



PIC QUESTION OF THE WEEK: 1/8/07

Q: Why might tegaserod be prescribed for a patient prior to colonoscopy?

A: Colonoscopy is being performed on an ever increasing number of individuals as it is one of the most important screening tools for colon cancer. Bowel cleansing is usually accomplished by the administration of polyethylene glycol (PEG) solutions (e.g. NuLytely, Colyte, etc.) and a variety of sodium phosphate preparations (Fleet Phospho-Soda, Visicol, etc.). Bisacodyl tablets are frequently incorporated into regimens that include PEG or sodium phosphate. Some suggest that a combination of 2 liters of PEG solution plus four bisacodyl tablets may be the optimal technique for bowel preparation. Disadvantages of using PEG solutions include the large volume of liquid that must be ingested, taste, the inconvenience of frequent administration, and adverse effects such as abdominal pain, nausea, and bloating. Several years ago, investigators began combining the prokinetic agent cisapride (Propulsid) with PEG solution. It was postulated that cisapride would promote intestinal motility, thus providing greater bowel cleansing than PEG alone. An improvement in patient tolerance of the procedure and reduction in adverse effects were also expected. Although some studies suggested this combination regimen was preferable, others were contradictory. Cisapride was withdrawn from the market in 2000 due to its association with cardiac arrhythmias such as prolonged QT syndrome, torsade de pointes, ventricular fibrillation, etc. Tegaserod (Zelnorm) is a partial serotonin (5-HT₄) agonist that acts as a prokinetic agent in the gastrointestinal tract. It is more selective of the 5-HT₄ receptor than cisapride and appears to be devoid of the cardiac effects of that drug. One study evaluated the possible benefit of adding tegaserod to PEG solution for bowel cleansing prior to colonoscopy. This randomized, double-blind, placebo-controlled trial involved 130 patients who ingested 4 liters of flavored PEG solution. One group took two tegaserod tablets (6 mg) the day prior to colonoscopy and one tablet on the morning of the procedure. The other group received three placebo tablets. The authors concluded that addition of tegaserod provided no benefit over placebo when evaluating criteria such as patient tolerance, quality of colonic preparation, or adverse effects. They did suggest that tegaserod might be of benefit for some patients with existing gastroparesis or constipation.

References:

- Sanaka MR, Super DM, Mullen KD, et al. Use of tegaserod along with polyethylene glycol electrolyte solution for colonoscopy bowel preparation: a prospective, randomized, double-blind, placebo-controlled study. *Aliment Pharmacol Ther* 2006;23:669-74.
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