

PARTURIENTS' LEVEL OF KNOWLEDGE REGARDING LABOUR ANALGESIA IN A UNIVERSITY HOSPITAL – LOCAL EXPERIENCE

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Abstract

Background and aims. We discuss the level of knowledge in pregnant women regarding epidural analgesia in our local university hospital.

Material and Methods. We designed a form with twelve sections used for data collection. During the study the following data were collected: the demographic characteristics of the women participating in the research, their obstetric and gynaecologic history and the reasons why they preferred epidural anaesthesia. Another section consisted of an evaluation form with questions directed at maternal satisfaction and VAS pain scale during the delivery process. We also investigated the number of epidural procedures performed in major public and private obstetrical hospitals.

Results. We enrolled 205 ASA I parturients. The mean (\pm SD) age of our subjects was 26 ± 12 years. A total of 25.36% of women delivered with epidural analgesia of which 61.53% were university graduates. Twenty-one patients (10.24%) had knowledge about this procedure but refused to perform it. They had a previous negative experience regarding labour analgesia, they were afraid of side effects or they were influenced by their friends' negative experience. We also observed that the number of procedures in county hospitals is very low compared with major university or private hospitals around our country.

Conclusions. The majority of women participating in the present study did not experience labour analgesia. They were uninformed and unaware about the benefits or possible side effects.

Keywords: epidural anaesthesia, level of knowledge, maternal satisfaction.

NIVELUL DE INFORMARE AL PARTURIENTELOR PRIVIND ANALGEZIA PERIDURALĂ LA NAȘTERE - EXPERIENȚA LOCALĂ A UNUI SPITAL UNIVERSITAR

Rezumat

Obiective. Se discută nivelul de informare al femeilor gravide privind analgezia peridurală la naștere într-un spital universitar.

Material și metodă. Am proiectat un formular cu douăsprezece secțiuni folosite pentru colectarea de date. În timpul studiului au fost culese următoarele date: caracteristicile demografice ale femeilor participante la cercetare, antecedentele personale fiziologice și patologice, precum și motivele pentru care au preferat sau au refuzat anestezia peridurală în timpul nașterii. O altă secțiune constă într-un formular de evaluare cu întrebări îndreptate spre satisfacția maternă și scala VAS a durerii în

timpul travaliului. Am investigat, de asemenea, numărul de proceduri de anestezie epidurală efectuate în principalele spitale publice și private cu specific de obstetrică-ginecologie din România.

Rezultate. *Am inclus în studiu 205 parturiente ASA I. Pacientele au avut o vârstă medie (\pm DS) de 26 ± 12 ani. Un total de 25,36% din femei au născut cu analgezie epidurală, din care 61,53% au fost absolvente de studii superioare. Douăzeci și unu de pacienți (10,24%) au avut cunoștințe privind această procedură, dar au refuzat să o efectueze, datorită unei experiențe anterioare neplăcute, frica de efectele secundare sau influența persoanelor apropiate. Am observat, de asemenea, că numărul de proceduri în spitalele județene este foarte mic, în comparație cu principalele spitale universitare sau private din România.*

Concluzii. *Majoritatea femeilor participante la studiu nu au experimentat analgezia peridurală la naștere. Acestea nu dețin informații suficiente cu privire la avantajele sau posibilele efecte secundare ale acestei proceduri.*

Cuvinte cheie: analgezia peridurală la naștere, nivelul de cunoaștere, satisfacția maternă.

Introduction

There are a variety of methods for delivery analgesia used all over the world. There are different techniques used for this purpose, intermittent bolus injections and continuous epidural infusions (CEI), with or without patient controlled epidural analgesia

Although epidural analgesia is becoming increasingly popular around the world, its application in Romania is still restricted. Therefore, we aim to analyse the reasons why women prefer epidural analgesia and the level of participants' knowledge concerning epidural analgesia. We also aim to assess the number of epidural requests in some major hospitals and private clinics around the country.

Methods

The study was conducted in our University Hospital maternity ward between January and July 2010. We included in the study 205 pregnant women evaluated through a questionnaire, in order to analyse the reasons why women prefer epidural analgesia and also to determine the level of participants' knowledge concerning epidural analgesia and if there were any differences between those who did and those who did not receive epidural anaesthesia. A form with twelve sections was used for data collection. The first section contained questions to determine the demographic characteristics of the women participating in the research, their obstetric and gynaecologic history and the reasons why they preferred epidural anaesthesia. The second section consisted of an evaluation form with questions directed at maternal satisfaction and VAS pain scale during the delivery process.

Before beginning data collection, the researcher provided the participants with information about the

purpose of the research, and obtained their permission. The questionnaire was completed by the researcher via one-on-one interviews. We also extended the investigation regarding the number of epidural procedures performed in major public and private obstetrical hospitals. The research data were evaluated using MedCalc version 9.1 with descriptive statistics (mean, standard deviation, frequency), *t* test was used in the comparison of the nominal data, and chi-squared test was used in the comparison of qualitative data. A 95% confidence interval and $p < .05$ were used in the evaluation.

Results

We recruited in the study 205 parturients. The mean (\pm SD) age of our subjects was 26 ± 12 years. The parturients' demographic, anthropometric and labour data are summarised in Table I.

A total of 25.36% of women delivered with epidural analgesia of which 61.53% were university graduates. The majority were informed about the procedure (84.61%). The women delivering without analgesia (74.64%) were mostly high school graduates (55.55%) and had no knowledge about labour analgesia (87.27%). There was a significant difference regarding the level of education between the two groups ($p=0.05$). The reasons why parturients chose epidural analgesia are illustrated in Table II. A high percentage of them were afraid of pain during labour (57.7%).

Twenty-one patients (10.24%) had knowledge about this procedure but refused to perform it. The reasons are illustrated in Table III. They had a previous negative experience regarding labour analgesia (23.8%), they were afraid of side effects (19.04%) or they were influenced by their friends' negative experience (23.8%).

Table I. Characteristics of patients included in the study (N = 205).

Characteristic	Labour analgesia (n = 52)		No labour analgesia (n = 153)		p
	n	%	n	%	
Age, yrs					
≤20	7	13.46	45	29.41	0.8
21-30	38	73.08	75	49.02	
≥30	7	13.46	33	21.57	
Educational level					
Elementary	2	3.85	53	34.64	0.05
High school	18	34.62	85	55.55	
University	32	61.53	15	9.81	
Knowledgeable					
Yes	44	84.61	21	13.73	0.02
No	8	15.39	132	86.27	

Table II. Reasons why participants choose epidural analgesia (n = 52).

Reasons	n	%
Fear of the labour pain	30	57.7
Negative delivery experiences	12	23.07
Friends' positive experiences	10	19.23

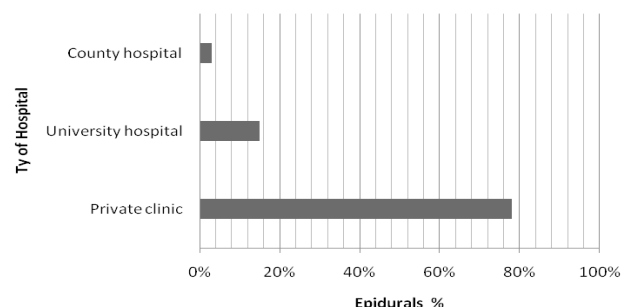
Table III. Reasons why participants deny epidural analgesia (n = 21).

Reason	n	%
Desire for natural labor	7	33.4
Negative epidural experiences	5	23.8
Friends' negative experiences	5	23.8
Fear for side effects	4	19.04
Gynaecological advise	6	28.57

During the procedure, only 4 women (7.69 %) experienced pain. After delivery, they stated that were not pleased with delivering with epidural analgesia and will not encourage their friends to experience it. The other patients that experienced labour analgesia were highly satisfied and did not report any side effects (data not shown). Their mean VAS evolution is illustrated in figure 1, showing a decrease in their VAS score after epidural analgesia with low variations according to dilatation.

Figure 1. VAS evolution in patients having labour analgesia.

We recorded the number of epidurals reported by major private, university and county hospitals from Romania during 2009, with a statistically significant difference between them ($p < 0.0001$). The number of procedures in county hospitals is very low (Figure 2).

**Fig 2.** Epidural procedures' percentages in major hospitals from Romania.

Discussions

Based on the premise that “maternal request is sufficient justification for pain relief during labour”, as stated by the American College of Obstetricians and Gynecologists and the American Society of Anaesthesiologists [1], it is of vital importance to better understand labour pain. Epidural analgesia is a preferred method of pain relief for women in developed countries [2]. The search for the best technique is focused on less intense motor block, small anaesthetic dose and improved patient satisfaction [3], offering psychological comfort and alleviation of excessive pain [4]. There are also side effects reported during labour epidural anaesthesia, such as maternal hypotension, itching, shivering, fever, urinary retention and dural puncture [5,6] and also an increase in the incidence of caesarean delivery [7]. With this information stated, the results illustrated in our report are somehow justified.

In a study conducted by Minhas et al. (2005) [8], 76% of women knew that epidural analgesia was a method of labour pain relief; however, only 19% took advantage of this method. In the present study, 25.36% experienced labour analgesia and 84.61% of them had previous knowledge about this procedure, whereas 86.27% of women who did not deliver with epidural analgesia had no previous knowledge about epidural analgesia. When women have painless labour, there is an increase in their positive opinions about epidural analgesia and they are able to participate actively in their labour [9]. The reasons why

parturients chose epidural analgesia are fear of the labour pain, negative delivery experiences and friends' positive experiences. A high percentage of them were afraid of pain during labour (57.7%). In the present study, the reasons why parturients refused epidural analgesia were the desire for natural labour, negative epidural experience, friends' negative experiences and fear for side effects. As pointed out by Bussche et al. [10], the main factor behind their decision was the social influence of their immediate environment, such as family members or friends who had had positive experiences with epidural analgesia. There are many studies that report age, education, and health insurance as influential factors in the decision to use epidural analgesia [11,12,13,14]. We report a low percentage of epidural procedures during labour (25.36%), most of them (61.53%) being university graduates. The majority were informed about the procedure (84.61%). There was a significant difference regarding the level of education between the group that had epidural analgesia and the group that did not experienced the procedure ($p=0.05$). The women delivering without analgesia (74.64%) were mostly high school graduates (55.55%) and had no knowledge about labour analgesia (87.27%).

The reason for this finding may be that epidural analgesia is not widely used in normal childbirth in Romania. According to the reports from 2009 epidural analgesia is used by approximately 78% of women during normal childbirth at private hospitals. Even if the number of private clinics is not very high in our country, they are more focused in promoting their procedures, with a significant difference ($p<0.0001$) from university hospitals and county units. The extremely low percentage (3%) of epidural analgesia for labour in county hospitals might be explained by inexperienced personal and lack of appropriate material [15]. Young doctors are unable to learn the correct procedure. Their practice in an obstetrical hospital is much too short to assure the proper achievements. That is why there is also a migration phenomenon from county to university and private hospitals. Parturients prefer hospitals with experienced personal and proper equipment. The most important concern is that the Romanian public does not have enough information on this topic, and public health insurance programs don't cover epidural analgesia. For those who experienced the procedure, only 4 women (7.69 %) experienced pain. After delivery, they stated that were not pleased with delivering with epidural analgesia and will not encourage their friends to experience it. The other patients that experienced labour analgesia were highly satisfied and did not report any side effects. El-Hamamy & Arulkumaran also showed that women did not feel pain during labour, that labour concluded successfully, women were aware of all the events during labour, and they felt comfortable [15].

Conclusions and Implications

The majority of women participating in the present study did not experience labour analgesia. They were uninformed and unaware about the benefits or possible side effects. If they knew about the procedure, the reasons they refused epidural analgesia were the desire for natural labour, negative epidural experience, friends' negative experiences and fear for side effects.

A low percentage of our study group chose epidural analgesia. They were afraid of labour pain, had previous negative delivery experiences or heard about friends' positive experiences. They were well informed and aware about the procedure. Pregnant women need to be informed; therefore educational materials need to be prepared regarding benefits, side effects and potential emergency complications. Additional personal needs to have sufficient knowledge to ensure a safe and painless childbirth to whoever wants epidural analgesia.

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