### ARTICLE IN PRESS

**REV COLOMB ANESTESIOL.** 2017;**XXX(XX)**:XXX-XXX



## Revista Colombiana de Anestesiología

**Colombian Journal of Anesthesiology** 



www.revcolanest.com.co

#### Essay

# Obstetric analgesia: Current situation and alternatives ${}^{\scriptscriptstyle{\Uparrow}}$

#### Omar Fernando Gomezese<sup>a</sup>, Brian Estupiñan Ribero<sup>b,\*</sup>

<sup>a</sup> Surgery Department, Universidad Industrial de Santander, Bucaramanga, Colombia <sup>b</sup> Universidad Industrial de Santander, Hospital Universitario de Santander, Bucaramanga, Colombia

#### ARTICLE INFO

#### Article history:

Received 23 December 2016 Accepted 20 January 2017 Available online xxx

#### Keywords:

Analgesia Analgesia, obstetrical Analgesia, epidural Acute pain Labor, obstetric

#### Palabras clave:

Analgesia Analgesia obstétrica Analgesia epidural Dolor agudo Trabajo de parto

#### ABSTRACT

Pain management is part of the comprehensive approach to all patients and results in clear benefits. As such, obstetric analgesia seeks to reduce pain and provide better care during labour. However, its use is sometimes limited due to lack of access to, or availability of, anaesthesia services. Alternative techniques to the epidural analgesic approach are found in the literature, for use by general practitioners or healthcare staff in lower complexity settings. This article discusses general aspects of epidural obstetric analgesia, and other pharmacological and non-pharmacological management options.

© 2017 Published by Elsevier España, S.L.U. on behalf of Sociedad Colombiana de Anestesiología y Reanimación. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

#### Analgesia obstetrica: Situación actual y alternativas

#### RESUMEN

El manejo del dolor hace parte del abordaje integral de todos los pacientes y muestra claros beneficios. En este sentido, la analgesia obstétrica busca disminuir el dolor y brindar una mejor atención durante el trabajo de parto. A pesar de ello, su uso se ve limitado en ocasiones por falta de acceso o disponibilidad del servicio de anestesiología. En base a esto, en la literatura se encuentran técnicas alternativas al abordaje peridural para manejo analgesico, las cuales pueden ser empleadas por medicos generales o personal de salud de menor nivel de complejidad. Este artículo abordará aspectos generales sobre la analgesia obstétrica epidural, y otras opciones de manejo farmacológicas y no farmacológicas.

© 2017 Publicado por Elsevier España, S.L.U. en nombre de Sociedad Colombiana de Anestesiología y Reanimación. Este es un artículo Open Access bajo la licencia CC BY-NC-ND (http://creativecommons.org/licenses/by-nc-nd/4.0/).

\* Please cite this article as: Gomezese OF, Ribero BE. Analgesia obstetrica: Situación actual y alternativas. Rev Colomb Anestesiol. 2017. http://dx.doi.org/10.1016/j.rca.2017.01.002

\* Corresponding author at: Calle 114 No. 28 – 45, Bucaramanga, Colombia.

E-mail address: brian\_es@outlook.com (B.E. Ribero).

2256-2087/© 2017 Published by Elsevier España, S.L.U. on behalf of Sociedad Colombiana de Anestesiología y Reanimación. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

### **ARTICLE IN PRESS**

#### **REV COLOMB ANESTESIOL.** 2017;**xxx(xx)**:xxx-xxx

Type of technique	Technique	Effectiveness	Complications
Pharmacological	Peridural block	+++	+
	Combined analgesia	++++	+++
	Peripheral block (paracervical)	++	++
	Peripheral block (Pudendal)	++	++
	Inhaled: nitrous oxide	+	_
	Inhaled: halogenated agent (sevoflurane)	+	+++
	IV analgesia: opioids	++	+
Non-pharmacological	Relaxation techniques		
	Water immersion	+	-
	Massage	+	-
	Acupuncture	+	_
	Breathing modulation	+	_
	Music and audio-analgesia	+	-
	Aromatherapy	+	_
	Psychological techniques		
	Hypnosis	+	_
	Mechanical techniques		
	TENS	+	_

#### Introduction and objectives

At the present time, obstetric analgesia in the context of the Colombian health system is covered by the Mandatory Health Plan.<sup>1</sup> However, this intervention is not always used routinely, and its use is estimated to be higher in developed countries as compared to developing countries. In our setting, most of these procedures are performed in patients enrolled in prepaid or private medicine plans, partly due to the inequity of the system and the ability to gain access to the procedure.<sup>2</sup> Notwithstanding, all obstetric patients must be the subject of comprehensive care, and pain management must be an important component of the approach to these patients, given that studies have found that the absence of analgesia during labour is associated with a higher risk of postpartum depression and post-traumatic stress. Moreover, pain is considered as an unnecessary source of distress.<sup>3</sup> This article presents the results of a review of this topic, as well as useful management alternatives.

#### Method

The literature was reviewed, including several primary and secondary data sources covering the past 6 years (2009–2005) found in databases such as PubMed, Cochrane, and in anaesthesia and health publications listed in the References. The articles for analysis were selected from those bibliographic sources and they are presented from the authors' point of view.

#### **Topic development**

Obstetric analgesia is used with the aim of alleviating pain during labour. At the present time, one of the most widely used techniques is peridural analgesia, based on the use of drug infusion into this virtual space to create sensory blockade. This pain is now known to originate as a result of uterine contraction and cervical dilatation stimuli that travel up the spinal cord (T10-L1). This process triggers an adaptive hormonal response and rising cortisol and catecholamine levels.<sup>4</sup>

Epidural obstetric analgesia has not shown to have an impact on the rate of caesarean sections or neonatal Apgar scores. However, it has been associated with an increase in instrumented delivery when given during the expulsive phase; hence the need to perform it early on (during the latency and active phases).<sup>5</sup> For the technique, the patient is placed in lateral decubitus, the intervertebral space (L3-L4) is palpated, the peridural space is localised (loss of resistance or use of saline solution), and, finally, a No. 18–16 infusion catheter is introduced. It was shown in one study that there is no significant difference in terms of the type of method used for localising the peridural space when the anaesthetist is trained in both techniques.<sup>6</sup>

This type of analgesia is considered as the best management tool. However, despite good effectiveness and safety, it does entail complications, including neurological abnormalities during the peripartum period: lateralised analgesia (16.4%), vessel puncture (8.7%), paresthesias (8.2%), difficult technique (5.2%), ineffective analgesia (2.7%), and arterial hypotension (2.5%). In the postpartum period, complications include lumbar pain (18.5%), urinary retention (3.4%), post dural puncture headache (1.4%), and peripheral neuropathy (0.9%).<sup>7</sup>

Additionally, mention is made in the literature of both pharmacological and non-pharmacological alternatives to peridural analgesia (see Table 1). These vary in effectiveness and are used in case of failure or unavailability of the procedure.<sup>8</sup>

Pharmacological therapies include combined analgesia consisting of the administration of a dose of anaesthetic

# دريافت فورى 🛶 متن كامل مقاله

- امکان دانلود نسخه تمام متن مقالات انگلیسی
  امکان دانلود نسخه ترجمه شده مقالات
  پذیرش سفارش ترجمه تخصصی
  امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
  امکان دانلود رایگان ۲ صفحه اول هر مقاله
  امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
  دانلود فوری مقاله پس از پرداخت آنلاین
  پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات
- ISIArticles مرجع مقالات تخصصی ایران