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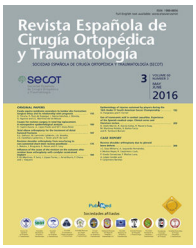

CASE REPORT

The cauda equina syndrome in pregnant woman with a massive disc herniation☆

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KEYWORDS
Cauda equina syndrome;
Herniated disc;
Pregnancy

Abstract Low back pain during pregnancy is a common cause of medical consultation. Although back pain is very common, the incidence of low back pain secondary to lumbar disc herniation in pregnancy is low (1:10,000).

Cauda equina syndrome from lumbar disc herniation is a serious complication. The delay in diagnosis and treatment can be a cause of chronic disability secondary to neurological sequelae. Numerous cases of disc herniation in pregnancy have been reported, however the association of a cauda equina syndrome as a result of disc herniation is rare. A case is presented of cauda equina syndrome in a pregnant woman at 12-week gestation.

PALABRAS CLAVE
Síndrome de cauda equina;
Hernia discal;
Embarazo

Síndrome de cauda equina en paciente embarazada con hernia de disco masiva

Resumen La lumbalgia durante el embarazo supone una causa frecuente de consulta médica. Si bien la lumbalgia es muy frecuente, la incidencia de lumbalgia secundaria a hernia discal durante la gestación es baja (1:10.000).

El síndrome de cauda equina secundaria a hernia discal representa una complicación muy grave. El retraso en el diagnóstico y en el tratamiento puede suponer una causa de discapacidad crónica secundaria a secuelas neurológicas. Se han comunicado numerosos casos de hernias discales durante el embarazo, sin embargo la asociación de un síndrome de cauda equina por hernia discal es poco frecuente. Presentamos el caso de un síndrome de cauda equina en una mujer embarazada de 12 semanas de gestación.

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Introduction

Low back pain during pregnancy is a common cause of medical consultation, mechanical and positional overload is its principle cause. Low back pain in pregnant women is very common, however cauda equine syndrome as a consequence of disc herniation is rare (1:10,000).[1,2]

Cauda equina syndrome secondary to disc herniation is a very serious complication which is characterised by bilateral sciatalgia, loss of lower limb strength, saddle hypoesthesia and genito-urinary sphincter disturbance.[1] Treatment is surgical in most cases. Delayed diagnosis and treatment can be a cause of chronic disability secondary to neurological sequelae. Despite the recommendation for emergency surgery, full recovery cannot be guaranteed and sequelae after surgery are relatively common. However, delayed or lack of surgery results in a greater risk of presenting definitive sequelae, which are more serious.[3]

Numerous cases of disc herniation have been described during pregnancy, however associated cauda equina syndrome is rare.[1,2,4,5]

Clinical case

We present the case of a 39-year-old woman at 12 weeks' gestation, who presented with at 12-h history of bilateral lumbosciatalgia associated with saddle anaesthesia, urinary incontinence and faecal urgency. The patient's background included a one-year history of chronic backache managed conservatively since it did not find it excessively restrictive. On physical examination she presented tendinous hyporeflexia, positive bilateral Lasègue's sign at 30° and absence of anal reflex.

The lumbar MRI scan showed massive left-sided disc herniation in L4–L5 severely stenosing the vertebral canal (Fig. 1).

Figure 2 Hernial fragment of lumber intervertebral disc obtained after discectomy.

Results

After assessment by the anaesthesiology and gynaecology departments, the patient was sent for emergency intervention and a left hemilaminectomy and microdiscectomy performed using a posterior approach with the patient in the prone position (Fig. 2).

No complications were observed in the mother or foetus during surgery.

Five months after surgery, the patient was walking normally but presented minimal saddle hypoesthesia and genito-urinary disturbance (repeated urinary infections). The pregnancy proceeded normally and she was expected to give birth imminently.

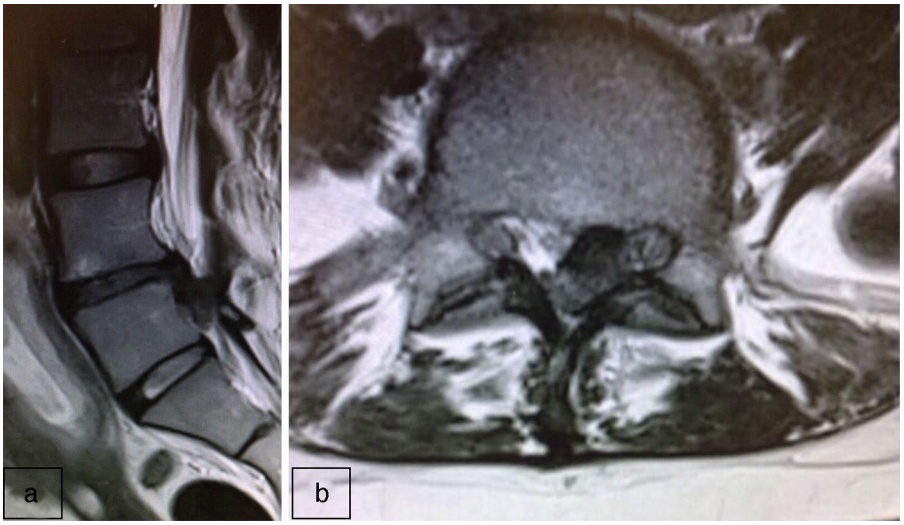

Figure 1 (a) Sagittal slice MRI: extruded disc herniation L4–L5 with caudal migration. (b) Axial slice MRI: left paracentral disc herniation touching the nerve root and retracting the dural sac.

Discussion

Cauda equina syndrome is a true medical emergency. The fact that it occurs in a pregnant patient should not contraindicate surgery. It can be operated with good outcomes both for mother and foetus.[1,2,4,5]

Due to the risk of disability, we must rule out this clinical picture in all patients consulting with lumbosciatalgia, including pregnant women. Diagnosis is fundamentally clinical. If there is a suspected sphincter disturbance we should perform rectal examination to test the tone of the anal sphincter. If the anal sphincter is hypotonic, an emergency MRI scan should be requested.[1,2,4,6]

MRI scans are not contraindicated during gestation and neither is general anaesthetic if it is required by the patient.

If the presence of extruded disc herniation is confirmed treatment should be surgical in the first 24–48 h. Urgent decompression can prevent definitive sequelae.[3]

Many studies support the need for emergency decompressive surgery, since spinal compression time is a major prognostic factor. There are other criteria which can predict outcomes: bilateral sciatalgia has less chance of total recovery than unilateral, patients with perineal anaesthesia are more likely to develop vesical sequelae. Saddle anaesthesia is the most significant predictive factor of recovery.[3]

Special care should be taken in positioning the patient to prevent excessive abdominal compression.[1,6–9] In our case a microdiscectomy was performed with the patient in the prone position, no complications were observed in the mother or the foetus. Although the operation was undertaken as an emergency, the patient presented sequelae likely to have been less serious than if surgery had not been performed or if it had been delayed more than 48 h.[3]

In summary, clinical pictures of backache during pregnancy are very frequent and are treated conservatively. However, we should perform an MRI scan for sudden-onset lumbosciatalgia associated with loss of strength, sphincter disturbance or saddle hypoesthesia. If the patient develops associated gradual neurological deficit and/or signs and symptoms compatible with cauda equina syndrome, emergency decompressive surgery should be performed to minimise neurological sequelae.

Level of evidence

Level of evidence IV.

Ethical disclosures

Protection of people and animals. The authors declare that neither human nor animal testing have been carried out under this research.

Confidentiality of data. The authors declare that they have complied with their work centre protocols for the publication of patient data.

Right to privacy and informed consent. The authors declare that no patients' data appear in this article.

Conflict of interests

The authors have no conflict of interests to declare.

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