

# Labour Analgesia and Maternal Outcomes

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**Abstract:** *Introduction:* Epidural analgesia is the most commonly used labour analgesia but its maternal obstetric outcomes are widely disputed. *Aim:* To analyse effect of labour analgesia on maternal outcomes. *Material & Methods:* This single centre study analysed the maternal outcomes of lumbar analgesia. 287 low-risk pregnant women was included in the study, 137 women received epidural analgesia for relief of labour pain in the study group and 150 women served as control. Maternal outcomes that were studied included Atonic PPH, MROP, Lateral wall laceration, etc. *Results:* Out of the 13.9% who developed complications in the epidural group, 4.4% had atonic PPH whereas out of the 11.3% who developed complications in the non-epidural group, 2% had atonic PPH but this was found to be statistically insignificant. *Conclusion:* Epidural labour analgesia was found to cause no adverse maternal obstetric outcomes.

**Keywords:** Labour analgesia, Epidural, Atonic PPH

## 1. Introduction

History of labour analgesia, over the years has seen various methods and techniques to achieve optimum pain relief<sup>1</sup>. It has evolved and has now currently peaks at the use of lumbar epidural for labour analgesia<sup>2-4</sup>. Lumbar epidural is now the most common and effectively used labour analgesia. But the effect of labour analgesia on obstetric maternal outcomes has been widely disputed<sup>5</sup>. Hence, this study aims to observe the effects of epidural labour analgesia on maternal outcomes namely atonic PPH, MROP, Lateral vaginal wall lacerations and other outcomes.

## 2. Materials and Methods

This single centre study analysed the maternal outcomes of lumbar analgesia. 287 low-risk pregnant women was included in the study, 137 women received epidural analgesia for relief of labour pain in the study group and 150 women served as control. Maternal outcomes that were studied included Atonic PPH, MROP, Lateral wall laceration, T2 tear, T3 tear. Patients were enrolled in the study after obtaining an informed consent. This was a cross sectional study which compared pregnant women voluntarily receiving epidural and those not receiving any form of analgesia. The groups were age matched.

**Table 1:** Age distribution of groups studied

Age	Epidural (N=137)	Non epidural (N=150)
<20	6.6	4.7
20-29	83.2	88.6
30-40	10.2	6.7
Grand Total	100.0	100.0

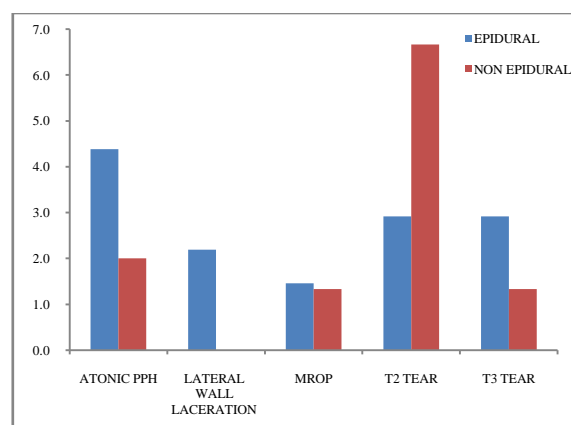
## 3. Results

Out of the 137 women studied in the epidural group, 118 (86.1%) did not have any complications whereas 133 (88.7%) women of 150 women studied in the non-epidural group did not have any maternal complications. Out of the

13.9% (n=19) who developed complications in the epidural group, 4.4% (n=6) had atonic PPH, 2.9% (n=4) each had T2 tears and T3 tears, whereas the rest was found to have lateral wall laceration of the vagina (2.2%; n=3) and underwent MROP (1.5%; n=2). Out of the 11.3% (n=17) who developed complications in the non-epidural group, 6.7% (n=10) had developed T2 tears, 2% (n=3) had atonic PPH, 1.3% (n=2) each had T3 tears and had to undergo MROP, but no one was found to have lateral wall lacerations. This was found to be statistically not significant (p = 0.941572).

**Table 2:** Distribution of maternal obstetric complications in the groups studied

Maternal obstetric complications	Epidural		Non epidural	
	N	%	N	%
Atonic PPH	6	4.4	3	2.0
MROP	2	1.5	2	1.3
Lateral wall laceration	3	2.2	0	0.0
T2 tear	4	2.9	10	6.7
T3 tear	4	2.9	2	1.3
No complications	118	86.1	133	88.7
Total	137	100	150	100.0



**Figure 1:** Maternal obstetric complications in the groups studied

## 4. Conclusions

This study evaluated the obstetric complication in pregnant women receiving epidural and not receiving any form of

labour analgesia. It was found that the difference in the incidence of atonic PPH, MROP, vaginal wall and perineal lacerations were found to be insignificant. Thus, it can be concluded that epidural labour analgesia does not cause adverse maternal obstetric outcomes.

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