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Back pain after epidural 2chloroprocaine

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Epidural anesthesia with 2-chloroprocaine (2CP) provides ideal recovery profiles and discharge times for outpatient surgical procedures (1-3). The drug has, unfortunately, been associated with undesirable side effects, specifically severe back pain following resolution of the block. This was reported to occur as often as fifty percent in patients receiving relatively high doses of the preparation containing EDTA as a preservative (4). The new formulation of 2CP is preservative free. There have been no prospective studies which document the frequency of back pain with the new formulation. We sought to evaluate prospectively all patients receiving 2CP epidurals in an attempt to discover the presence of back pain and to determine what factors might be associated with the frequency or severity of this pain.

Methods: Starting in January of 2002, all patients receiving epidural analgesia by the primary investigators were enrolled for this observational study, which was approved by the institutional review board. There was no attempt at randomization or standardization of doses. For each patient receiving a 2CP epidural, the total dose of 2CP used, the duration of the block, the presence of reinjections, and the use of adjuvant medications was recorded from the anesthesia record. The patient was specifically asked in the recovery room if there was back pain present; and if present, was asked to rate that pain on a verbal analog scale of zero to one hundred. Any treatments that were necessitated by this pain were also recorded. The patients were followed up by a phone call on the day after their surgery to confirm that no other episodes of pain had occurred following their discharge.

Results: To date, 70 patients have been evaluated. 3 had mild back pain on resolution of their block, rated at a severity of 15, 20, and 20 respectively. None required treatment. The average dose of 3% 2CP was 18.1 ml, and the maximum dose was 35 ml. Virtually all patients received ketorolac and fentanyl as part of their anesthetic management. No patient had significant back pain after discharge.

Discussion: Our current data suggests that the incidence of back pain after 2CP epidural is low and mild. The fact that it is not zero suggests that it is not the EDTA alone which produces this syndrome, but that 2CP itself may be an irritant to the paraspinal tissues, and thus might be expected to produce back pain even in the absence of preservatives. Nevertheless, it appears that this syndrome is infrequent and mild, and apparently less frequent than the syndrome of transient neurologic symptoms (TNS) seen after lidocaine spinal anesthesia in the outpatient setting. Epidural 2CP appears to be an acceptable alternative in the outpatient setting.

1. Kopacz, RAPM, 1990:15:19-25
2. Neal, RAPM, 2001:26:35-40
3. Mulroy, Anesth Analg 2000:91:860-4.
4. Stevens, Anesthesiology 1993:78:492-7.

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