

Knowledge and awareness among antenatal women in labour analgesia in a medical college in a semi-urban area in south Karnataka

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Abstract

Objectives: Labour pain is one of the most intense pain that majority of women will endure during their lifetime. Concerns about pain in labor remain a topic of concern, and its popularity gets more common day by day as more women become aware of their rights to achieve a better quality of care during labor. There are various non-pharmacologic (transcutaneous electrical nerve stimulation, hydrotherapy, intradermal water injections and acupuncture) and pharmacologic treatments (nitrous oxide, opioids and regional analgesia techniques: spinal, epidural and combined epidural analgesia) available today. Among these, epidural analgesia offers the most effective form of pain relief and is considered to be the gold standard of labor analgesia. However epidural analgesia has not been fully accepted and is not routinely practised in most of the centres in developing countries despite many advantages of this technique. Number of patients who demand labour analgesia is remarkably low in our hospital although the service is available. The aim of this study was to find out the awareness and attitude of pregnant Indian women attending antenatal clinic of our hospital towards labour analgesia. **Method:** A cross-sectional descriptive study was done among one hundred and sixty consecutive women attending antenatal clinic of our hospital and willing to participate in the study were included in the survey; they were interviewed using a questionnaire that determined their knowledge of and attitudes regarding labour analgesia. The study was conducted in the Department of Obstetrics and Gynaecology at Yenepoya Medical College, Mangalore, Dakshina Kannada District. **Results:** Most of the patients (78%) had an idea of labor analgesia and 70% the participants expressed their willingness for labour analgesia. Educational status of women did not have influence on knowledge about labour analgesia significantly. Women those who expected moderate and severe pain had statistically significant knowledge about labour analgesia than those who expected mild pain in present delivery **Conclusion:** Most of the Indian parturients still suffer from agony of labour pains due to lack of awareness and adequate knowledge. The awareness level needs to be improved about the availability of the labour analgesia service, as majority of them is keen to listen to the information provided. The involvement of obstetricians is crucial in this education program.

Key Words: Labour analgesia, lack of adequate knowledge, acceptance.

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Delivery is a natural phenomenon accompanied with pain. Women's experience of pain during labour varies greatly. Some women feel little pain while others feel extremely distressing pain during labour. A woman's position in labour, mobility, fear and anxiety may have an influence on severity of pain. Pain originates from different sites during first and second stage of labour. In the first stage, pain due to cervical dilatation is transmitted via spinal nerves T10-L1. Labour pain can be referred to the abdominal wall, low back, buttock and thighs. In second stage of labour, pain occurs from distension of the vagina, perineum, and pelvic floor. Pain is transmitted via the pudendal nerves, entering the spinal

INTRODUCTION

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cord via nerve roots S2-S4. Woman also experiences rectal pressure and an urge to push during second stage¹. In spite of availability of various methods, most of the Indian parturients still suffer from agony of labour pains due to lack of awareness. The awareness level needs to be improved about the availability of the labour analgesia service, as majority of them is keen to listen to the information provided. The involvement of obstetricians is crucial in this education program². Epidural analgesia is the technique capable of relieving labour pain satisfactorily and is the most effective method for restoration of normal uterine activity. Epidural analgesia by relieving labour pain decreases blood catecholamine levels and significantly increases intervillous blood flow in healthy parturient. However the epidural labour analgesia (ELA) has not been fully accepted and is not routinely practised in many centres in the developing countries. Patients do not demand for it and the obstetricians are not keen to routinely practise it for several reasons. The important reasons are paucity of qualified anaesthesiologists, and budgetary constraints. The patient load always outweighs the available resources in the developing countries and many centres still lack sophisticated equipments, such as infusion pumps and devices for patient-controlled epidural analgesia (PCEA)³.

MATERIAL AND METHODS

Pregnant women attending antenatal outpatient department and the inpatients were included in the study. Women who were planned for elective caesarean were excluded from the study. After getting consent from the pregnant women, they were personally interviewed using structured questionnaire. Proforma consisted of socio demographic characteristics, opinion about intensity of labour pain, knowledge about methods of pain relief and source of information about pain relief. In case of multi gravida, time duration for last delivery, the amount of pain experienced in previous delivery, usage of any pain relief during labour were collected. Other factors such as thereason for not opting for labour analgesia were also collected. Results are reported in percentages. Socio demographic factors such as age, religion, educational status, order of pregnancy, income, occupation of the women were analyzed for their influence on awareness of labour analgesia. Delivery factors such as amount of pain expected in present delivery, amount of pain experienced in previous delivery, time duration of previous delivery were also analyzed for influence on acquiring knowledge on labour analgesia. Chi square test was used to assess various factors influencing knowledge on labour analgesia. P value <0.05 was considered statistically significant.

RESULTS

Table 1:

Characteristics	Distribution of the study participants	
	Number	Percentage
Age groups (in years)		
18-30	102/160	64%
31-40	50/160	31%
>40	8	5%
Religion		
Muslim	120/160	75%
Hindu	36/160	22.5%
Christians	4	2.5%
Others	0	0%
Education status		
No education	17	10.7%
Primary	89	55.6%
Secondary	48	30%
Undergraduate	5	3%
Post graduate	1	0.7%
Occupation		
Unemployed/Housewife	137	86%
Small business	19	12%
Professional	4	2%
Parity		
Primiparous	58/160	36.3%
Multiparous	102/160	63.7%
Previous LSCS		
Yes	37/102	36.2%
No	65/102	63.8%

Table 2:

	number	%
Awareness of labour analgesia		
Yes	125	78%
No	35	22%
Severity of pain expected in present delivery		
Mild	18/160	11%
moderate	63/160	40%
Severe	79/160	49%
Duration of labour in last delivery		
< 4 hours	13/102	13%
4 - 12 hours	44/102	43%
12 - 24 hours	41/102	40%
>24 hours	4/102	4%
Severity of pain during previous delivery		
Mild	31/102	30%
Moderate	31/102	30%
Severe	40/102	40%

Most of the patients were Muslims (75%), homemakers or unemployed (86%). The educational status of the study population showed that 17 out of 160 were uneducated while the rest were educated. However only 48 women among 160 have completed their secondary education. 36% women were primis and the rest 63%, i.e. 102 women were multiparous. 37 women out of 102 women had previous LSCS. Severe excruciating pain was experienced by around 50% of the patient out of which most of them were primiparas. In case of the multiparas,

around 40 women had severe pain in the previous pregnancy while the rest, around 60% women had mild to moderate pain in the previous pregnancy.

Table 3:

Desire for labor analgesia		
Yes	112	70%
No	43	27%
No response	5	3%
Concerns for labor analgesia		
Baby may be affected	58	36%
Contractions may be weakened	40	25%
Inability to push or use lower part	19	12%
May lead to C/S or instrument use	16	10%
Method may not work	24	15%
Others	3	2%

The labour pains in their previous pregnancy lasted between 4-12 hours in 43% women and 12-24hours in 40% women. 17 women among the 102 multiparous women had labour pains either <4hrs or >24hrs. It was surprising to note that 70 % of the women were willing for labour analgesia when compared to the educational status of the women included in the study. However only 3% women didn't have any opinion of their own and would agree if the spouse agrees. This clearly indicates the lack of adequate knowledge regarding the procedures and the complications of labour analgesia. On analysing various socio demographic factors, age, religion, educational status of women did not have influence on knowledge about labour analgesia significantly. On analysing order of pregnancy, multigravida had a better knowledge than primigravida (χ^2 value 4.17; p value 0.041*). On analysing delivery related factors, women those who expected moderate and severe pain had statistically significant knowledge about labour analgesia than those who expected mild pain in present delivery (χ^2 value 7.94; p value 0.047*). Other factors like duration of labour in previous delivery and severity of pain in previous delivery did not have significant influence on knowledge about labour analgesia

DISCUSSION

Inspite of the facilities available in the place of study and the desire of the women for labor analgesia, majority of women do not opt for labour analgesia due to misconceptions like complications to the baby, more chances of instrumental delivery and increased morbidity chances of the mother. In a study done by Minhas, M. R. *et al.* it is found the awareness of epidural analgesia in the majority of the pregnant women. However, only a small proportion was availing this service, due to fears and misconceptions. Another descriptive study by James, J., *et al.* revealed that there is sufficient awareness that labor is painful, and there are agents to relieve pain during labor. However, there is a lack of knowledge about the

need for labor pain relief, the various types of pain relief methods along with advantages and disadvantages. However in a study conducted by William WK, the women showed poor general awareness of pregnant women towards the proper role of epidural analgesia in labor, leading to a low patient demand for such services¹⁴. In his survey, only 994 (47%) of antenatal patients reported having been exposed to the concept of epidural analgesia in labor. This study also revealed that the leading cause of a low patient demand for epidural analgesia in labor is poor general awareness of pregnant women about the proper role of epidural analgesia and lack of adequate resources to meet the demand. Similarly, another study in the Indian women by Barakzai, A. *et al.* found that there is poor general awareness of women about the proper role of epidural analgesia during labor, which makes a low patient demand for such analgesic services¹⁶. That study also showed that less than half of the women were aware of labor pain relief methods, among them only 12 (9.1%) had knowledge about epidural analgesia. The women's upbringing, religion, and culture largely influence the attitude towards the pain relief in labor. The results of Barakzai, A. *et al.* study were comparable to the study conducted in Nigeria, whose findings showed that out of 1000 respondents, only 271 were aware that labor pain could be reduced [9]. Of those, 80% of the women had an awareness of labor analgesia about the opioids, but only 10% and 14% of them were aware of epidural and inhalation analgesic respectively.

CONCLUSION

Most women were aware about the labour analgesia. But they preferred to bear the labour pains to labor analgesia due to the misconceptions which clearly implies the lack of adequate knowledge of labour analgesia. Most of the source of the knowledge of pregnant women were their friends and family. Hence the antenatal women should be educated about the need and benefit of pain relief and the available service during the antenatal visits. Monthly classes can also be held by the Anaesthetist, Obstetrician and also the Paediatrician so that the women and family get convinced that the mother and the baby can be safe after using labour analgesia. The knowledge of pregnant women may also be improved by the provision of information leaflets, manuals, web-sites and childbirth preparation classes. We conclude that practice and quality of epidural analgesia could only be improved by provision of standardized labor analgesia information at an appropriate time in their pregnancy. This may benefit pregnant women by the practice of mutual decision-making; which may prevent women from making a difficult choice of CS in order to avoid fear of painful labor.

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