

Epidural Analgesia in Labor – A Service Quality Survey.



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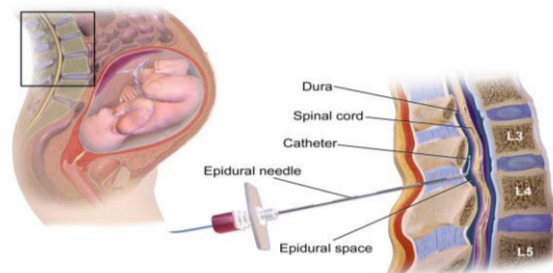
Key message:

A well-functioning epidural analgesia, without any undesirable effects, can significantly influence the mother's satisfaction with the overall care, as well as the experience of childbirth.

Background

Childbirth is one of the most painful experiences a woman can undergo. **The degree of pain experienced, and the quality of pain relief affect patients' satisfaction with the birthing process and may have long-term emotional and psychological effects.**

Continuous epidural analgesia, initiated by combined spinal- epidural (CSE) or by plain epidural technique, is a significant procedure during the labor with specific and potentially serious complications. At Cavan Monaghan Hospital (CMH), we have been providing a 24/7 epidural service for over 20 years.



The aim of this study is to determine **the level of maternal satisfaction and the incidence of complications/adverse effects** after the administration of epidural/CSE analgesia for labor pain over a period of one year. The results of this study will help us improve the quality of the epidural service provided to patients in the maternity ward.

Methodology

Data were collected retrospectively for the year 2020 from review forms, completed by an anaesthesiologist after checking the patients within 1 or 2 days of delivery.

The form contained the following information:

1. Verbal level of satisfaction, from excellent to poor
2. Common complications: nausea, vomiting, pruritus, pyrexia, headache, back pain and photophobia

Results

- Totally, **1352** women delivered at CMH (32.32% nulliparous and 67.68% multiparous) in 2020.
- **450** (33.3% of all birth mothers) patients received Epidural/CSE analgesia during labor.
- Of these 450 patients, only **290** (64%) were seen by an anaesthesiologist on day 1 or 2 after delivery. (Figure 1,2)

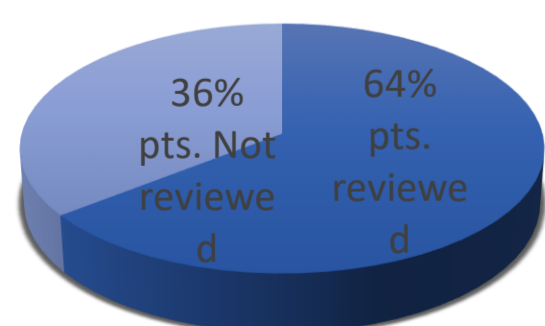


Figure 1

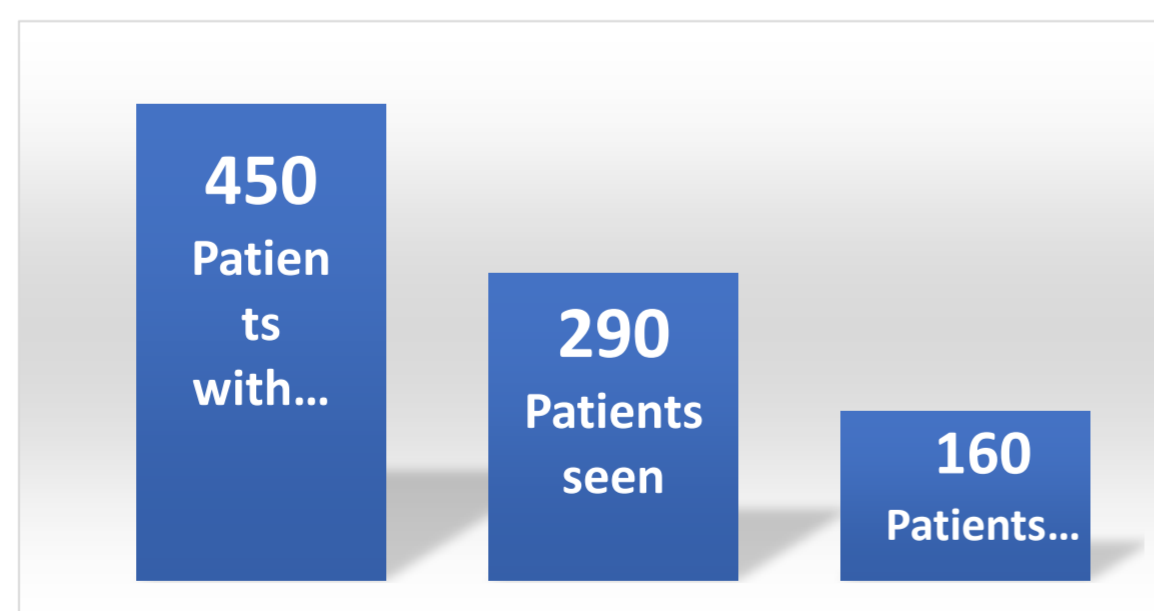


Figure 2

The failure to visit all patients after administering the epidural analgesia was alarming.

The year 2020 had been very problematic due to **the new COVID-19 pandemic**. Probably, this challenge could be one of the reasons for inability to review all patients after administering the epidural analgesia.

Results

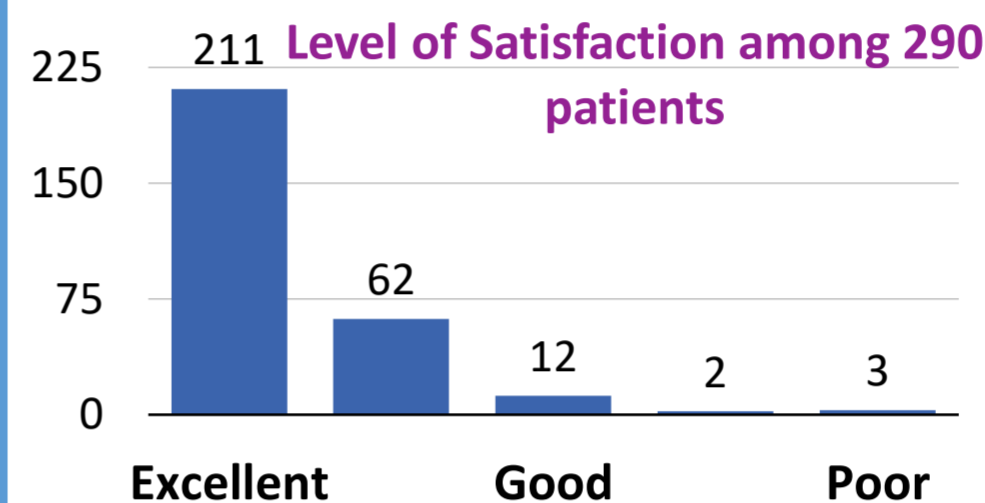


Figure 3.

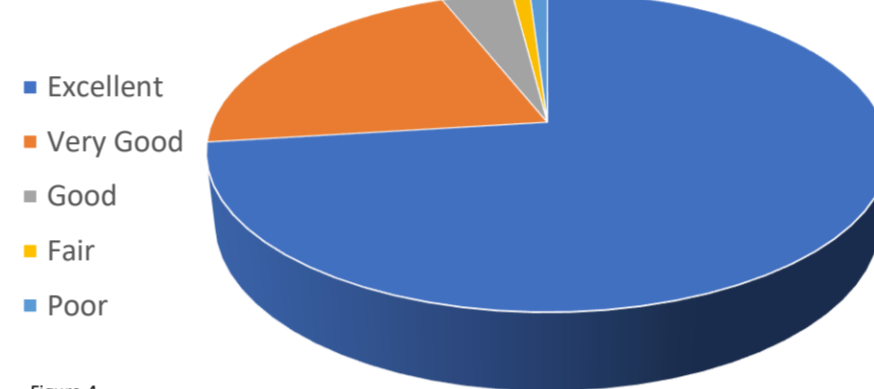


Figure 4.

Pruritus is the most common side effect in this study. It represents 18% of patients. Intrathecal opioids are often used for labor analgesia. Fentanyl is popular and provides rapid pain relief, when combined with local anaesthetics. However, the incidence of pruritus after intrathecal fentanyl is particularly high, ranging from 70% to 100% (5). CSE is associated with more pruritus than low-dose epidural therapy (4).

15 mothers, representing 5% of 290 observed patients, described **headache** post-delivery. However, headache in the early postpartum period is a common symptom reported by up to 39% of women in the first week after childbirth. (2) Only 5 of these 15 women, i.e. 1% of all epidurals, had true PDPH at CMH in 2020. All 5 improved with a standard treatment - blood patch.

Backache was the second most common complication, numbering at 44 (15%). According to the literature, the epidural does not increase the risk of back pain in the early post-partum period and six months after delivery (7). The prevalence of post-partum back pain in epidural analgesia versus non epidural analgesia groups was reported 40.9% versus 40% on day one and 32.2% vs 35.2% after 1 week (6).

The vast majority (over 94%) of all patients monitored were very satisfied with the epidural service at CMH, giving us excellent or very good feedback. Only 17 patients had a good, fair or poor experience of epidural pain relief during childbirth. (Figure 3 &4)

Almost 40% of those followed experienced no complications or side effects. (Figure 5)

Complications/Side Effects

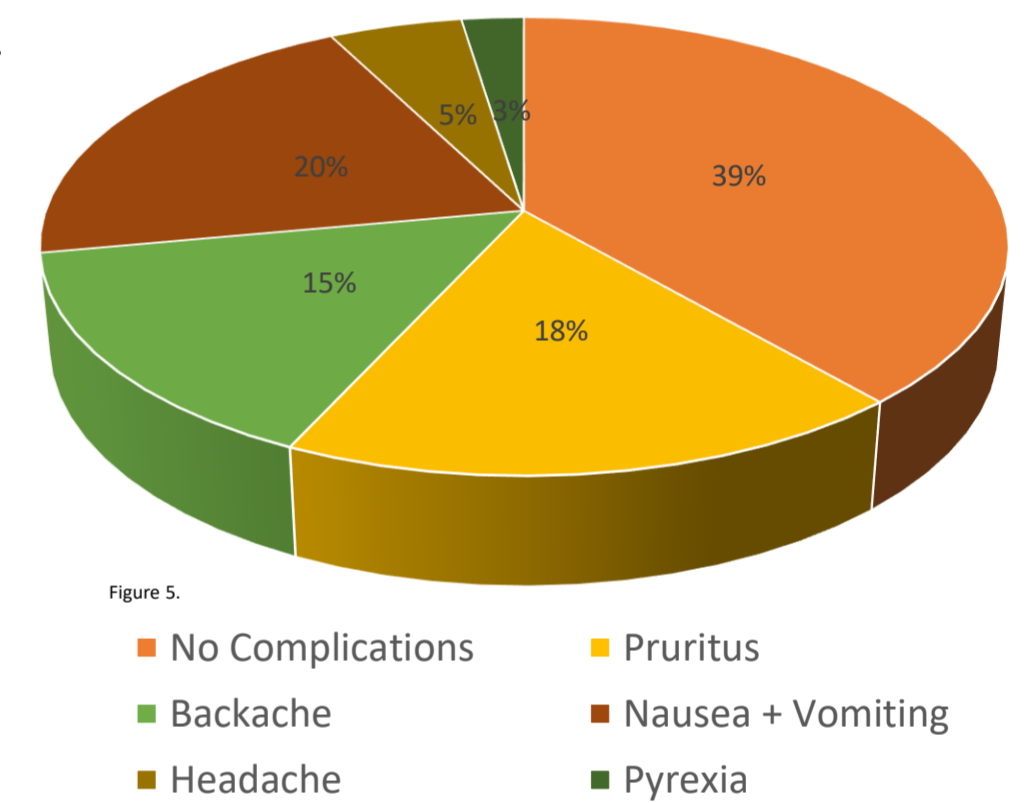


Figure 5.

Conclusion

- A high level of maternal satisfaction was demonstrated in this study of 2020.
- After departmental discussion, **the post-epidural review was delegated to a specialist pain nurse. This reduced the clinician's workload, optimized consistency of patient follow-up, and reduced the potential for bias.**
- As additional recommendations to improve the quality of care, **the updated review form** contains more comprehensive and in-depth data related to the epidural analgesia.

References

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