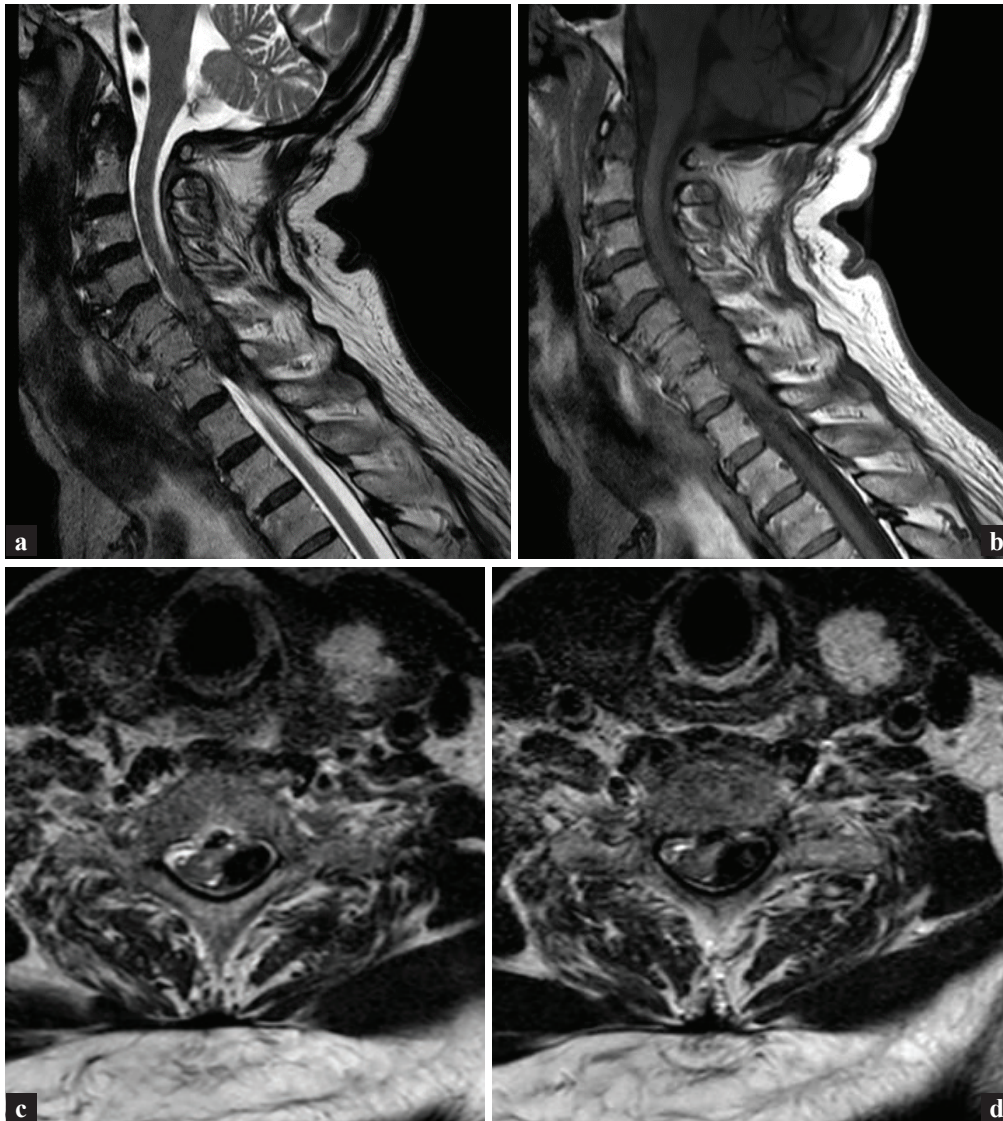


Figure 1: Pre operative MRI- showing (a and b) sagittal T1 iso to hyperintense, T2 hypointense extradural lesion compressing spinal cord at C5-C7 level ,(c and d) axial T2 image showing extradural mass compressing cord from left side

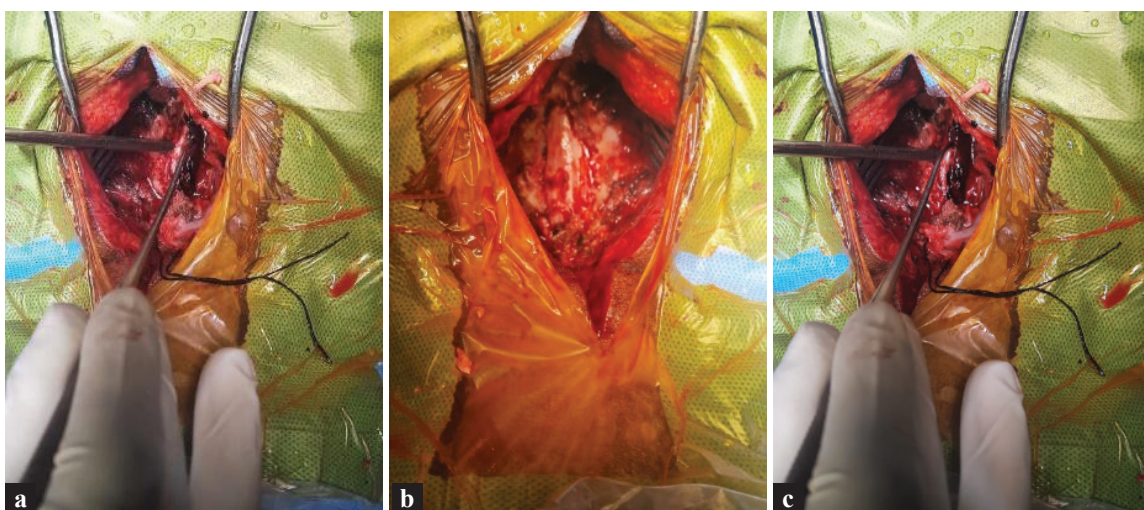


Figure 2: Intra operative image showing hematoma compressing spinal cord(a and b) and post-surgical evacuation showing mildly oedematous cord(c)

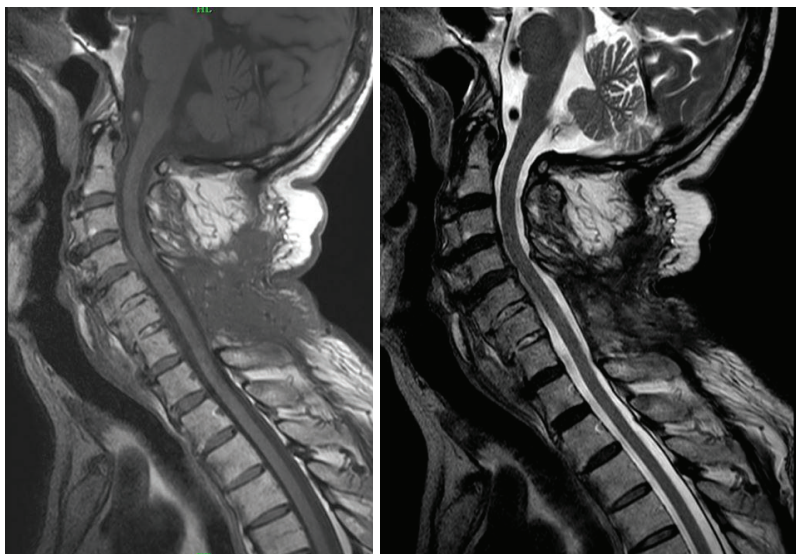


Figure 2: Post operative MRI (a and b) showing complete decompression of the cord

## Discussion

Spontaneous spinal epidural haematoma (SSEH) is very rare clinical neurological condition. This most commonly occurs in 4-5<sup>th</sup> decade<sup>1</sup>. Precipitating factors includes anticoagulant therapy, therapeutic thrombolysis, haemophilia B, factor XI deficiency, antiplatelet, and vascular malformation<sup>2,3</sup>. Idiopathic cases account for approximate 40% of all cases<sup>4</sup>. Spontaneous epidural hematoma occurs most commonly at the cervicothoracic region or thoracolumbar region<sup>5</sup>. Most cases it arises from the epidural venous plexus. Classical clinical presentation of SSEH is sudden neck or back pain followed by paraparesis or quadriparesis<sup>5</sup>. SSEH presenting as hemiplegia like in above case report of ours is not been reported. With such presentation, it may be mistaken as ischemic stroke especially in patients with background risk factors for ischemic stroke. But there were some clinical clues in our case, he had left sided weakness with no cranial nerve involvement or classical cortical signs and hence the lesion can be localised to anywhere in neuraxis above cervical spinal cord. Also, patient had history of mild to moderate upper back pain prior to onset of weakness when detailed history was taken.

This case explains the importance of detailed history and need of screening of cervical spine in cases of MRI negative stroke without cranial nerve involvement as early diagnosis and prompt management will provide a good outcome. Early surgical intervention is the treatment, and ideally it should be performed within 36 hours and in those with incomplete neurological deficit, it should be

operated with in 48hours<sup>6,7</sup>. SSEH is a rare condition but if detected early and surgical treatment is given promptly, outcome is good.

## Conclusion

SSEH is a very rare entity and its presentation as hemiplegia is very rare. SSEH presenting as hemiplegia will confuse the physician as hemiplegic presentation has not been reported previously. However, keeping SSEH as a possibility in patients presenting with hemiplegia which is MRI negative, can be beneficial for the patient as prompt surgical management can give a good outcome.

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