Journal of Orthopaedics, Trauma and Rehabilitation 23 (2017) 18–21

Contents lists available at ScienceDirect

Journal of Orthopaedics, Trauma and Rehabilitation

Journal homepages: www.e-jotr.com & www.ejotr.org

Case Report

Spontaneous Spinal Epidural Haematoma in a 34-week Pregnant Woman: A Case Report and Literature Review
一個34週孕婦出現自發性脊髓硬膜外血腫：病例分析及文獻回顧

Lau Ka-Chi*, Hui Ching-Lik †, Lau Sun-Wing †, Luk Man-Sze Karen †, Wong Nang Man Raymond †

Department of Orthopaedics & Traumatology, United Christian Hospital, 130 Hip Wo Street, Kwun Tong, Kowloon, Hong Kong

ARTICLE INFO

Article history:
Received 25 August 2016
Accepted 7 October 2016

Keywords:
spontaneous spinal epidural haematoma
back pain
pregnancy

ABSTRACT

Acute spontaneous spinal epidural haematoma is uncommon; however, it can result in permanent neurological damage if not promptly treated. It occurs very rarely during pregnancy. We report a case of acute spontaneous spinal epidural hematoma in a 34-year-old primigravida woman at 34 weeks' gestation who presented with sudden back pain and paraplegia. Emergency spinal decompression surgery was done with the continuation of pregnancy. We discuss the presentation and management of the rare condition with a review of the literature.

中 文 摘 要

急性自發性脊髓硬膜外血腫是一種罕見疾病，但如果不及時治療，可導致永久性神經損害。此疾病發生在懷孕期間的病例更為罕見。我們報告一名34歲孕婦於34孕週出現突然背部疼痛和下肢癱瘓，經診斷患有急性自發性脊髓硬膜外血腫，並在妊娠期間接受緊急椎管減壓術。我們回顧了相關文獻並討論這罕見病況的表現和治療。

Introduction

Acute spontaneous spinal epidural haematoma (SSEH) is a rare condition. It presents with sudden back pain with or without rapidly deteriorating neurological deficits due to cord compression. The incidence of SSEH in general population is 0.1/100,000/y.[1] Despite its rare occurrence, it has been reported to occur during pregnancy. We report a case of acute SSEH in a 34-week primigravida woman with early diagnosis, emergency intervention, and good recovery.

Case Report

A 34-year-old pregnant woman at 34 weeks' gestation presented in May 2016 to our hospital with acute severe back pain that woke her from sleep 4 hours before admission. She denied preceding trauma, intake of anticoagulant or over-the-counter drugs, medical history of bleeding tendency, or family history of coagulation disorders. She developed paraplegia with loss of sensation from the level of nipple line downwards 3 hours after the onset of back pain.

Examination on admission showed tenderness over the upper thoracic spine and hypotonic lower limbs with power grade 0/5. Upper limbs examination was normal. There was a complete loss of all sensation modality from T4 dermatome downwards. Per rectal examination showed preserved anal tone but absence of voluntary sphincter contraction and loss of perianal sensation. Laboratory investigations showed that platelet count, prothrombin time, and activated partial thromboplastin time were all within normal limits. Urgent magnetic resonance imaging (MRI) revealed a T1-isointense, T2-hyperintense, oval-shaped intraspinal extradural mass lesion with slightly heterogeneous signals, measuring 3.3 cm in length (cranial-caudal dimension) at the level of T2/T3 thoracic spine, associated with compression of the spinal cord and cord oedema (Figure 1).

* Corresponding author. *E-mail:* kclaukachi@gmail.com.
† Hui Ching-Lik, Lau Sun-Wing, Luk Man-Sze Karen, and Wong Nang Man Raymond contributed equally to this work.

http://dx.doi.org/10.1016/j.jotr.2016.10.001

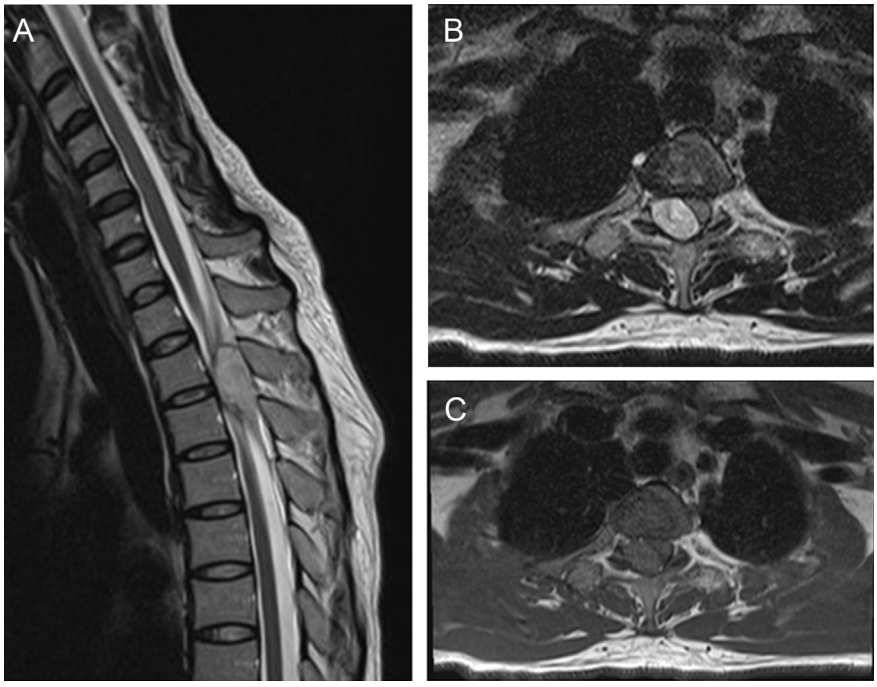

Figure 1. Magnetic resonance imaging images of the upper thoracic spine. (A) Sagittal view T2-weighed; (B) transverse view on T2/3, T2-weighed; (C) transverse view T2/3, T1-weighed.

An urgent obstetric consultation was obtained. Stable foetal condition and absence of obstetric indication for early delivery was confirmed. With the administration of steroid to enhance foetal lung maturity (in case of preterm delivery), emergency spinal surgery was proceeded. The surgery was performed 11 hours after the onset of symptoms. The patient was put in prone position on an Orthopaedic Systems Incorporated (OSI) Jackson spinal table after general anaesthesia, with hips and knees flexed at 90 degrees and the abdomen hanging freely without pressure (Figure 2). Posterior decompression with T2 and T3 bilateral laminectomy and removal of the epidural haematoma was performed. Upon removal of the clot, the cord was decompressed and the pulsation was noted (Figure 3). The tissue was taken for bacterial, fungal, and acid-fast bacilli cultures; all the results were negative. Histological analysis of the specimens showed blood clots only.

Postoperative rehabilitation was satisfactory. The patient regained motor power grade 4/5 on both lower limbs on the 1st postoperative day. By the 7th day, she gained almost full power of bilateral lower limbs and was able to ambulate independently with a walking frame. The foetal condition remained stable

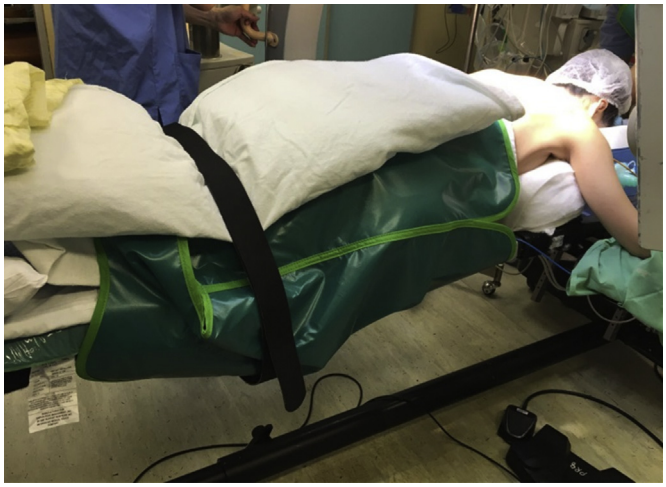

Figure 2. Intraoperative positioning of the patient. Prone on an OSI Jackson spinal table, with hips and knees supported. Special attention paid to ensure accurate pelvic support so that the abdomen could be hanging freely without pressure. Lead apron was used to minimise the radiation exposure to the foetus when spinal level was confirmed with radiograph.

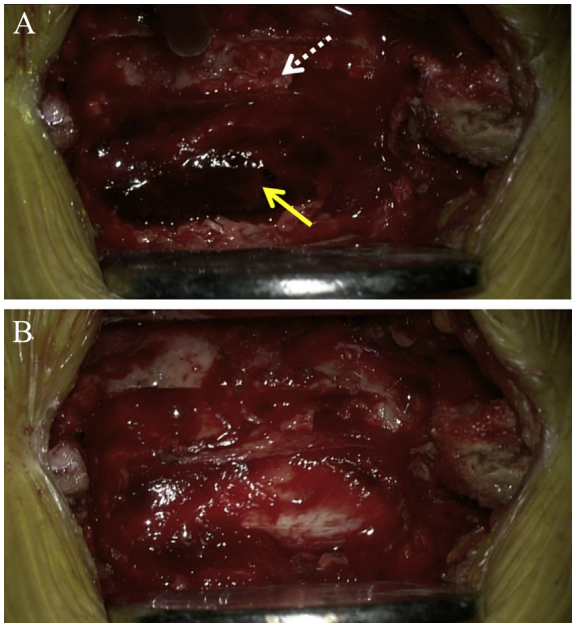

Figure 3. Intraoperative photos (cranial on the right). (A) Operative view after bilateral T2 and T3 laminectomy, a haematoma (yellow arrow) compressing on the spinal cord (dotted white arrow) dorsally; (B) upon removal of the blood clot, decompression of the spinal cord with cord pulsation noted.