**RESEARCH ARTICLE**

# Patient profile and unmet needs of labour analgesia in the parturients undergo caesarean delivery on maternal request

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## ABSTRACT

**Objective:** The present study was aimed at exploring the patient profile and the unmet needs of labour analgesia in relation to caesarean delivery on maternal request (CDMR) as a reason for it. **Methodology:** The departmental electronic database was searched for all the CDMR cases and was included. The anaesthetic management chart, pre-anaesthetic assessment chart, verbal interview records were reviewed for the study to complete the data as far as possible. Data were analyzed as percentage and mean and standard deviation as applicable using INSTAT software. **Results:** There were 38 (2.64%) CDMR among the 1437 LSCS evaluated. Twenty four out of 38 (63.16%) of the patients were primigravida. 57.89% of CDMR had reason related to pain, fear and anxiety. Medical comorbidity was associated and probably contributed as a reason for choosing CDMR in association with pain in 48.57% cases. 5.26% had received antenatal counselling for painless labour and 23.68% had prior knowledge of labour analgesia while only 2.63% asked voluntarily for it. **Conclusion:** Lack of knowledge about painless delivery & facilities, fear, anxiety and previous bad experience are major reason for choosing "knife" than normal route of delivery. Higher education, parturients related to health care services and primigravida are more inclined to CDMR and needs to be targeted both for labour analgesia and for psychological counselling.

**Keywords:** Caesarean delivery on maternal request, labour analgesia, labour pain, fear and anxiety, labour analgesia counselling

Evolving to becoming a mother from a lady is the most sought after, respected and desired invaluable gift for a lady. It was natural (vaginal delivery) till the use of caesarean section. However, this natural gift is associated with one of the most excruciating pain (labour pain) that a human can experience. This in turn has lead to anxiety and fear in the mind of the expectant mothers. Though in the absence of maternal or foetal indications for caesarean delivery, a plan for vaginal delivery is safe and appropriate and should be recommended [1, 2]. It is not unusual to find parturients approaching for caesarean delivery without

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maternal and foetal indications and this category of caesarean sections (CS) are known as caesarean delivery on maternal request (CDMR) [1,3]. This is to some extent because of the wider availability and acceptability of relatively safe CS. The belief that elective caesarean is safer than vaginal delivery is also not uncommon and many of these expectant mothers request for CS to not only get rid of labour pain, but also from the belief that it will not lead to pelvic floor injury (that may be caused by vaginal delivery) as well as sexual dysfunction. Thus, the aim of the present study is to exploring the patient profile and the unmet needs of labour analgesia in relation to CDMR.

**Materials and Methods**

This retrospective study was conducted by searching departmental electronic database for all the CS done in last 2 years, both electively as well as in emergency and the performed CDMR were sorted out. The anaesthetic management chart, pre-anaesthetic assessment chart and data from verbal interview record by resident (which was a part of brief pre anaesthetic check-up done before emergency anaesthesia) of the parturients were evaluated. A few of the parturients were also contacted after anaesthesia. The data were completed as far as possible with regards to gravid, parity, medical co-morbidity, reason foropting CS over vaginal delivery, urgency grade, education status (high school) and specific questions related to labour analgesia as mentioned in the table 1. Data thus collected were analyzed as percentage and mean and standard deviation as applicable using INSTAT software (GraphPad software, Inc, La Zolla, CA, USA).

**Table 1: Showing the direct pain related questions. Answers were noted as yes or no and term used like can't bear, don't want to bear, scared of, feared of pain etc.**

| Direct Questions |
|---|
| Q. Why you want caesarean not vaginal delivery? Is it related to labour pain? |
| Q. Do you know that delivery can be nearly painless? |
| Q. Was painless delivery was discussed with you during antenatal period by anaesthesiologist or obstetricians? |

**Results and Observations**

The departmental electronic database review revealed 1437 LSCS performed in last 2 years, out of which 38 (2.64%) were CDMR. 63.16% (24 out of 38) of these parturients were primigravida. Nearly all (94.74%) cases were performed during emergency hours. Fear of pain, inability to bear pain in the early stages of labour, previous bad experience with labour pain and anxiety were given as a reason behind 57.89% CDMR. Medical comorbidity was associated and probably contributed as a reason for choosing CDMR in association with pain for 48.57% cases. Less than a quarter (23.68%) of the parturients who opted for CDMR had prior knowledge of labour analgesia and only 5.26% of them got antenatal counselling for painless labour. On the other hand, only one parturients (2.63%) asked voluntarily for labour analgesia. The results are summarized in Table 2.

**Discussion**

Nearly all the women going through reproductive age undergo the excruciating painful labour to achieve the happiness of being a mother. With the incorporation of safe motherhood to improve maternal health in the millennium development goals and different maternal and child health program implementation, government and different organizations are trying to make more and more institutionalized deliveries [4, 5]. Unfortunately, the pain aspect of the expecting mothers is hardly taken in to account even for the deliveries done in referral centres [6]. This in turn has kept the parturients still in the misery leading to bad experience among previously delivered mothers and fear and anxiety in new expectant mothers. This is evident by the fact that 87% parturients expects that labour is painful and 67% of women strongly believe that it is severe and excruciating [7]. Though many of the expecting mothers still believe in "no pain no gain" and labour pain is natural, majority (51%) of parturients believe

that labour pain should be relieved [8]. The CS rate is increasing day by day and is one of the most commonly performed surgeries on human [9]. As the parturients doesn't get the pain of delivery during CS; experience and disseminated peer information of this fact in the face of unbearable impending labour pain, more and more expectant mothers choose to undergo CDMR than going for normal vaginal delivery.

**Table 2: Summary of the parameters evaluated and their results expressed in numbers and as percentages except (*) are in mean and 95% confidence limit. # indicates, there were overlapping of reasons. (N=38)**

| Parameters | Results (%) |
|---|---|
| Age* | 28.3(26.74 - 29.94) |
| Gravida* | 1.73 (1.32 – 2.14) |
| Primi | 24 (63.16) |
| Multi | 14 (36.84) |
| Parity* | 0.63 (0.27 – 0.98) |
| CS done as | |
| Elective | 2 (5.26) |
| Emergency | 36 (94.74) |
| Urgency grade* | 3.68 (3.51 - 3.85) |
| 1 | 0 |
| 2 | 1 (2.63) |
| 3 | 10 (26.31) |
| 4 | 27 (71.06) |
| Presentation | |
| In labour | 6 (15.79) |
| Before labour | 32 (84.21) |
| Pain related reasons# for CDMR---------- | 22 (57.89) |
| I can't bear the pain anymore---------- | 6 (27.27) |
| I don't want to bear the pain---------- | 9 (40.91) |
| Fear and anxiety of Pain---------- | 3 (13.67) |
| Previous bad experience---------- | 7 (31.82) |
| Education up to high school or more | 28 (73.68) |
| Related to health related profession | 7 (18.42) |
| Awareness about painless vaginal delivery | 9 (23.68) |
| Labour analgesia counselling during antenatal period | 2 (5.26) |

It has been more than one and a half century since the use of chloroform by John Snow for labour analgesia for the delivery of Queen Victoria's eighth child Leopold in 1953[10], yet labour analgesia is hardly in practice in India and developing countries. Kapadia et al. found that 95% of the women attending antenatal clinic were totally unaware about labour analgesia [7]. Though, present study shows slightly better scene of 76.32% being unaware, the distressing part is that none of the Indian parturients asked voluntarily for labour analgesia. The only one parturients who asked voluntarily for labour analgesia was a foreigner.

As the present study is predominantly retrospective, the exact number of booked and unbooked cases was not possible to determine but the finding that 94.74% women undergoing CDMR had not received antenatal counselling of labour analgesia clearly indicates that even booked cases were not counselled. 5.26% parturients who received counselling were actually hospital staff.

Most of the CDMR cases (63.16%) were primigravida and with relatively educated which indirectly indicates that the young generation mothers are becoming more and more inclined to it and do not want to bear the pain. 7 out of 14 (50%) multigravida parturients said that they have a bad experience with previous labour pain and don't want to bear the pain once again. This finding reconfirms the finding of Green et al. in which they found that multiparous women who opted for CDMR were having previous traumatic vaginal delivery and painful experience [11]. The interesting and elucidating part is that they found that when a designated multidisciplinary care pathway incorporating education and support was provided all these multiparous women achieved a normal delivery. Seven out of 38 (15.79%) of parturients who had undergone CDMR were from a family of health care related services with regard to occupation and

73.68% parturients have attended high school education or higher.

In present study, though the majority (94.73%) of the parturients underwent CDMR during emergency hours, they had a favourable outcome. This may be explained by the urgency grade of CS performed [12]. None of the CS was in urgency grade 1 and 97.37% were in 3 and 4. The reason behind this the use of emergency OT was also non availability of daily routine OT in the study centre and a few of the parturients presented in early labour. So, this finding may not be reproducible in a centre where daily routine OT for obstetrics is available.

CDMR is associated with a higher risk of neonatal respiratory morbidity. Adverse consequences of CDMR may be manifested only in future pregnancies. Repeated caesarean deliveries have higher rates of operative complications, placental abnormalities such as placenta previa and accreta, and consequent gravid hysterectomy [13].The present study did not find any immediate neonatal respiratory morbidity and post CDMR complications were not in the goal of this study. This is probably because almost all parturients were near term, term or post dated with regard to gestational period.

Present study has limitations with regard to data collection and predominant retrospective nature. As prospective data collected were minimal and data records in the above sources were deficient in one or another aspect, the results based on this near complete data is expected to be very nearly similar to the actual scenario. Though it is a limitation, the conclusion arrived at would unlikely have been much different if data were complete.

## Conclusion

Expectant mothers are having lack of knowledge on painless delivery and therefore resorting to choosing the “knife” than normal route of delivery. Antenatal counselling is expected to play a good role in resolving this gap and issue. Higher education, parturients from health care related services and primigravida are more inclined to it and need to be targeted both for labour analgesia and psychological counselling. Further prospective study will be required to exactly quantify the magnitude of the problem.

**Conflict of interest:** None. **Disclaimer:** Nil.

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