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Expectations and knowledge of intrapartum epidural analgesia: what women want

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ABSTRACT

Aim: to investigate the expectations and knowledge of intrapartum epidural analgesia from woman's point of view.

Methods: a multidimensional investigation was carried out on a sample of 360 healthy women in a large Italian obstetric facility. Results. Intrapartum epidural analgesia was more common in patients with higher education level and higher socio-economic income as well as in women who are employed. Most epidural analgesia were requested by patients who judge themselves as anxious and who have fear of pain in labour. Many women demanding epidural analgesia seem to fear a loss of control during labour. Additionally, some of those not wanting epidural analgesia feel that it can negatively affect their ability to collaborate. In spite of adequate pain control, a proportion of women with epidural analgesia was poorly satisfied by the procedure. Overall, patients were poorly informed about intrapartum epidural analgesia.

Conclusion: the main expectation of patients from epidural analgesia is the ability to maintain self-control during labour and delivery rather than pain relief. As the goal of intrapartum analgesia is pain relief, patients should be better counseled about intrapartum epidural analgesia in order to avoid a situation where an unnecessary analgesia betrays their expectations.

Keywords: intrapartum epidural analgesia; birth fear; support; collaboration; pain relief.

SOMMARIO

Scopo: indagare le aspettative e la conoscenza della partoanalgesia epidurale dal punto di vista delle donne.

Metodi: è stato somministrato un questionario multidimensionale su un campione di 360 donne sane in un grande punto nascita italiano. Risultati. La partoanalgesia epidurale è stata più frequente nelle pazienti con un più alto livello scolare, con più alto livello sociale e che lavorano. La maggior parte delle partoanalgesie sono state richieste da pazienti che si giudicavano ansiose e che avevano paura del dolore durante il travaglio. Inoltre, alcune pazienti che non desideravano la partoanalgesia credevano che essa potesse condizionare negativamente la loro capacità di collaborare. Nonostante un adeguato controllo del dolore, una porzione di donne sottoposte a partoanalgesia epidurale è stata poco soddisfatta dalla procedura. Complessivamente, le pazienti erano poco informate circa la partoanalgesia epidurale.

Conclusioni: ciò che le donne si aspettano principalmente dalla partoanalgesia è la capacità di mantenere un controllo di sé. Giacché l'obiettivo della partoanalgesia è il sollievo dal dolore, le pazienti dovrebbero essere meglio informate sulla partoanalgesia epidurale, con lo scopo di evitare la situazione in cui una analgesia inutile tradisce le loro aspettative.

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INTRODUCTION

"Birth fear" summarizes expectations and perspectives of labour and birth in the case of negative feelings about delivery. It has been hypothesized that the birth fear could be managed psychologically, and study on the topic is ongoing[1]. In case of birth fear, epidural analgesia could be able to help patients to collaborate[2]. However, the goal of intrapartum analgesia is pain relief[3]. Therefore, intrapartum analgesia should not entirely control birth fear, as it does not fully relieve negative feelings about birth.

The following study will focus on the expectations and knowledge of intrapartum epidural analgesia from a woman's point of view, hypothesizing that epidural analgesia cannot entirely control the "birth fear".

MATERIALS AND METHODS

A multidimensional investigation was carried out on a sample of 360 healthy women who delivered vaginally (spontaneous or operative birth) at the "San Pietro Fatebenefratelli" Hospital of Rome, between February 2014 and September 2014. Patients were asked to respond to a questionnaire of 22 items. Patients had to answer 17 questions during labour and 5 questions after birth. Some answers were open. All questionnaires were anonymous.

The questionnaire assessed structural data (age, educational level, social-economic level, occupation, nationality), obstetric data (previous deliveries, previous miscarriages, labour induction, gestational age), psychological data (self-reporting as anxious, volitional or disclosing to have fear of pain in labour). Additionally, the questionnaire assessed the knowledge of the intrapartum epidural analgesia and from whom information on epidural analgesia was provided. Finally the questionnaire investigated how did the women fell after delivery (subjective assessment), the degree of satisfaction from epidural analgesia (numeric rating scale from 0 to 10), the level of pain before and after the epidural analgesia (same numeric rating scale from 0 to 10), and if patients would repeat epidural analgesia in a succeeding labour.

Concepts expressed in the open answers were extracted and logically aggregated. The answers referred to three questions: A) why the women don't wanted the epidural analgesia in the actual labour, B) why would the women repeat the epidural analgesia in a succeeding delivery; C) why would not the women repeat the epidural analgesia in a succeeding delivery. Such questions were asked to subgroups of patients who did not undergo epidural analgesia in the actual labour (question A), and in the subgroups of patients who stated they wanted (question B) or they did not want (question C) the epidural analgesia in another delivery.

Results were reported as rates. Univariate comparisons were made by chi square test, among patients who underwent and who did not undergo epidural analgesia. Significance was set at p level of less than 0.05.

RESULTS

Of the 360 patients, 223 underwent epidural analgesia. Pain level of more than 5 (on a numeric rating scale from 0 to 10) were reported in 210 patients out of 223 (94%). After epidural analgesia, only 36 (16%) patients reported pain levels of more than 5. 181 patients (81%) reported a level of satisfaction after epidural analgesia of more than 5 on a numeric rating scale from 0 to 10, while 42 (19%) reported a level of satisfaction of less than or equal to 5. **Table 1** describes the rates of items investigated among patients who underwent and who did not undergo epidural analgesia, along with significance of rates comparisons. **Table 2** describes the concepts extracted from subgroups answering to the open answers.

DISCUSSION

This study has investigated some issues about knowledge and expectations of epidural analgesia in a sample of women from a large Italian facility. The requests of epidural analgesia were more common in higher education level and higher socio-economic income patients as well as those who are employed. This category of women is more likely to be well informed about the goal of epidural analgesia and they are more likely Italians.

As the goal of epidural analgesia in labour is pain relief[3], it is interesting highlight that most epidural analgesia were requested by patients who judge themselves as anxious and by the ones who have fear of pain in labour. Overall, many women requesting epidural analgesia feel they would not be able to control themselves during labour and would aim to be able to collaborate. Pain relief is not the only goal of many patients requests of epidural analgesia (question B, **Table 2**). Additionally, some women who do not want the

Table 1.
Structural, obstetric, psychological, subjective data, and information about knowledge of intrapartum epidural analgesia.

	Epidural analgesia (N 223) crude numbers - rates	No epidural analgesia (N 137) crude numbers - rates	p
Structural data (crude numbers - rates)			
Age in years			
- less than 18 (7 - 2%)	3 – 1%	4 – 3%	n.s.
- between 18 and 25 (32 - 9%)	18 - 8%	14 – 10%	n.s.
- between 25 and 35 (216 - 60%)	141 – 63%	75 – 55%	n.s.
- over 35 (105 - 29%)	61 - 27%	44 - 32%	n.s.
Educational level			
- primary school (7 - 2%)	3 – 1%	4 - 3%	n.s.
- middle school (50 - 14%)	21 - 9%	29 - 21%	0.003
- secondary school (162 - 45%)	99 - 44%	63 – 46%	n.s.
- university degree (141 - 39%)	100 - 45%	41 - 30%	0.007
Social-economic level			
- Low (22 - 6%)	8 - 4%	14 - 10%	0.02
- Middle-low (50 - 14%)	28 - 13%	22 - 16%	n.s.
- Middle (194 - 54%)	128 - 57%	66 – 48%	n.s.
- Middle-high (83 - 23%)	49 - 22%	34 - 25%	n.s.
- High (7 - 2%)	7 - 31%	0 – 0%	n.s.
- Unknown (4 - 1%)	1 – 0.4%	3 - 2%	n.s.
Occupation			
- employee with contract (108 - 30%)	81 - 36%	27 – 18%	0.001
- employee with term contract (123 - 34%)	75 - 34%	48 - 35%	n.s.
- unemployed (68 - 19%)	37 - 17%	31 - 23%	n.s.
- looking for first job (11 - 3%)	6 – 3%	5 – 4%	n.s.
- student (14 - 4%)	7 - 3%	7 - 5%	n.s.
- homemaker (32 - 9%)	16 - 7%	16 - 12%	n.s.
- other (4 - 1%)	1 – 0.4%	3 - 2%	n.s.
Nationality			
- Italian (277 - 77%)	180 - 81%	97 – 71%	0.041
- Foreigner (83- 23%)	43 - 19%	40 - 29%	
Obstetrics data (crude numbers - rates)			
Previous deliveries			
- None (184 - 51%)	112 - 50%	72 - 53%	n.s.
- One (122 - 34%)	89 - 40%	33 - 24%	0.003
- Two (36 - 10%)	18 - 8%	18 - 13%	n.s.
- Three or more (18 - 5%)	4 - 2%	14 - 10%	<0.001
Miscarriages			
- None (252 - 70%)	150 - 67%	102 - 74%	n.s.
- One (90 - 25%)	64 - 29%	26 - 19%	n.s.
- Two (14 - 4%)	7 - 3%	7 - 5%	n.s.
- Three or more (4 - 1%)	2 - 1%	2 - 1%	n.s.
Gestational age			
- 22 - 36 weeks (25 - 7%)	14 - 6%	11 – 8%	n.s.
- 37 - 41 weeks (321 - 89%)	199 - 89%	122 – 89%	n.s.
- 42 weeks (14 - 4%)	10 - 4%	4 - 3%	n.s.
Labour onset			
- Spontaneous (209 - 58%)	115 - 52%	94 - 69%	0.002
- Prostaglandin-agonists induction (122 - 34%)	79 - 35%	43 - 31%	n.s.
- Oxytocin induction (29 - 8%)	15 - 8%	14 - 10%	n.s.
Psychological data (crude numbers - rates)			
Self-reported as anxious			
- Yes (173 - 48%)	146 - 65%	27 - 20%	<0.001
- No (187 - 52%)	77 - 35%	110 - 80%	

Self reported as volitional			
- Yes (166 - 46%)	104 - 47%	62 - 45%	n.s.
- No (194 - 54%)	119 - 53%	75 - 55%	
Fear of pain in labour			
- Yes (238 - 66%)	184 - 83%	54 - 39%	<0.001
- No (122 - 34%)	39 - 17%	83 - 61%	
Knowledge of epidural analgesia (crude numbers - rates)			
To what extent she judges herself informed about epidural analgesia			
- Greatly informed (144 - 40%)	113 - 51%	31 - 23%	<0.001
- Quite well informed (159 - 44%)	96 - 42%	63 - 46%	n.s.
- Poorly informed (43 - 12%)	13 - 6%	30 - 22%	<0.001
- Not informed (14 - 4%)	1 – 0.4%	13 - 9%	<0.001
Who informed her			
- Internet (58 - 16%)	29 - 13%	29 - 21%	n.s.
- TV (11 - 3%)	3 - 1%	8 - 6%	0.037
- Gynecologist (101 - 28%)	66 - 30%	35 - 26%	n.s.
- Friends, family (43 - 12%)	22 - 10%	21 - 15%	n.s.
- Pre-delivery courses (122 - 34%)	91 - 41%	31 - 23%	<0.001
- Anesthesiologist (14 - 4%)	12 - 5%	2 - 1%	n.s.
- Others (0 - 0%)	0 - 0%	0 - 0%	n.s.
- None (4 - 1%)	0 - 0%	4 - 3%	0.041
- Does not know (7 - 2%)	0 - 0%	7 - 5%	0.003
Subjective data after birth (crude numbers - rates)			
How does she feel after birth			
- Very well (187 - 52%)	90 - 40%	97 - 71%	<0.001
- Quite well (119 - 33%)	84 - 38%	35 - 26%	0.024
- Not well at all (43 - 12%)	38 - 17%	5 – 4%	<0.001
- Pretty bad (11 - 3%)	11 - 5%	0 - 0%	0.020
Would she undergo epidural analgesia in a subsequent labour			
- Yes (191 - 53%)	190 - 85%	1 - 1%	<0.001
- No (126 - 35%)	5 - 2%	121 – 88%	<0.001
- Doesn't know (43 - 12%)	28 - 13%	15 - 11%	n.s.

epidural analgesia believe that epidural analgesia can negatively affect their ability to collaborate (last line, question A, **Table 2**). Interestingly, self-control is not linked with pain, and would not fully relieved by epidural analgesia (many patients who do not feel well after delivery are the same as those who request epidural analgesia). Moreover, a proportion (19%) of patients who underwent epidural analgesia reported a low level of satisfaction (5 or less). Therefore many women believe that the request for epidural analgesia should allow a certain self-control during labour to be able to collaborate. This same kind of self-control is usually provided by the continuous support of the midwives, because it is demonstrated that providing a continuum of support during labour decreases the risk of resorting to intrapartum analgesia[4].

Recently, Marowitz[5] has highlighted that expectations of women during the first phases of labour are less likely to be satisfied, because less appropriate support by caregivers (i.e., the midwives) is provided. Failure in support generate anxiety and feelings of vulnerability in labouring women. Logical consequences of such feelings are the loss of collaboration and birth fear. It is likely that sometimes adequate support provided by midwives is not achieved[6] leading women to ask for either epidural analgesia or Cesarean section.

Overall, the present results also demonstrate

Table 2.
Concepts extracted from open answers.

	Crude numbers - rates
A. Why you do not want epidural analgesia for this labour (N 137)	
- Fear of needle	37 - 27%
- Fear of feeling more pain	21- 15%
- Fear of risks and contraindications	28 - 20%
- Fear of danger to baby	15 - 11%
- Did not have epidural in a previous labour	3 - 2%
- Family does not agree with epidural analgesia	3 - 2%
- Pain is bearable	1 - 1%
- Complete dilatation	14- 10%
- Does not know epidural analgesia	7 - 5%
- Fear of slowing down labour	4 - 3%
- Desire to experience natural physiology	3- 2%
- Fear of not being able to collaborate	1 - 1%
B. Why you would repeat epidural analgesia in a successive labour (N 191)	
- Relief (any kind) during labour	94 - 49%
- Pain relief during labour	27 - 14%
- Pain is unbearable	2- 1%
- It helps to face delivery	2- 1%
- It allows for collaboration during labour	55 - 29%
- I have done it in a previous labour	1- 0.5%
- Self-control	10 - 5%
C. Why you would not repeat epidural analgesia in a successive labour (N 126)	
- Fear of feeling more pain	20 - 16%
- Pain is bearable	16 - 13%
- Dissatisfaction from epidural analgesia	3 - 2%
- I did not do it in the previous labour	1 - 1%
- It is not physiological	4 - 3%
- I do not know epidural analgesia	5 - 4%
- Fear of danger to the baby	13 - 10%
- Fear of slowing down labour	4 - 3%
- Fear of risks	27 - 21%
- Fear of needle	33 - 26%
- Fear of not being able to collaborate	0 - 0%

that patients are poorly informed or not informed about epidural analgesia in labour. The inadequate information leads to misconceptions about the risks and contraindications of intrapartum epidural analgesia, and may also be the cause of misunderstanding that the goal of epidural analgesia is pain relief. It seems appropriate to stimulate obstetricians, anesthesiologists and midwives to more deeply explore what women want from intrapartum epidural analgesia in order to avoid that women would believe to find the solution to their loss of control with intrapartum analgesia. Risks, contraindications, indications and goals of intrapartum epidural analgesia should then be explained. Finally, the stakeholders should also provide a continuum in support as well. If patient expectations are betrayed, the birth experience and labour outcome are worsened, be it with or without intrapartum epidural analgesia.

In conclusion, the collaboration during labour seems to be the main expectation of women from intrapartum epidural analgesia. Large misunderstanding of the goal of the intrapartum epidural analgesia is spread among delivering women, as the main goal of the epidural analgesia is pain relief. Therefore, intrapartum epidural analgesia fails to fully prevent the so called "birth fear".

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