A randomized controlled trial of oral ramosetron for the prevention of vomiting after strabismus surgery in children.

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Background : Postoperative nausea and vomiting (PONV) is an important adverse effect of anesthesia and surgery and children undergoing strabismus surgery may be particularly at risk.

Objective : To compare the efficacy and safety of oral ramosetron and intravenous ondansetron for prevention of vomiting following strabismus surgery in children.

Method : In a prospective, randomized double blinded study, 54 children, aged 4-12 years, received oral ramosetron 6 mcg/kg 1 hour prior induction of anesthesia or intravenously ondansetron 0.1 mg/kg at least 30 minutes before the completion of surgery (n = 27 each). A standard general anesthetic technique and postoperative analgesia were used. During first 48 hours after anesthesia, episodes of nausea, vomiting and adverse events were recorded by nursing staff blinded to treatment assignment.

Results : There were no differences in patient demographic characteristics among the treatment groups. The percentage of the patients who had a complete response (define as no nausea, no vomiting and no rescue), during the 0-24 hour after anesthesia was 92.59% and 85.19% in ramosetron and ondansetron group respectively (p = 0.77).The corresponding rate during the 24-48 hour period was 100% and 100% (p = 1.0). No clinically serious adverse events caused by the study dreg were observed in any of the groups.

Conclusion : Our result suggest that ramosetron 6 mcg/kg given preoperatively is an effective antiemetic for prophylaxis against emetic symptoms after strabismus surgery in children.