

## Barriers for labour analgesia in South India - Knowledge and attitude of relevant stakeholders: A hospital-based cross-sectional study

### INTRODUCTION

Labour pain is both exciting and painful for every woman. Various methods are available to alleviate this pain and help the woman to remember the thrilling moments of her life. A study shows that in India, the average incidence and practice of labour analgesia is only 11%.<sup>[1]</sup> The dominant question is how many of the Indian women have a pleasant experience of labour as compared to their western counterparts. The main objective of this study was to assess the knowledge and attitude of pregnant women, interns, obstetricians and anaesthesiologists about labour analgesia and to identify the barriers for widespread utilisation of labour analgesia in South India.<sup>[2]</sup>

### METHODS

This was a cross-sectional study conducted in a tertiary care teaching hospital. After obtaining the Institution Ethical Committee approval, all the relevant stakeholders in the provision or utilisation of labour analgesia were included in the study. The pregnant women were selected by simple random sampling and all the available obstetricians, women, interneers and anaesthesiologists were included in the study. Since the objectives are exploratory in nature, no quantitative assessment of sample size was done. Informed written consent was obtained from all the participants.

A standardised and validated questionnaire was prepared after face validity, content validity, item distribution analysis and pre-testing. It was then translated into the local language and used for data collection. A total of 100 pregnant women, thirty lady interneers, 21 obstetricians, and 25 anaesthesiologists participated in the study.

Various knowledge and attitude-related parameters such as perceived severity, nature of labour pain,

methods of labour analgesia and perceptions regarding labour analgesia were taken as primary outcome parameters. Practise-related parameters including availing of labour analgesia services in the previous pregnancies and their perceptions about the same were also assessed. All the parameters were presented as frequency and percentages. The data were also presented in appropriate graphs such as box and whisker plots, pie charts and bar charts. No inferential statistical analysis was undertaken. Hence, no statistical significance test was used in the study. IBM SPSS version 21 and Microsoft Excel 2010 (Armonk, NY: IBM Corp.) were used for statistical analysis.

### RESULTS

The majority (80%) of the antenatal women felt that the labour pain is the worst possible pain and nothing can be done about it. Only 16.7% of interneers and 14% of pregnant women were aware of labour analgesia [Figure 1]. Majority of the women said, if there is a safe and effective method of pain relief available, they would opt for it. This proportion dropped to 55% when it was mentioned that the cost may go up by 30%–40%. There were conflicting opinions from the obstetricians [Figure 2]. Ninety-five percent of them felt that labour analgesia could improve the quality of childbirth and majority of them strongly believed that it may prolong the second or third stage of labour (81%) and may lead to forceps delivery (66.7%). Longer time required for anaesthesiologists and the cost was felt as main barriers by 66.7% and 71.4% of the obstetricians. While 90.4% of obstetricians agreed that labour epidural does not affect the baby, 4.8% said labour

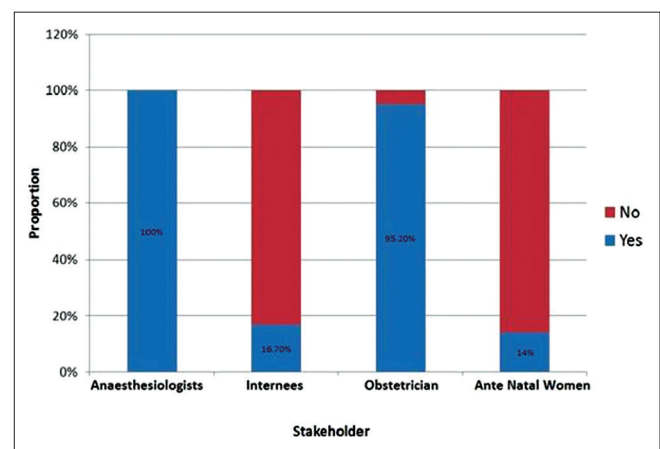


Figure 1: Awareness of labour analgesia

How do you rate the following statements					
	Strongly agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)	Don't know (%)
a. Labour analgesia could improve quality of assisting delivery?	4.80 (1/21)	95.20 (20/21)	0	0	0
b. Labour analgesia could prolong first stage/second stage/ third stage of labour	14.3 (3/21)	81 (17/21)	4.8 (1/21)	0	0
c. Labour analgesia may adversely affect foetus/baby	0	4.8 (1/21)	90.4 (19/21)	0	4.8 (1/21)
d. Do you believe labour analgesia mostly leads to forceps delivery?	9.5 (2/21)	66.7 (14/21)	19 (4/21)	0	4.8 (1/21)
e. Requirement of anaesthesiologists to stay continuously for 5-6 hrs. by bed side is a major factor responsible for non-popularity of labour analgesia?	66.7 (14/21)	19 (4/21)	4.8 (1/21)	9.5 (2/21)	0
f. Additional cost for anaesthesiologists is a major factor responsible for non-popularity of labour analgesia?	71.4 (15/21)	19 (4/21)	9.5 (2/21)	0	0
g. Labour analgesia is not suitable for Indian scenario?	4.8 (1/21)	14.3 (3/21)	61.9 (13/21)	14.3 (3/21)	4.8 (1/21)

Figure 2: Obstetrician's perspective

epidural affects the foetus and another 4.8% said that they did not know whether it affects the foetus or not. Only about 20% of them felt that labour analgesia is not suitable for the Indian scenario.

## DISCUSSION

In Tamil Nadu, an average of Rs. 50,000 will be the cost for a caesarean section in a private hospital. Starting from epidural catheter and other labour analgesia-related drugs as well as anaesthesiologist service cost, will be around Rs. 15,000. This will be 30% of the total cost of Rs. 50,000; 'practical costing' is the consideration.

Several retrospective studies<sup>[3]</sup> have consistently demonstrated an association between epidural analgesia and increased durations of the second stages of labour, but a few randomised, prospective studies<sup>[4]</sup> could not find any significant relation regarding the effects of epidural analgesia on the duration of labour as compared to non-epidural analgesia. Prolonged labour seems to occur more frequently when a higher dose of local anaesthetic agent is used. With low dose/walking epidural, the issue of prolonged labour does not arise.<sup>[5,6]</sup> One-third of women in the United Kingdom and 60% of women in the United States opt for labour epidural analgesia for childbirth. In India, labour epidural has not been fully accepted

and is not routinely practised in most of the centres as patients do not demand it and obstetricians do not practise it for several reasons. Additional cost for the anaesthesiologist, need of the anaesthesiologist to stay for 5–6 h, lack of awareness among pregnant woman, doubts about efficacy and safety among obstetricians, lack of proper training and continuing medical education programs for obstetricians regarding labour analgesia, budgetary constraints, heavy patient load outweighing the available resources, especially in government hospitals and lack of sophisticated instruments such as infusion pumps and devices are the various reasons postulated.

In a study by Shidhaye RV *et al.*, 98.48% of women irrespective of age, education level, socioeconomic status did not have any information about labour analgesia. In our study, 86% were unaware of labour analgesia.<sup>[7]</sup> While the incidence of practising labour analgesia is very low (11%), most of this is mainly derived from urban areas with minimal contribution (0.8%) from government sector. This shows almost negligible practise in rural areas citing poor infrastructural, financial and lack of experienced anaesthesiologists as reasons. Major incidence (10.2%) of labour analgesia in urban private sector indicates a slight popularity among city-based obstetricians.

Obstetricians doubt the safety and efficacy of labour epidural because majority of them wrongly believe that labour analgesia is associated with increased caesarean section rate, increased instrumental delivery, prolongation of all stages of labour and delayed pushing, all of which may affect the foetus.<sup>[8]</sup> Systematic trials conducted by the American Congress of Obstetricians and Gynaecologists (ACOG) and the American Society of Anesthesiologists published in Cochrane Database resolved these misconceptions. These trials reveal that there is no direct relationship between epidural and increased caesarean section. In addition, introduction of low-dose epidural infusion was associated with negligible incidence of instrumental vaginal delivery, and there is no prolongation of any stage of labour. Delayed pushing has been advocated in parturient under neuraxial blockade. The Pushing Early or Pushing Late with Epidural study also supported delayed pushing for a better outcome.<sup>[9]</sup> The majority of the obstetricians were not taught labour analgesia during their training programme and their practical exposure to the service was limited. In our study, only 18% have conducted deliveries under labour epidural, and 0% had obstetric analgesia in

their teaching schedule. The respondents who were satisfied (13.6%) with their teaching schedule were incidentally all foreign trained (MRCOG) consultants in private practise and also had the maximum practical exposure. This highlighted the inherent deficiencies in teaching curriculum and practical exposure in Indian medical institutions as compared to Western standards. Education regarding epidural analgesia would best be provided by anaesthesiologists in collaboration with obstetricians for undergraduates, interneers, postgraduates and paramedical students. Negative perceptions about safety among obstetricians, cost and requirement of longer time required for anaesthesiologists were identified as the important barriers. Therefore, it highlights the misconceptions of obstetricians about labour analgesia. It has clearly documented the role of obstetricians for the popularity of labour analgesia.

## CONCLUSION

The knowledge about labour analgesia is very poor among antenatal women and medical students. The study highlights the undiagnosed burden of agony of labour pains due to lack of awareness. ACOG guidelines 2015 also reiterate that seeking labour analgesia is the right of every woman and it's the duty of obstetricians and anaesthesiologists to fulfil their dream of painless delivery.

'Delivery of the infant into the arms of a conscious and pain-free mother is one of the most exciting and rewarding moments in medicine' - Donald D. Moir (father of labour analgesia).

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## Conflicts of interest

There are no conflicts of interest.

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