



Case Report: A Rare Complication of Knotted Epidural Catheter Inserted for Labor Analgesia

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Abstract

We present an uncommon complication of knotted epidural catheter which was inserted for labor analgesia. Adjustment of the catheter length while sitting the epidural proved to be difficult. Common techniques described in the literature were unsuccessful. Post-delivery lumbosacral CT showed the catheter had a coiled tip. The catheter was removed surgically. Excessive traction on a coiled catheter may result in breakage of the catheter. Practitioners should be mindful that such a complication can occur, and that surgical intervention may be warranted.

Keywords: Epidural; Labor analgesia; Anesthesia

Introduction

Epidural analgesia is a common modality employed in many hospitals throughout the world for the patient in labor. Serious complications are rare but can be debilitating to the patient and it is crucial to detect potential problems and to take the appropriate corrective action in a timely fashion.

Case Presentation

A 27-year-old primigravida presented to us at 40 weeks + 9 days of gestation in early labor. She was admitted to the ward for prostin induction, which further needed an amniotomy. At the same time, she was referred to the anesthetic team for epidural analgesia.

The epidural was inserted by a senior medical officer under aseptic technique. It was inserted at the L3/L4 interspace, and the catheter was inserted after feeling a “give” with a loss of resistance syringe filled with air. Catheter insertion was easy and with minimal resistance. Skin-to-space distance was 6.5 cm.

While adjusting the catheter depth, the medical officer noticed it became harder to pull. The senior anesthetist was immediately called to attend. Various techniques were employed to try to dislodge the catheter such as putting the patient in the flexion and extension positions but were unsuccessful. Lateral flexion and rotation were also ineffective. Resistance in the catheter was felt

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Figure 1: Sagittal view CT lumbosacral showing the position of the knotted epidural catheter.

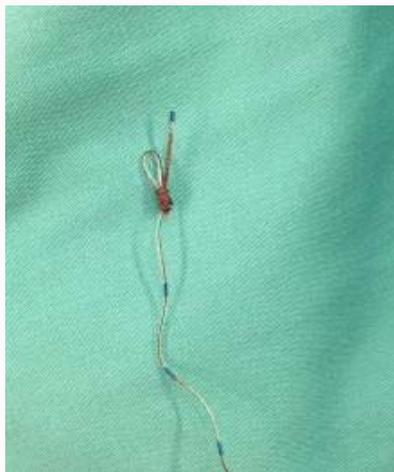


Figure 2: Knotted epidural catheter removed.

when saline was injected.

Upon discussion with the senior anesthetist, it was decided to allow labor to proceed first and would attempt removal again after delivery. Patient had no neurological deficit throughout the process of labor. However, the patient had to undergo emergency caesarean section for poor progress and was put under general anesthesia. After the baby was delivered, patient was put in the lateral position with hip flexion to try to remove the epidural catheter but was also unsuccessful. Patient was then extubated with a plan for further radiological imaging [1,2].

Lumbosacral CT showed the following: Epidural catheter traversing the soft tissue and muscle at the level of L3/4 with its tip coiled lateral to the right L3/4 facet joint between the erector spine and quadrates lumborum muscle (Figure 1).

Patient was then referred to orthopedics for removal of the catheter under GA whereby a knotted epidural catheter was removed successfully (Figure 2).

The patient was well post-operatively with no neurological deficit. She was discharged home the following day with a follow-up appointment at our anesthetic clinic.

Conclusion

In the event of problematic catheter removal, a few maneuvers are recommended on initial period in order to ease the removal. However, should such maneuvers failed, it may be advisable to consider the possibility of catheter knotting that might require surgical intervention for removal. It is advisable to consider radio imaging to identify the exact location of the catheter before further attempt at removal. Excessive force to remove a knotted catheter can cause further complications such as shearing, tearing or catheter snap which make the removal even more difficult.

References

1. Aslanidis T, Fileli A, Pyrgos P. Management and visualization of a kinked epidural catheter. *Hippokratia*. 2010;14(4):294-96.
2. Hippalgaonkar AV, Kudalkar AG, Gaikwad SM, Modak S, Gupta HB, Tendolkar BA. Successful management of a broken epidural catheter. *Saudi J Anaesth*. 2017;11(2):228-31.