

Post Epidural Medullary Compression: A Case Report

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Citation: Hachmane N, Bassir A, Asmouki H, Soummani A (2019) Post Epidural Medullary Compression: A Case Report. J Preg Child Health 02: 105. DOI: 10.29011/JPCH-105.100005

Received Date: 06 August, 2019; **Accepted Date:** 19 August, 2019; **Published Date:** 26 August, 2019

Abstract

Loco-regional anesthesia, unlike general anesthesia, consists of an interruption of nerve conduction in a specific area of the body in a specific, temporary and reversible way. The majority of epidural hematomas caused by loco regional anesthesia occur in patients treated with anticoagulants or with intrinsic coagulation abnormalities. The diagnosis is based on magnetic resonance imaging. The prognosis depends on the speed of the surgical evacuation. The case has been reported because of its severity.

Keywords: Loco-Regional Anesthesia; Medullary Compression; Post Epidural

Introduction

Loco-regional anesthesia, unlike general anesthesia, consists of an interruption of nerve conduction in a specific area of the body in a specific, temporary and reversible way [1]. The ALR nevertheless remains, like any medical act, associated with certain accidents. These rare complications are becoming more and more of a concern, safety being a primary duty for every practitioner [2]. In addition to the indisputable advantages offered by these techniques of anesthesia, there are complications that are sometimes sequellar and definitive. We report a case of postpartum medullary compression supported in our maternal resuscitation unit of the Mohammed VI Medical Centre in Marrakech.

Case Report

We report the observation of a 34-year-old patient, primiparous in labour, the biological assessment, including blood crase was normal. No notion of taking anticoagulants preoperatively. For analgesia, an epidural catheter was set up after two attempts. The sensory level reached D8, without motor block. Delivery occurred without incident without any instrumentation, twelve hours postoperatively, a right lower monoplegia was found with sensory disorders and abolition of osteotendinous reflexes. The neurological examination of the controlateral limb was normal and there were no sphincter disorders the catheter was removed. A CT scan was performed but was inconclusive. A medullary Magnetic Resonance Imaging (MRI) performed after 36 hours,

while the clinical signs began to improve, objectified a posterior Dural collection of post-traumatic gait, without signs of medullary suffering (Figure 1). The blood count and platelet count were normal. The indication of a surgical decompression was not retained with the improvement of the motor deficit. The evolution was favourable with complete recovery of the sensorimotor deficit in seven days, without neurological sequelae.



Figure 1: Medullary MRI showing a posterior Dural collection of post-traumatic appearance, without signs of medullary distress.

Discussion

The epidural during labor is safe and well accepted; it provides effective analgesia to parturients [1]. The epidural space is a virtual space that surrounds the dura mater and extends from

the foramen magnum to the sacred hiatus at S2 / S3 [2]. Following obstetric series of variable size (from 10,995 to 505,000 deliveries) transient neurological deficits attributable to loco regional anesthesia occur in 1 case per 10,000 deliveries (0 to 5.6 / 10,000), and the incidence of prolonged or permanent deficits still related to loco regional anesthesia ranges from 0 to 0.77 cases per 10,000 deliveries. The epidural hematoma is due to trauma of the epidural venous plexus by the needle, during puncture, or by the catheter and can occur both at insertion and removal of the catheter. It is a rare complication of loco regional anesthesia (<1/150 000). Primary or secondary coagulation disorders are proven risk factors [3].

The majority of epidural hematomas caused by loco regional anesthesia occur in patients treated with anticoagulants or with intrinsic coagulation abnormalities. Epidural hematoma causes urinary and anal incontinence, bilateral muscle weakness in the lower limbs, and reduced patellar and Achilles reflexes. Acute dorsal pain and also in the lower limbs precedes the clinical signs with an aggravation in a few hours [4]. The sensory level of anesthesia is maintained if the hematoma occurs during it [5]. The intensity of the sensory and motor blocks increases before the other signs if the hematoma occurs during obstetric labor under epidural analgesia. Prolonged paralysis of the lower limbs without any regressive sign should alert [6]. CT and MRI should be performed urgently; the functional prognosis depends on the speed of the surgical decompression. The spontaneous epidural hematoma in obstetrics exists and complicates the understanding of the mechanism of this one. The origin of the spontaneous hematoma remains unknown. It is a rare accident. Only vigilance at all times can detect this type of complication.

The diagnosis is based on Magnetic Resonance Imaging (MRI), which must be performed as soon as possible in the presence of an abnormally persistent deficiency after epidural anesthesia or a predominant or greater motor deficit than expected. The prognosis depends on the speed of the surgical evacuation [7].

Conclusion

Although peri-medullary hematoma is a rare complication of epidural anesthesia, the poor neurologic prognosis means that it must be systematically suspected and investigated in the presence of any sensorimotor disorder. Prevention is based mainly on the non-traumatic nature of the puncture and the good perioperative management of anticoagulants.

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