

Evidence-based answers from the
Family Physicians Inquiries Network

CLINICAL INQUIRIES



Q/ Postcholecystectomy diarrhea: What relieves it?

EVIDENCE-BASED ANSWER

A | A TRIAL OF A BILE ACID BINDER such as cholestyramine or colestipol may benefit patients with postcholecystectomy diarrhea (strength of recommendation [SOR]: C, case series).

Although postcholecystectomy diarrhea is uncommon and rarely severe, it can be debilitating (SOR: B, prospective case-control study).

Evidence summary

A prospective study compared the bowel function of 106 adults (85 women) who underwent laparoscopic cholecystectomy with bowel function of 37 women who had laparoscopic sterilization (and served as controls).¹ The investigators gave bowel function questionnaires to both groups before surgery and 2 to 6 months afterward. They found no significant differences in bowel function between the groups.

Of the 6 women in the cholecystectomy group who reported diarrhea, only one had new-onset diarrhea, and it was “mild.” No men reported bowel function changes.¹

Case studies suggest benefit from bile acid binders

When postcholecystectomy diarrhea does occur, the best treatment is unclear in the absence of randomized controlled trials. Case reports and case series support using bile acid binders based on the hypothesis that bile acid malabsorption causes the diarrhea.

The largest case series followed 26 postcholecystectomy patients with chronic diarrhea, defined as more than 3 liquid stools in 24 hours for an average of 3.9 years (range, 3 months to 13 years). Twenty-five of the 26 (96%) had severe bile acid malabsorption.

Cholestyramine, in doses of 2 to 12 g/d “normalized bowel movements” in 23 of the 25 patients with malabsorption (92%). When treatment was suspended, diarrhea recurred

in 9 of the 23 (39%); bowel habits remained regular in 14 (61%).²

A smaller case series studied 8 patients who had postcholecystectomy diarrhea, defined as more than 4 loose stools in a 24-hour period for 1 to 20 years. Six of the 8 had elevated stool bile acids and stool weight greater than 200 g/24 hours. All 6 had less frequent bowel movements within 72 hours of starting oral cholestyramine at 4 to 16 g/d (adjusting the dose to maintain 1 bowel movement daily). Diarrhea recurred in all of the patients after they stopped cholestyramine.³

A single case report of a 71-year-old man who had 4 to 6 loose stools a day for 4 years after cholecystectomy noted improvement to 2 to 3 stools daily when he was treated with either colestipol or psyllium hydrophilic mucilloid.⁴

Recommendations

We found no consensus statements regarding treatment of postcholecystectomy diarrhea. A gastroenterology textbook notes that diarrhea occurs in as many as 20% of patients.⁵ The authors recommend nightly bile acid binders and, in refractory cases, opiate antidiarrheals.

An internal medicine textbook states that postcholecystectomy diarrhea—defined as 3 or more watery bowel movements per day—occurs in 5% to 10% of patients.⁶ The authors recommend treatment with cholestyramine or colestipol.

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References

1. Hearing SD, Thomas LA, Heaton KW, et al. Effect of cholecystectomy on bowel function: a prospective, controlled study. *Gut*. 1999;45:889-894.
2. Sciarretta G, Furno A, Mazzoni M, et al. Post-cholecystectomy diarrhea: evidence of bile acid malabsorption assessed by SeHCAT test. *Am J Gastroenterol*. 1992;87:1852-1854.
3. Arlow FL, Dekovich AA, Priest RJ, et al. Bile acid-mediated postcholecystectomy diarrhea. *Arch Intern Med*. 1987;147:1327-1329.
4. Strommen GL, Dorworth TE, Walker PR, et al. Treatment of suspected postcholecystectomy diarrhea with psyllium hydrophilic mucilloid. *Clin Pharm*. 1990;9:206-208.
5. Schiller LR, Sellin JH. Diarrhea. In: Feldman M, Friedman LS, Brandt LJ, eds. *Sleisenger & Fordtran's Gastrointestinal and Liver Disease: Pathophysiology, Diagnosis, Management*. 8th ed. Philadelphia, PA: Saunders; 2006:159-186.
6. Greenberger NJ, Paumgartner G. Diseases of the gallbladder and bile ducts. In: Fauci AS, Braunwald E, Kasper DL, et al, eds. *Harrison's Principles of Internal Medicine*. 17th ed. New York: McGraw-Hill Medical; 2008. Available at: www.accessmedicine.com/content.aspx?aID=2874111. Accessed February 2008.