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LETTER TO THE EDITOR

Strategies to prevent intravascular placement of epidural catheter

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To the Editor:

We read with great interest the article by Kundra et al. [1] regarding resistance to the insertion of epidural catheter and intravascular placement. It is interesting to note that resistance was felt in a large number of patients in the study (83 out of 120; 69.12%) at insertion length of 2.5 cm during the epidural catheter placement. However, only 7.5% of these patients had intravascular placement, which suggests that this resistance felt by researchers may not be necessarily due to blood vessels. It is also not clear from the article for the reasons for this resistance. In view of this, it is difficult to say that the advancement of catheter more than 2.5 cm, despite resistance may cause intravascular placement, as suggested by researchers. There are at least three studies that demonstrate safe and successful placement of epidural catheter up to 5 cm in length in laboring patients [2]. Though the optimal insertion length of epidural catheter is not conclusive, there should be a balance between successful epidural analgesia and strategies taken to minimize complications [3].

We would also like to point out that there are at least five strategies to prevent intravascular placement of epidural catheter. As per the previous studies, these strategies are; fluid injection before catheter insertion [4], lateral position during the procedure, use of single orifice, wire-embedded catheters [5], and epidural insertion length not more than 6 cm [2]. Recent systematic review by Mhyre et al. [5] published in April 2009 has discussed these strategies in detail for the prevention of intravascular placement of epidural catheter in laboring patients. Though this systematic review did not recommend one particular strategy over another to prevent intravascular placement, more studies support lateral position during the procedure and fluid injection before catheter insertion. Also, there is little evidence to support the practice of a paramedian versus midline approach or using a smaller epidural needle. So it is advisable to use multiple strategies to prevent intravascular placement of the catheter rather than relying on single strategy.

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