Compressive Neuropathy: A Consequence of Mal-Positioning during Labour?

Neuropatia Compressiva: Uma Consequência do Mau Posicionamento durante o Trabalho de Parto?

Keywords: Femoral Neuropathy; Obstetric Labor Complications; Patient Positioning/adverse effects; Postpartum Period
Palavras-chave: Complicações do Trabalho de Parto; Neuropatia Femoral; Período Pós-Parto; Posicionamento do Doente/efeitos adversos

Dear Editor,

Neuropathies are rare labour related complications.¹ Foetal macrosomia, instrumented delivery, prolonged gynaecological position or mal-positioning during labour are well-established risk factors.¹ ² ³ ⁴

We present the case of a 30-year-old G2P1 woman who was admitted in spontaneous labour at 39 weeks of gestation. The first stage of labour had a normal duration. In the second stage of labour, a total of 1 hour and 20 minutes was spent in the lithotomy position with leg stirrups. She gave birth to a 3710 g male infant, Apgar Score of 9/10, after a vacuum-assisted vaginal delivery due to maternal exhaustion.

At day six after delivery, the patient presented steppage gait (foot drop due to loss of foot dorsiflexion) and paraesthesia in the right lower limb.

The neurological examination showed a right drop foot, with a right steppage gait, and hypoesthesia/paraesthesia in the cutaneous territories of L4 and L5 dermatomes of the same lower limb. Moreover, a mild weakness of hip flexion (grade 4/5) was observed. The clinical diagnosis of compressive neuropathy was proposed.⁵ Four locations were considered as possible sites for nerve lesion: fibular nerve, sciatic nerve, L5 root and lumbosacral plexus, the latter being clinically the most likely. An electromyography showed a mild decrease in the amplitude of sensitive nerve potential of the right superficial and deep fibular nerves when compared with the contralateral ones, and a decreased recruitment of posterior tibial, anterior tibial and long peroneal muscles during voluntary contraction. This result supported the diagnosis of a lumbosacral plexus lesion. A rehabilitation program was then started. One year later she showed full clinical and EMG recovery.

The incidence of postpartum neuropathy has been reported as being less than 0.5%,³ but today it may occur in about 1% of the deliveries, probably reflecting higher detection rates.¹ ² ³ ⁴ Its incidence may also be influenced by a lower threshold to decide c-section during labour (reflected in increasing rates worldwide), by decreasing the total duration of labour, a well-known risk factor for postpartum neuropathy.² ³ ⁴ The total recovery time is inversely related with an earlier diagnosis and treatment (based on rehabilitation and pain management).¹ ² ³ ⁴ The mean recovery time is of approximately six to eight weeks, but in general the total recovery time may extend up to six months to a year.¹ ² ³ ⁴

Recurrent postpartum neuropathy has been described in a few clinical case reports. In subsequent pregnancies, a caesarean section may be considered as the primary mode of delivery.²

This article highlights a rare postpartum complication, with the aim to improve awareness of compressive neuropathies during labour and therefore to adequately plan the appropriate multidisciplinary care for these patients.

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AUTHORS CONTRIBUTION

All authors contributed to the collection of the clinical data, its analysis and text preparation and writing.

PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in 2013.

DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients’ data publication.

PATIENT CONSENT

Obtained.

COMPETING INTERESTS

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