Spontaneous Epidural Haematoma in Pregnancy

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Background

Spontaneous epidural haematomas (SSEH) are a rare pathology, with few cases reported in pregnancy. Back pain is frequently the first symptom, with rapidly progressing neurological changes where spinal cord compression is present. The limited access to specialist care and imaging in rural areas is a barrier to timely diagnosis and treatment.

Case Study

A woman in her mid-twenties presented to a rural health service at 38 weeks' gestation with thoracic back pain and lower limb weakness. MRI demonstrated thoracic spinal cord compression secondary to a cystic mass in the epidural space.

The patient was flown to a tertiary referral unit for urgent caesarean section, followed by T1-T8 laminectomy and resection of the lesion. The baby was born in good condition, and recovery from caesarean section was uncomplicated. Histopathology confirmed vascular malformation of the haematoma cyst wall, suggesting an underlying arteriovenous malformation. The patient remained admitted to a specialist spinal rehabilitation unit with minimal improvement in lower limb power at 4-weeks post-laminectomy.

Discussion

SSEH formation resulting in spinal cord compression is a rare cause of back pain. While pregnancy is reported as a risk factor throughout the literature, very few cases are documented to have occurred during pregnancy. Conversely, musculoskeletal back pain in pregnancy is very common, with an incidence as high at 80% in the third trimester. Thus, identifying the rare cases of epidural hematomas can be diagnostically challenging and a high index of suspicion is required for prompt diagnosis.

The diagnosis is made with cross-sectional imaging, with MRI being preferable (see figure 1&2). The gold standard of treatment for patients with signs of neurological compromise is urgent surgical decompression of the spinal cord by laminectomy. Management of the pregnant patient presents the additional challenge of minimising risk to the developing foetus intraoperatively, while balancing the implications of pre-term birth if delivery is required to take place prior to laminectomy. Therefore, optimal management of the pregnant patient presenting with spinal cord compression requires discussion and collaboration amongst the multidisciplinary care team to determine the most appropriate approach to treatment depending on the gestation of the pregnancy. Time to treatment is a key prognostic factor in spontaneous epidural haematoma formation and a major challenge when a patient lives over 500 km from a neurosurgical service.[1] Despite transfer to two hospitals, this patient had a laminectomy performed approximately 24 hours after her initial presentation.

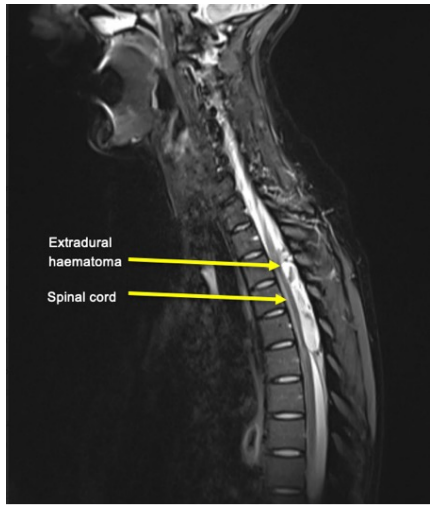

Figure 1. T1 transverse MRI demonstrating extradural haematoma posteriorly, with anterior displacement and compression of the spinal cord.

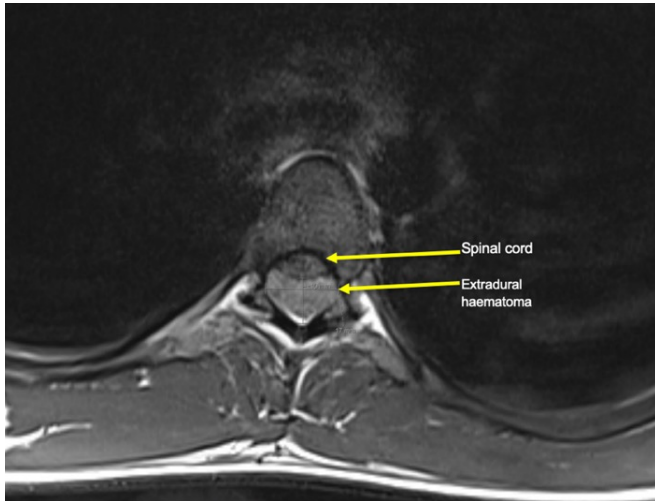

Figure 2. T2 sagittal MRI demonstrating extradural haematoma, probably partially liquified, compressing and displacing the spinal cord anteriorly.

Conclusion

Spontaneous epidural haematoma's are a rare pathology, often presenting with back pain - common complaint in pregnancy.

The case presented highlights the presentation, diagnosis and management of a spontaneous epidural haematoma in a term pregnancy, while exploring the challenges associated with prompt management in a rural setting.

References available on request. *Contact: gabrielle.sach@gmail.com.*