

Misplacement of an epidural catheter via intervertebral foramen is not rare

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To the editor: Recently, Tsuji et al. [1] reported an interesting case in which an epidural block did not produce any anesthesia, and epidurography showed misplacement of the catheter into the lumbar quadratus muscle. We agree with them that the catheter was threaded into the lumbar quadratus through an intervertebral foramen. We now would like to give a few comments on the importance of epidurography and on the incidence of misplacement of an epidural catheter via intervertebral foramen.

Epidurography is very useful to investigate the cause of failure in continuous epidural block. We perform epidurography by two steps. First, a small amount of iotrolan (0.2–0.5 ml [2]) is injected to take radiographs which show both the course of the inserted catheter and the position of the catheter tip. Then, a few milliliters of the contrast medium is added to determine the spread of the medium in the epidural space.

Misplacement of an epidural catheter via intervertebral foramen is not rare. The incidence of transforaminal escape of an epidural catheter was 6.1% in our 99 chronic pain patients who were treated with continuous epidural block [3]. According to the other investigations performed by Hehre et al. [4], Sánchez et al. [5], and Itoh et al. [6], the incidence was 1.4% in 1780 cases, 6.7% in 90 cases, and 16.4% in 385 cases, respectively.

As Tsuji et al. [1] mentioned in their report, it is important not to push the catheter too far into the epidural space to prevent misplacement of a catheter. According to Bonica [2], a catheter length of 4 cm in the epidural space is quite sufficient. Other means of preventing this failure include avoiding stiff catheters [7], not directing the catheter downward [2], and not inserting a catheter when paresthesia from stimulation of a nerve root is noted [7].

References

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