position revealed an unintentional sacral direction of the spinal catheter.

Van Gessel, Forster and Gamulin [4] found that 7% of 20-gauge spinal catheters lay in a caudal direction and no correlation was found between the final sensory level achieved and the position of the catheter tip. The reason for this may have been that this study was performed with patients in the lateral decubitus position. Therefore, if the authors could correlate spread of local anaesthesia and the position of the spinal catheter, this may be of clinical importance.

Sir,—We agree that the intrathecal position of a spinal microcatheter is important and it may affect the outcome of continuous spinal anaesthesia. We have examined the influence of the intrathecal position of 28-gauge spinal catheters, on the time of onset of analgesia and on the dose requirements of local anaesthetic in another study which is now in press [1].

In contrast with large-bore catheters [2] which allow for higher injection speed, we found that intrathecal catheter position had a significant influence on the outcome of continuous spinal anaesthesia. However, our original study was designed to evaluate the effect of position of the patient during lumbar puncture and depth of intrathecal insertion of the catheter on the intrathecal position of a microcatheter. Also, the aim was to evaluate the performance of spinal microcatheters to avoid caudally directed catheter positions which may be associated with maldistribution of local anaesthetic.

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