

Response letter

Dear Editor:

Thank you very much for your letter and advice on our manuscript. We have addressed the comments raised by the reviewers, and the amendments are highlighted in yellow in the revised manuscript. We hope that the revision is acceptable and look forward to hearing from you soon.

Best regards,

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1. **Question:** Title: The term “difficult extubation” is misleading and wrong. The title “difficult removal of epidural catheter due to knotting” would be more appropriate or a better title would be “A unique method of removal of knotted lumbar epidural catheter: a case report” Background: Too many complications of epidural catheter insertion have been described. It should be short and to the point.

Answer: We changed the title of the manuscript to A unique method for removal of knotted lumbar epidural catheter: a case report.

2. **Question:** Case Report: BMI in a pregnant patient is irrelevant and should not be mentioned.

Answer: The BMI indication that appeared in the case report has been removed.

3. **Question:** The insertion of epidural catheter is not described at all. Till what level was the catheter inserted in the first instance and was it pulled out a little before fixing on the skin. What level was it fixed? Was there any resistance while inserting the catheter or while pulling it out to fix? Was any testing with saline was done to check the patency before fixing the catheter? These criteria must be described. Also, which brand of epidural catheter was used. This is important in case if this script is used for meta-analysis or systematic review. The method for positioning during the removal is described well with diagrams.

Answer: “After removing the spinal needle, the left hand held in place the epidural puncture needle, and the enhanced epidural catheter (MaiChuang Medical, Jiangsu, China) was advanced with the right hand until the 15 cm scale. The epidural puncture needle was retracted using the left hand, ensuring the catheter was retreated outward of skin to the 12 cm scale, leaving the catheter positioned at a length of 5 cm in the epidural cavity. The catheter was smoothly inserted, and no blood or cerebrospinal fluid was observed upon syringe withdrawal. The patency of the catheter was good through the physiological saline test. The exposed end of the catheter was fixed to the patient's back using adhesive tape.”

4. **Question:** Discussion: Do mention the incidence of knotting of epidural catheters (0.0015% by McGregor PJ Letter. Anesthesiology 1990; 73:1293) Also 64,4% of knotting occurred in lumbar regions (Brown RA, Polit VL, Knotting of an epidural catheter: a case report. Can Anaesth Soc J 1979. 26: 142-144) Arrow brand of catheters are known to stretch and break at more times and hence the brand used by the authors should be mentioned.

Answer: We have added the reviewer's suggestions in the corresponding section of the article, as follows: “Occurrence of epidural catheter knotting is rare, with an incidence of 1 in 65,140 catheters and an average of 0.0015% [2] (MR. Peter J. McGregor's Letter to Anesthesiology,

1990. 73(6): p. 1293).” “Catheter knots are more prevalent in the lumbar region than in the thoracic region [6], with 64.4% of catheter knots occurring in the lumbar region [7].” The brand of catheter that we used is indicated in the description section of the case report.

5. **Question:** Do mention whether the method described by the authors for the removal was used earlier by anyone or it was a new method used by them for the first time. If so, did they take the help of orthopaedic colleagues or a special lab? Also, need one more section on either Conclusion or recommendation from the author. Mention that the unique method used was especially helpful if the catheter insertion was paramedian.

Answer: In summary, knotting of the epidural catheter is a rare complication of spinal anesthesia, with limited clinical reports available. The approach for catheter removal must be tailored to the individual circumstances. In our case, a new and previously unreported method of removing the interdural catheter was reported, and it was done without the assistance of an orthopaedic surgeon, and we recommend using the method presented in Figure 2 of this case report, which involves the use of opposite forces to separate the spinal facet joints in a "spiral" manner based on the imaging examination findings. The results indicate that this technique is more effective for catheter removal and can serve as a reference method in challenging catheter removal situations.