A case of spontaneous cervical extradural haematoma

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INTRODUCTION

Spontaneous cervical extradural haematoma (SCEH) is a rare cause of spinal cord compression. It has an incidence of 0.1/100 000 patients per year (Holtas et al, 1996).

SCEH usually presents with a sudden onset of nuchal and radicular pain, followed by sensory and motor dysfunction of which the commonest are paraparesis and tetraparesis (Horcajadas et al, 1998). Transient hemiparesis and hemisensory-motor syndrome are very rare presentations (Castro et al, 1998). A case of SCEH with spontaneous recovery is presented.

CASE REPORT

This 75-year-old woman was woken by sudden-onset left-sided neck and shoulder pain. As she walked a few steps, her legs gave way and she collapsed. Her feet felt 'dead', with the right side feeling worse, and she felt pins and needles over both upper limbs. She had no headache, loss of consciousness, chest pain or palpitations. She had a past history of large joint osteoarthritis, cervical radiculopathy and essential hypertension. Two months previously, she had fallen to the ground while standing on a chair and had, in the process, hit the back of her head. She had suffered no immediate ill effects from this. She was on doxazosin, lisinopril and diclofenac. She lived alone and was normally fully mobile and independent.

On examination, she looked well, was fully orientated and had moderate weakness in the right arm. The tone in both arms was normal. There were diminished reflexes in the right arm and normal reflexes in the left arm. She had severe weakness in the right leg and mild weakness in the left leg. Tone and reflexes were increased in the right leg. Plantar responses were downgoing bilaterally. She had good anal tone but a residual urine of 800 ml. She had no local cervical tenderness and moderately good cervical movements in all directions. She was afebrile and had no lymphadenopathy.

Routine blood tests, including a platelet count and clotting studies, were normal, as was her chest X-ray. A computed tomography scan of her head was normal. Plain radiography of her cervical spine showed changes compatible with diffuse idiopathic skeletal hyperostosis, but the disc spaces were all preserved.

The limb weakness started improving within 12 hours of admission. Rheumatological advice was sought, and because of the reduced reflexes in the patient's right arm, implying cervical cord pathology at the C5 to C7 level, she was referred to the regional neurosurgical service. On the fourth day after presentation, a magnetic resonance imaging scan of her cervical spine showed an extradural haematoma extending posterolaterally from C5 to C6 (*Figures 1* and *2*). Since her neurological signs were still improving, she was managed conservatively and spinal angiography was deferred. She progressed well with physiotherapy and a cervical collar and was discharged home 5 weeks from admission, walking with the aid of one stick but otherwise completely independent. She has remained well since.

DISCUSSION

The causes of SCEH are either idiopathic (commonest) or other causes. These include:

1. Thrombocytopenia
2. Disorders of coagulation or anticoagulant therapy
3. Arteriovenous malformations
4. Minor trauma
5. Postoperative complication in spinal surgery
6. Non-Hodgkin's lymphoma
7. Chronic use of non-steroidal anti-inflammatory drugs
8. Systemic lupus erythematosus.

Cervical spondylosis is probably the commonest cause of neck pain in an older person, and when long tract damage is also present, cervical myelopathy is a possibility. Other differential diagnoses are trauma, various space-occupying lesions and arterial occlusions. Among the rare causes is SCEH.

Early diagnosis and treatment may be essential for the functional recovery of the patient. Magnetic resonance imaging (MRI) in the acute stage shows heterogenous hyperintensity with focal hypointensity on T2-weighted images (Fukui et al, 1999). In the subacute and chronic stages of SCEH, a subacute haematoma appears as an area of high intensity on T1-weighted images and low intensity on T2-weighted images. MRI is also useful to provide information about the size, location, extent and the age of a haematoma (Shioya et al, 1998).

Since the introduction of MRI, the percentage of diagnosed SCEH cases that are not treated surgically has risen from 1.5% to 29%. This has become possible because conservative management of a neurologically stable or improving clinical picture can be easily monitored by MRI (Paphill and Lownie, 1998). However, early decompressive laminectomy and evacuation of the haematoma is required when there is a progressive neurological deficit.

CONCLUSIONS

This case should dispel the myth that neck pain in an older person is always caused by cervical spondylosis. Careful, repeated neurological exami-

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nation will direct the clinician towards further investigations, such as computed tomographic myelography or MRI if necessary.

Conservative management of SCEH is possible in a closely monitored specialist unit where early access to surgery is available. HM

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Figure 1. Axial magnetic resonance image showing a 5 mm thick extradural haematoma displacing the thecal sac with mild distortion of the cervical cord.

Figure 2. Saggital magnetic resonance image showing the extradural haematoma extending posterolaterally from C5 to C6.