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Knowledge, attitude and practice of parturients regarding Epidural Analgesia for labour in a university hospital in Karachi

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Abstract

Objective: To assess the knowledge, sources of knowledge, attitude (fears and misconceptions) regarding Epidural Analgesia (EA) and practices of parturients delivery at Aga Khan University hospital (AKUH).

Methods: A hospital based cross sectional study was conducted at the obstetric unit of AKUH, from November to December 2003. A questionnaire was filled through verbal interviews conducted on 448 parturients fulfilling the inclusion criteria.

Results: Seventy six percent of the females were aware of epidural analgesia as a labor pain relieving method. However, only 19% availed EA. About 40% had heard about EA from their obstetricians and 64% from friends or relatives. Twenty even percent believed that EA has detrimental effects on the baby while 9% stated that EA can prolong the duration of labour.

Conclusion: Majority of the pregnant females delivering at Aga Khan University Hospital were aware of epidural analgesia for labour. However, only a small proportion are availing this service, due to fears and misconceptions (JPMA 55:63;2005).

Introduction

Epidural analgesia (EA) is widely used as an effective method of relieving labor pain. It provides almost complete labor pain relief (90-95%) if administered timely and does not impede the progress of the first stage of labor.1 With the advances in technology of drug delivering system and monitoring equipments, now EA is not only a preferred but also a very safe method of pain relief during labor. A prospective analysis of 10,995 cases done in Australia in 1998 shows that EA for labor is now safer than in the past.2 When compared to opiods, epidural analgesia permits the mother to remain awake during labor and delivery so that she can experience the pleasure of actively participating in the birth process of her child.1 Studies conducted so far in the field of labor analgesia have focused on drug trials, which have evaluated the efficacy of various drugs that are used in epidural analgesia.3-5 Research in western countries has assessed the knowledge of the obstetricians and the nursing staff regarding EA.6,7 Very few studies have been conducted focusing on the parturients' views regarding labor analgesia in general and EA in particular.3,5,8 In order to increase the utility of pain free labor, it is important to assess the consumers' perspective regarding EA.

In most of the countries now it is the preferred technique of analgesia for labor.4,9 In the United Kingdom 90% of obstetric units offer 24 hours epidural service with a high level of acceptance.4 Research has highlighted the benefits of a collaborative approach between anesthetists, obstetricians, midwives, nurses

and antenatal classes for providing information regarding EA to the pregnant females.6,7,10
In Pakistan epidural analgesia is a relatively new concept being available in very few hospitals. Our hospital offers epidural service for labor analgesia. Although information on EA is provided to the parturients during antenatal classes, refusal rate is high.

Due to a high refusal rate for EA, a cross sectional survey was done to access the knowledge, sources of knowledge, fears and misconceptions regarding EA of parturients delivering in the obstetric unit at AKUH. The results of the study will be useful in forming information manuals for pregnant females to increase the utilization of EA during delivery.

Methods

After approval from the Hospital Review Committee the study was performed at the obstetric unit of AKUH from November 1 to December 31, 2003. At AKUH approximately 300 deliveries are conducted every month and Epidural service, staffed by senior anaesthetists, is available for twenty four hours.

All pregnant females registered for delivery were interviewed using a semi-structured questionnaire. Parturients who were unable to answer the questions due to pain or sedation and those who had come in emergency labour were excluded from the study. A total of 448 parturients were interviewed after obtaining informed consent.

Results

Only 19% of the participants availed EA. Table 1 shows the socio-demographic characteristics, knowledge, sources of knowledge and practices of the respondents. Majority of the females were young (mean age 26.8 years) and educated and 85% were house wives. Seventy six percent were aware of epidural analgesia for labour. Friends, relatives and obstetricians were found to be the main source of knowledge regarding EA (Table 1).
Table 1. Socio-demographic characteristics, knowledge, sources of knowledge and practices of the parturients delivering at AKUH .

Variables	n=448	%
Mean age f the parturient	26.8+4.5	
Matric and below	57	13
Intermediate and above	391	87
Occupational status of the respondents		
Housewife	379	85
Employed*	69	15
Knowledge** of epidural analgesia	342	76
Availed epidural analgesia	-	19
Sources of knowledge regarding epidural analgesia[a]	n=342	%
Obstetrician	136	40
Antenatal classes	31	9
Anesthetists	13	4
Friend/relative	219	64
Literature	88	26
Internet	3	1
Other patients	14	4
Labour room staff	27	8

[a] Taken as multiple responses.
*Defined as those who had heard of the word "epidural" or "painless delivery".
**This includes doctors, nurses, midwives, nursing attendants, engineers, bankers and private employees.
"Permanent backache" was the most commonly stated fear (Table 2). About 27% of the respondents had the misconception that EA causes detrimental; effects on the health of baby or mother, while 9% were of the view that it could prolong the duration of labour (Table 2).

Table 2. Fears and misconceptions of the parturient related to epidural analgesia for labour, delivering at AKUH.

Fears related to epidural analgesia*	n=342	%
Causes permanent backache	80	24
Causes weakness or paralysis of limbs	32	9
Headache	21	6
Labour ends up in C-section	11	3
Instrumental delivery	9	3
Don't know	222	66
Misconceptions related to epidural analgesia		
Painless delivery causes detrimental effects to health of baby or mother	94	27
Epidural prolongs the duration of labour	31	9
Don't know	217	63

*Close ended questions taken as multiple responses.
Knowledge of parturients regarding EA was significantly associated with their education level (p value <0.001). Graduates and above were more likely to have knowledge regarding epidural analgesia compared to those who had education of intermediate level and below (Table 3).
Table 3. Univariate analysis showing factors associated with knowledge regarding epidural analgesia for labour.

Variables	Had knowledge regarding epidural analgesia (n=342)	Odds ratio CI 95%	p-value
Educational status			
ntermediate and below	27 (8%)	1.0	
Graduate and above	315 (92%)	4.6 (2.5-8.2)	<0.001
Occupation			
Housewife	281 (82%)		
Working females	61 (18%)	2.6 (1.2-5.7)	0,01
Visited the obstetrician			
No	4 (1%)	1.0	
Yes	338 (99%)	7.8 (2.3-2.6)	0.001
Attended antenatal classes			
No	56 (16%)	1.0	
Yes	286 (*84%)	3.9 (1.5-10.1)	0.002
Current delivery			
Fourth and above	27 (8%)	1.0	1.19
Third	50 (15%)	1.2 (0.5-2.6)	
Second	114 (33%)	1.4 (0.6-3.2)	
Primigravida	151 (44%)	1.0 (0.4-2.5)	

Also working females had more knowledge compared to those females who were housewives (p value 0.01).

A highly significant association (p value 0.002) was observed between the parturients' knowledge regarding epidural analgesia and regular visits to their obstetricians during pregnancy (Table 3).

Discussion

Our study showed 76% parturient to have had heard of EA, as a labor pain relieving method. This is comparable to results of surveys conducted in U.K.8 The reason for this high proportion of awareness regarding EA can be attributed to the high level of educated females coming to the hospital for delivery. Ample evidence suggests that education enhances women's awareness and their ability to process and seek information.11 Occupation also has a strong impact on raising the awareness of the individual and to modify one-self according to the current trends.5 Similar results have been shown by our study that 88% of the working females had knowledge regarding EA.

Although a large number of our study participants knew about epidural analgesia as a pain relief method, a small proportion of them availed it. Many misconceptions and fears associated with EA use were prevalent. Most of the females were of the opinion that EA results in permanent backache, has a detrimental effect on the baby, prolongs labor and ends up in cesarean section or instrument delivery. Studies conducted even in developed countries have shown, similar misconceptions related to EA.5,8,12

Literature shows that information leaflets and the antenatal education classes are the main source of knowledge on EA for the parturients.5 However, our study has shown that the main source of information for the study participants were friends or relatives and obstetricians. This can be attributed to our cultural practices as majority of the females feel comfortable to discuss personal matters with friends while doctors have a strong influence over the decision making in health seeking practices. However, it was beyond the scope of this study to assess the information provided to the pregnant females by the obstetricians although a high proportion had regularly visited their obstetricians during pregnancy. Only 14% attended the antenatal classes. This highlights the important role of obstetricians disseminating appropriate and accurate knowledge regarding EA and eliminating the fears an misconceptions of pregnant females to its utilization. This study reveals the fears and misconceptions of our women with regard to labour analgesia and provides information on areas where interventions can be done to increase the epidural acceptance rate. However, the results of our study cannot be generalized as it was conducted in only one centre providing epidural analgesia for labor and most of the study participants were educated and working females.

Recommendations

Information leaflets on application of EA fpr labour can be formulated and distributed among the females coming for antenatal checkups. A collaborative approach between anesthetists and obstetricians to disseminate the appropriate knowledge regarding EA will be helpful.

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