

CORRESPONDENCE

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Convulsant Blood Levels of Bupivacaine

To the Editor:—We read with interest the report of Drs. Colley and Heavner concerning blood levels of bupivacaine.¹ In their discussion, they stated “The blood levels of bupivacaine resulting in convulsant activity are not known,” and went on to compare the value of arterial and venous samples.

In 1979, we reported a case in which we were able to obtain an arterial blood level of bupivacaine during a convulsion caused by inadvertent intravascular injection during an attempted epidural block.² The arterial bupivacaine concentration during the convulsion was 5.4 µg/ml. One minute later, after the convulsion had abated, the concentration was 3.5 µg/ml.

As we stated in our conclusions, this one sample does support previous findings that arterial levels of 4.0 µg/ml or less of bupivacaine do not result in convulsions.^{3,4}

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Use of Fiberoptic Bronchoscope to Change Endotracheal Tube Endorsed

To the Editor:—I was interested to see the case report of Rosenbaum, *et al.*¹ relating an experience with the bronchoscopic tube change technique in critically ill patients. Our group in the intensive care unit of the Naval Medical Center, Bethesda, had a similar experience and examined this technique in a prospective manner.* Our indications for use of this technique when tube change is necessary include respiratory failure requiring high PEEP, hemodynamic instability and increased sensitivity to sedatives or relaxants, grossly abnormal anatomy, history of difficult intubation, and unstable cervical frac-

tures or facial fractures. Advantages of the technique include a minimal requirement for sedative, anesthetic, or relaxant drugs, a shortened time for tube change *vs.* other methods, a reduced risk of aspiration, minimal hemodynamic insult, and the opportunity to precisely locate the endotracheal tube position during intubation. Problems which we encountered relate to the limitation in laryngeal capacity for the preexistent endotracheal tube and the bronchoscope in children and small patients, the inability to perform the procedures when the hypopharynx is obscured by bleeding, and the fact that it requires some skill with the fiberoptic instrument.

In the series of 15 adult patients which we reported, we were unable to change the tubes of three without resorting to a direct visualization method. One of these

* Watson C, Balestieri F, Prough D: Bronchoscopic tube change in critically ill patients. Abstracts of the Society of the Critical Care Medicine annual meeting, 1980