Cauda equina syndrome caused by a spontaneous spinal haematoma

Dhaara Bhatt,¹ Dveej Bhatt,² Nirav Bhatt³

¹Department of Radiology, Whittington Hospital, London, UK

²Emergency Department, Warwick, Coventry, UK

³Department of Cardiology, Lister Hospital, Hertfordshire, UK

Correspondence to

Dr Dhaara Bhatt,
dhaarahbhatt@hotmail.com

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DESCRIPTION

A 59-year-old woman with no medical history developed sudden onset sharp lower back pain shortly after lifting a heavy suitcase. The pain progressively worsened over 2 days. She self-presented to accident and emergency (A&E) and was discharged with analgesia for back spasm, which offered some relief. The following day, she was brought to A&E by ambulance with unremitting back pain and bilateral leg numbness. During this presentation, she collapsed in the bathroom and had an episode of urinary incontinence. Urinalysis showed trace leucocytes and she was discharged with a diagnosis of urinary tract infection.

Unable to walk, she was taken to another A&E on the same day. Examination revealed globally reduced power (3/5), absent reflexes and altered sensation in the lower limbs, saddle anaesthesia, diminished anal tone and urinary retention.

MRI of the lumbar spine demonstrated evidence of anterior compression from T11 to L4, suggested to be a complex cystic mass, with a tubular structure, and displacing and compressing the cauda equina (figures 1–4). An MRI of the whole spine/head did not reveal any further masses.

On transfer to a neurosurgical centre, evacuation of the mass was attempted and an L1/2 complete laminectomy was performed, approximately 24 h from the time of the third presentation. An intradural haematoma was identified and confirmed histopathologically. Further tests including spinal angiography failed to identify a cause for the bleed. The patient was not receiving any anticoagulant/antiplatelet therapy and the significance of the 'suitcase' incident remained unclear. The bleed was deemed to have been spontaneous.

Figure 2 Sagittal short τ inversion recovery MRI showing a complex, multiloculated intradural collection (haematoma) extending from T12 to L3.

Spontaneous spinal haematomas are rarely encountered; vascular malformations, clotting disorders, tumours and abscesses are commoner causes of such non-traumatic bleeds. Often, the aetiology is unknown.¹ Irrespectively, the primary symptom of spinal haematomas is invariably sudden onset, severe pain, which may precede the neurological deficit.¹ This case stresses the importance of thorough history taking and a complete neurological examination to allow a rare condition such as cauda equina syndrome to be diagnosed with a view to determining its aetiology. The patient's neurological status at 18 months remains poor with persistent paraparesis and double incontinence.

Figure 1 Sagittal T1-weighted MRI showing compression of the spinal cord from L1 to L3.

Figure 3 Sagittal T2-weighted MRI showing a complex mass of high signal intensity extending from T12 to L3.

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Figure 4 Axial T2-weighted MRI at L1 level showing an intradural lesion compressing the cauda equina.

Contributors The images were obtained by DB.

Competing interests None declared.

Learning points

- ▶ Spontaneous intradural haematomas should always be included in the differential in patients presenting with acute signs of cauda equina syndrome or cord compression.
- ▶ In spinal haematomas, the initial onset of pain may precede the development of neurological deficits by a few hours or days.¹ Careful history taking and an examination are thus crucial.
- ▶ MRI remains the investigation of choice for assessing complex structures such as blood products within the compartments of the spinal canal.²

Patient consent Obtained.

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