

Title: TRANSDERM SCOP^R DECREASES POST-CESAREAN NAUSEA AND VOMITING IN PATIENTS RECEIVING EPIDURAL MORPHINE

Authors: D.M. Kotelko, M.D., R.L. Rottman, M.D., W.C. Wright, M.D., J.J. Stone, M.D., A.Y. Yamashiro, M.D., R.M. Rosenblatt, M.D.

Affiliation: Department of Anesthesiology, Cedars-Sinai Medical Center, Los Angeles, CA 90048

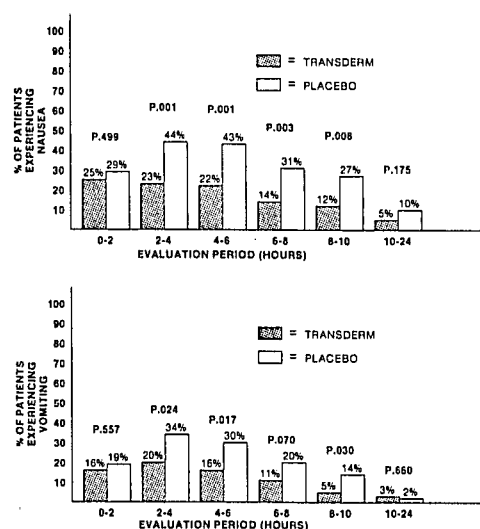
Introduction. Postoperative nausea and vomiting remains a problem in patients receiving epidural morphine analgesia. Although not life threatening, this side-effect is especially bothersome in the post-cesarean delivery patient who wishes to spend time comfortably with her newborn. We determined the effectiveness of a transdermal scopolamine patch (Transderm Scop^R) in preventing post-cesarean nausea and vomiting.

Methods. After institutional approval, 203 consenting patients undergoing an elective cesarean section participated in a block randomized parallel group, double-blind, placebo-controlled study. An attending anesthesiologist applied the test patch post-auricularly prior to the administration of epidural anesthesia using 2.0% lidocaine with 1:200,000 epinephrine. After delivery, 4 mg of morphine sulphate was given epidurally and the patient was then observed at 2, 4, 6, 8, 10, 24 and 48 hours postoperatively. The occurrence and duration of nausea, frequency of retching and vomiting was recorded and analyzed during the initial 24 hours. Pain-relief and side-effects of epidural morphine were recorded, and adverse experiences of the transdermal patch were noted. Infants were also observed at 24 and 48 hours.

Results. Both Transderm Scop^R (TDS) and placebo (PLBO) groups were similar for age, gestational age, gravidity, neonatal weight and Apgar scores. Post-operatively, patients receiving transdermal scopolamine experienced significantly less nausea ($p < .005$) and vomiting ($p < .05$) during the 2 to 10 hour period as compared to the placebo group (Fig 1). The administration of antiemetics was significantly less in the TDS group as compared to the PLBO group. TDS (no antiemetics-73%; 1 dose-21%; 2 doses-6%) compared to PLBO (no antiemetic-56%; 1 dose-29%; 2 doses-11%). P-Values were obtained from Mantel-Hanszel Test.

Both groups experienced good to excellent postoperative pain-relief (TDS 89%, PLBO 92%) and requests for additional analgesics were similar. Mild to moderate pruritus was experienced equally by both groups (TDS 76%, PLBO 69%) and requests for naloxone treatment were similar.

FIG 1 FREQUENCY DISTRIBUTION



Conclusion. Transderm Scop^R provides the patient a simple, painless and continuously administered dose of scopolamine antiemetic. The patch significantly reduced, but did not completely eliminate, the occurrence and severity of nausea and vomiting. We recommend its use in the post-cesarean patient and feel that further evaluation is warranted in other postoperative settings.