Title : PROPHYLAXIS OF EPIDURAL "WET TAP" HEADACHE

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Inadvertent dural puncture occurs in up to 2% of attempted peridural anesthetics in obstetric patients. Despite conservative treatment, significant post-dural puncture headaches have been reported in as many as 76% of these patients. Various prophylactic measures have been proposed. Continuous infusion of saline is reported to reduce the incidence of headache from 73% to 21% (Crawford, Brit. J. Anesth. 44:598, 1972). A Peridural injection of 60 ml of saline immediately following delivery and another 24 hours later have been reported to reduce the incidence of headache from 76% to 12% by another group (Craft et al. Anesth. Analg. 52:228, 1973), however these methods are not in widespread use and their effectiveness is not widely confirmed.

Methods. For the past year all inadvertent epidural punctures in our Obstetric Anesthesia Service have been treated by a modification of the Craft intermittent peridural saline injection technique. Upon inadvertent puncture we have established a second successful peridural catheter implacement and carried out normal obstetric anesthesia. Immediately following delivery a large volume of saline is injected through the catheter until transient dural symptoms appear. After waiting, additional saline is injected until reappearance of dural discomfort on two occasions (from 30 to 60 ml usual dose). Thereafter, the same procedure is repeated every six hours until 24 hours have passed. The peridural catheter is then removed. Patients are not restricted to bed or specially hydrated or given analgesics. No other precautions or instructions are given.

Results. There were 928 peridural anesthetics performed (mostly by resident physicians) during this period resulting in a known inadvertent puncture incidence of 2%. Of these 13 patients so treated, none experienced post dural puncture headaches while in the hospital, but one patient returned to the hospital with typical post puncture headache symptoms five days post partum and was successfully treated with a peridural blood patch. The incidence of failure was 7.7%. The incidence of post dural puncture headaches in our hands during the year previous to this study was 63.6%. The difference between treated and untreated patients was statistically significant to the $p < 0.05$ by the Fisher's exact method (further statistical speculation shows that this same successful incidence would be statistically significant if the untreated group had an incidence of post dural puncture headache as low as 32%).

Discussion. Repeated intermittent peridural saline injections have been most efficacious in our hands in preventing post dural puncture headache. This method has the obvious advantage of avoiding headache completely in many patients, but in addition obviates the necessity for a second procedure (peridural blood patch) in most cases. This method has not resulted in continuing discomfort after the repeated intermittent injections and is well accepted by patients, obstetricians and anesthesiologists.