

Title: EPIDURAL MORPHINE FOR POSTOPERATIVE EPISIOTOMY PAIN

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Introduction. Epidural narcotics have proven efficacious for a variety of acute and chronic somatic pain conditions.¹ Postpartum episiotomy pain may distress patients who suffer third and fourth degree perineal lacerations and/or require forceps delivery. We believe that epidural morphine could eliminate this perineal somatic pain, thereby enabling the patient to function in a more normal manner during the first postpartum day.

Methods. Twenty-six patients ages 16 to 33 who had received third and fourth degree perineal lacerations and/or forceps assistance at delivery, were given epidural morphine or saline in a randomized double blind manner. Informed consent and approval by the Human Research Practices Committee had been obtained. Patients had received effective lumbar epidural anesthesia for labor and delivery with either lidocaine 1-1.5% or bupivacaine 0.25-0.5%. For pain assessment, a pain intensity scale of 0 to 3 was utilized where 0 = no pain, 1 = mild pain, 2 = moderate pain, and 3 = severe pain. A pain level of 2 or greater was a prerequisite for entering the study. No participant received narcotic analgesia within four hours prior to delivery. The patients were randomly divided into three groups and were medicated through an indwelling lumbar epidural catheter as follows: (1) Group I - saline 15 mL, (2) Group II - morphine sulfate 2.5 mg in 15 mL, and (3) Group III - morphine sulfate 5 mg in 15 mL. The stock preservative-free morphine sulfate was 0.5 mg/mL in saline, supplied by A.H. Robins Company, Richmond, Virginia. Patients were supine with 20° of back elevation at the time of injection. Patients evaluated pain relief by using a 0-4 scale: 0 = worse, 1 = no relief, 2 = some relief, 3 = great relief, and 4 = complete relief. Both pain relief and intensity were assessed every fifteen minutes for the first hour, every thirty minutes for the second hour, and then hourly for twelve hours and again at twenty-four hours. Blood pressure, pulse and respirations were monitored at the same intervals. Response to cold and pinprick stimulation plus skin temperature were evaluated at one and four hours. End tidal CO₂ was measured at one, four, eight and twelve hours.* If epidural injection did not provide pain relief after 30 to 60 minutes, parenteral analgesia was given and repeated parenterally or orally as requested.

Results. Patients receiving epidural morphine (Groups II and III), derived considerable pain relief. Pain relief began fifteen to thirty minutes following epidural injection and reached maximum levels between forty-five and ninety minutes. The duration of "great relief" (relief \geq 3) lasted 0 hours for Group I, 8.1 hours for Group II and 6.4

hours for Group III. Good analgesia, as measured by the desire for additional analgesic medication endured 0.7 hours in Group I, 14.6 hours in Group II and 14.1 in Group III. The number of analgesic medication administrations over twenty-four hours following epidural injection was 6.0, 1.7 and 2.0 for Groups I, II and III respectively. Conversion of all analgesics to "morphine equivalents", demonstrated that patients in each group received an average total of 24 hours of 28.3 mg, 8.1 mg and 10.2 mg respectively. Skin temperature measurements and responses to cold and pinprick did not differ significantly between groups. PETCO₂ increased similarly with time in both morphine and control groups. Pruritis represented the most common side effect. Itching occurred in 0%, 6% and 33% of control and Group II and III patients respectively. Three patients in the control group, five in Group II and six in Group III required bladder catheterization for urinary retention; however, this difference between groups was statistically insignificant.

Discussion. Small doses of epidural morphine effectively reduce postoperative pain from extensive episiotomies; 2.5 mg was as effective as 5.0 mg and neither was associated with the sedation and/or drowsiness or parenteral or oral narcotics. The onset of pain relief is relatively slow, but lasts considerably longer than following parenteral or oral narcotic administration. Pruritis, intense in a few instances, represented the only significant side effect. Its onset was late relative to that of the analgesia (6-11 hours vs 15-45 minutes), which may suggest a CNS mediation as narcotic spreads cephalad rather than a relationship to blood levels which would peak much earlier.² Benadryl did not consistently relieve the pruritis. Significant respiratory depression of late onset, as previously reported,³ did not occur. In summary, epidural morphine provides significant long lasting analgesia from episiotomy pain; however, vexatious pruritis often develops.

References.

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* Datex-Aimex CO₂ Analyzer CD-101, Boston, MA.