

A3

TITLE: P6 ACUPUNCTURE, DROPERIDOL AND VOMITING AFTER PEDIATRIC STRABISMUS REPAIR**AUTHORS:** S. Yentis FCAnaes, B. Bissonnette MD.**AFFILIATION:** Department of Anaesthesia, The Hospital for Sick Children, University of Toronto, Toronto, Ontario, Canada M5G 1X8.**Introduction:** Up to 85% children vomit after strabismus surgery.¹ Acupuncture at the wrist (P6 point) reduces postoperative vomiting in adults, but has not been studied in children.² We compared the antiemetic effects of P6 acupuncture and droperidol in pediatric strabismus repair.**Methods:** After IRB approval and informed parental consent, 90 ASA I or II children for outpatient strabismus surgery were randomly assigned to receive IV droperidol 75 µg·kg⁻¹ (group D), droperidol plus P6 acupuncture (group AD) or acupuncture alone (group A), after induction of anesthesia. Following IV thiopental 5.0 mg·kg⁻¹, atropine 0.02 mg·kg⁻¹, and succinylcholine 1.5 mg·kg⁻¹, the trachea was intubated and all patients spontaneously breathed halothane 1.5-2.0% and N₂O 66% in O₂. Estimated fluid deficit and maintenance requirements were replaced with IV Ringer's lactate. Oral acetaminophen 10.0 mg·kg⁻¹ or IM codeine phosphate 1.0 mg·kg⁻¹ was available postoperatively for pain. Vomiting and/or retching was recorded by blinded observers. Other data collected included age, duration of anesthesia, number of muscles repaired, duration of stay in the recovery room, recovery scores,³ incidence of restlessness, time to drinking fluids and time to discharge from hospital. The parents were contacted 48 hours postoperatively to ascertain the incidence of vomiting at home. Statistical significance (p < 0.05) was determined using ANOVA with SNK, chi-squared and Kruskal-Wallis tests.**Results:** Demographic data, duration of anesthesia and recovery, recovery scores, postoperative drug requirements and times to drinking and discharge was not significantly different between groups. Incidence of vomiting also did not significantly differ (Table). Postoperative restlessness occurred in 63% of children in group D, 67% in group AD and 30% in group A (p = 0.007). No children required admission overnight. The parents of one child in each group could not be contacted by telephone.**Discussion:** Vomiting after strabismus surgery occurs in 41-85% children before discharge from hospital if an antiemetic is not given.^{1,4,5} If vomiting after discharge is included, the incidence is 56-60%.^{4,5} Our study supports the recent finding⁶ that droperidol pretreatment is not as effective in preventing postoperative vomiting after pediatric strabismus surgery as previously shown.⁴ Although it has been suggested that the antiemetic action of P6 acupuncture is depressed by general anesthesia,^{7,8} we have found it as effective as IV droperidol 75 µg·kg⁻¹ pretreatment, whilst causing less postoperative restlessness.**References:** 1. Anesthesiology 59: 579, 1983. 2. Br J Anaesth 63: 612, 1989. 3. Can Anaesth Soc J 22: 111, 1975. 4. Anesthesiology 65: 322, 1986. 5. Can Anaesth Soc J 33: 57, 1986. 6. Can J Anaesth 38: 54, 1991. 7. Anaesthesia 45: 327, 1990. 8. Br Med J 295: 1379, 1987.**Table**

	Groups		
	D	AD	A
Number of patients	30	30	30
Age (yrs)*	5.8 ± 4.5	5.7 ± 4.0	5.8 ± 3.0
No. muscles repaired†	2 (1-4)	2 (1-4)	2 (1-4)
Duration of anesthesia (min)*	37 ± 14	39 ± 12	39 ± 13
Vomiting:			
before discharge‡	5 (17%)	5 (17%)	8 (27%)
total‡	12 (41%)	10 (34%)	13 (45%)
Restlessness‡	19 (63%)	20 (67%)	9 (30%)§

*mean ± SD

†median (range)

‡number (incidence)

§p < 0.05 when compared with groups D and AD

A4

SUSTAINED RELEASE PROCHLORPERAZINE FOR PREVENTION OF NAUSEA AND VOMITING IN SURGICAL OUTPATIENTS

ML Young, M.D., DS Kitz, Ph.D., TJ Conahan, M.D., SJ Aukburg, M.D., JH Lecky, M.D.

University of Pennsylvania, Philadelphia, PA 19104

Introduction. Prochlorperazine (COMP), a commonly used antiemetic, is available in a 15 mg oral sustained release form. We evaluated the efficacy of prophylactic COMP in outpatients for laparoscopy.**Methods.** This study was approved by the institutional review board, and patients gave informed consent. We randomized 120 ASA PS I-II women, ages 18-42 yrs, scheduled for outpatient laser laparoscopy, to receive either COMP or placebo (PLA) 1 hour prior to induction. Patients received general endotracheal anesthesia using thiopental, N₂O/O₂, fentanyl and vecuronium, followed by routine care in the PACU by nursing personnel who were unaware of the treatment regimen. Complaints of nausea and episodes of vomiting were noted, and if persistent, were treated with COMP 5 mg IV. Patients were called at home within 18-48 hours to assess their experience after discharge. T-Tests and ANOVA were used to assess differences between group mean scores and in the distribution of patient characteristics between groups.**Results.** Data were complete for 117 patients. There were no differences between groups regarding age, race, weight, physical status, duration of anesthesia, surgery or PACU stay. Fifty-four percent of COMP patients and 71% of PLA patients vomited in the PACU; 42% of COMP patients and 48% of PLA patients required antiemetic Rx. However, there were significantly fewer complaints of nausea and episodes of vomiting in COMP patients than in PLA patients (Figure). The frequency of nausea or episodes of vomiting at home was similar between COMP and PLA groups and was comparable to the frequency noted in the PACU in patients who received COMP.**Discussion.** Sustained release COMP is easy to administer, and its 10-12 hour duration of action should benefit patients who return home on the day of surgery. We found a high incidence of PACU nausea and vomiting and need for supplemental antiemetic Rx in outpatients undergoing laser laparoscopy, but the severity of nausea and vomiting was significantly less in COMP patients. We conclude that pretreatment with sustained release COMP reduces the severity of nausea and vomiting in the immediate postoperative period, but no significant beneficial effect is evident at home hours later.**FREQUENCY OF NAUSEA AND VOMITING**