Incorrect distance markings on an epidural catheter

Editor—The length at which an epidural catheter is placed within the epidural space affects the risk of post-procedural complications.\textsuperscript{1,2,3} Catheters inserted to a depth of 8 vs 6 cm are more likely to result in i.v. cannulation.\textsuperscript{1} A depth of insertion of 7 vs 5 cm was associated with i.v. location and inadequate analgesia.\textsuperscript{2} On the other hand, catheter insertion of less than 4 cm may be related to a higher rate of displacement, especially in obese patients.\textsuperscript{3} Clearly, knowledge of the catheter length in the epidural space is of prime importance. We report a case of incorrectly positioned distance markings on an epidural catheter inspected at our clinic.

We employed a catheter taken from a teaching set to familiarize us with its recently modified distance markings (Perifix\textsuperscript{®}-Katheter; 1.05 mm outer diameter for use with 16G Tuohy needle; Braun Melsungen, Germany). In keeping with standard practice, this catheter had been added to the set from a stock of regular epidural catheters for clinical use.

Figure 1 shows the results of our measurements. The first marking on this catheter (lower one in the Figure) was at 7 cm. The 10 cm mark was found at 12.4 cm. Three new catheter sets, taken for reference, showed the 10 cm mark at 10.7 cm in accordance with the manufacturer’s specifications (upper catheter in Figure 1).

Defaulted marking on an epidural catheter has not previously been reported. Such defaulted marking should be noted as a potential source of post-procedural complications.

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Fig 1 Default distance markings on a Braun Perifix\textsuperscript{®} catheter for epidural use. Lower: catheter with defaulted markings, 10 cm mark (arrow) at 12.4 cm; upper: catheter with correct markings (at 10.7 cm).