is not located in the epidural space. The epidural catheter would be removed and either it would be replaced or the patient would receive intravenous patient-controlled analgesia.

We are surprised at the authors' secondary conclusion that failure to achieve sensory block does not necessarily preclude failure of epidural opioid analgesia. It is well recognized that epidural catheters can be misplaced and then found in locations other than in the epidural space. We are aware of only two reliable and practical methods of ascertaining proper epidural position of a catheter: epidurography or demonstration of bilateral sensory and/or motor block after a test injection of an appropriate dose of a local anesthetic. The claim that the results of this latter test can be ignored is a message that is potentially harmful to the patients of the readers of Anesthesiology. We are confident that this was not the intent of Weitz and Drasner.

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Local Anesthetic Test Dose to Predict Effective Epidural Opioid Analgesia: II

To the Editor.—Weitz and Drasner studied a possible correlation between dermatomal spread of anesthesia from epidural injection of 10 ml 1.5% lidocaine to predict subsequent epidural morphine postoperative pain efficacy (2.5 mg plus continuous infusion). Patients were studied in three groups (minimal, moderate, and extensive local anesthesia from the lidocaine dose) including seven (14% of studied) patients, where no clinical evidence of epidural block developed. The type of catheter (single vs multiple-orifice), statistical evaluation of demographic factors, ASA status, and the absolute numbers, means, and standard deviations of dermatomes developing anesthesia were not reported for any group. While a 5-ml pre- and postoperative test dose containing epinephrine was used to "exclude intravenous or intrathecal injection of local anesthetic," in the face of the continuing debate regarding the usefulness of the epinephrine test dose, no exclusion of patients with factors known to mask epinephrine effects (i.e., β-blockade, paracervical) nor monitors or methodology used to evaluate intravascular effects is mentioned.

I would question: (1) the validity in assuming catheter localization to the epidural space in the absence of effects from 10 ml lidocaine; (2) why the 10 ml lidocaine test was not done preoperatively (as 3 ml were injected then anyway) before the effects of pain, general/local anesthesia, and epidural morphine compromised the evaluation of either lidocaine's effects or the opioid analgesia in the postanesthesia care unit, and (3) whether any of the group 2 patients had unilateral effects, indicating possibly paravertebral instead of epidural injection.

The authors noted effective analgesia (VAS < 4) only in patients who developed a block to 16 or greater (maximal effect group). Pain relief was, however, "found" in all seven patients who experienced no lidocaine effects "despite relatively high VAS scores" (indicating significant pain?), and the groups exhibiting minimal and moderate lidocaine effects had similar pain scores. Does this study attest to the frequent ineffectiveness of epidural opioids in general (or this particular dosing regimen), patient tolerance of postoperative pain (and the needlessness of this epidural opioid regimen) or merely a very high (>14%) rate of (resident) nonepidural catheter placement?

Preoperative dosing and maintenance of epidurals (with local anesthetic and then morphine) during combined epidural/general anesthesia provide reduced intraoperative general anesthetic requirements and a pain-free emergence in the recovery room. What is the utility of this method, which only misdiagnoses nonfunctional catheters as epidural catheters and requires patients to unnecessarily experience postoperative pain on emergence.

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Local Anesthetic Test Dose to Predict Effective Epidural Opioid Analgesia: III

To the Editor—Weitz et al.1 raise a number of important clinical issues. As the majority of surgical procedures involved abdominal incisions covering dermatomes from T6 to T12, why were the epidurals placed at L2–L3 or L3–L4? A low thoracic epidural is more likely to provide adequate analgesia for abdominal procedures, because the catheter tip is nearer the relevant dermatomal roots.2

Has the practice of placing epidurals preoperatively, without administering a therapeutic dose and establishing anesthesia, been reconsidered in view of the fact that 7 of 49 patients had no demonstrable block and only 20 had a bilateral sensory block of expected distribution? It is good clinical practice to place all epidurals preoperatively, which means it can be determined that there is a functioning epidural before the surgery begins and appropriate adjustments are made if necessary. In addition, the benefits are reduced requirements for general anesthesia, reduction of intraoperative surgical stress, and a possible preemptive analgesia effect.

What were the reasons proffered by the surgeons to justify early removal of epidurals? Unless there is evidence that the epidural is interfering with recovery, we must resist these requests in the interests of our patients' safety and comfort and the possibility of faster recovery.3

What is the value of documenting least pain at rest? Maximum pain at rest is a dubious measure of the efficacy of analgesic regimens, which are better assessed by measuring pain on movement, e.g., getting up, coughing, and walking. It is possible to reduce one's pain by lying quietly, but this interferes with mobilization. Effective epidural analgesia, probably as part of a multimodal pain management approach,3 should be good enough to allow painless ambulation for some days.

The authors refer to "anecdotal experience from patients in whom the epidural catheter are not in the epidural space" when there already were seven patients in this observational study who clearly did not have their catheters in the epidural space. The fact that they experienced any analgesia is probably a reflection of the fact that the hydrophilic opioid morphine was able to enter the epidural space and thence cerebrospinal fluid and spinal cord, despite placement of the catheter in, for example, the paravertebral space. We respectfully suggest that the presence of analgesia in the absence of sensory blockade is less likely to be a reflection of the "insensitivity of our assessment of blockade" than that of the characteristic of morphine to make misplaced epidural catheters effective to some degree when used for epidural opioid analgesia.

The authors' comment in the last line of the article is absolutely correct: The catheter should be replaced if sensory blockade cannot be demonstrated in cases "in which optimal analgesia may [affect] outcome." We would add that such a catheter should be replaced anyway, on the grounds that its location is unknown and its uselessness dubious and that the patient is better served with a correctly placed epidural.

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