

Q: What is the optimal strategy for colon cancer surveillance in patients with ulcerative colitis?

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A: ALTHOUGH THE ASSOCIATION between inflammatory bowel disease and colorectal cancer is well known, the optimal strategy (number of colonoscopies, interval between exams, biopsy protocol) for screening these patients to detect colorectal cancer early is not clear.

*For another clinician's perspective
on colorectal cancer screening, see page 303.*

Until more evidence is gathered, we recommend that patients with ulcerative colitis undergo a colonoscopy every 1 to 3 years. During these procedures, biopsy samples should be taken every 10 cm along the length of the colon, and if any of these samples reveals dysplasia, a total proctocolectomy should be performed.¹

■ RATIONALE

Persons with inflammatory bowel disease have a lifetime risk of colorectal cancer at least twice as high as in the general population. Moreover, they tend to develop colorectal cancer much earlier in their lives than do people with sporadic colon cancer. The longer the person has had inflammatory bowel disease and the more extensive it is, the greater the risk.²⁻⁴ (However, proctitis poses no increase in risk for rectal cancer.)

Frequency of colonoscopies

Since the risk of dysplasia or cancer increases with the duration of ulcerative colitis, testing should be done more frequently as time goes on.⁵ One method calls for testing every 3 years

for the first 20 years of disease, every 2 years for the next 10 years, and every year thereafter.¹ Such an approach provides for at least 20 examinations in 40 years. Most of the evaluations would be performed in the later years when the risk is the highest.

A history of primary sclerosing cholangitis adds significantly to the already high risk of dysplasia and colorectal cancer in patients with ulcerative colitis. Therefore, at the same duration of disease, patients with primary sclerosing cholangitis should be tested more often, perhaps every year.^{3,5,6} For these patients, prophylactic colectomy may offer the best alternative in terms of life expectancy.^{7,8}

Biopsy protocol

Surveillance programs in patients with ulcerative colitis can be expected to detect neoplasia at an early stage and decrease mortality related to cancer.⁹ However, colonoscopy with multiple biopsies as a testing method is problematic.

Because dysplasia can be present focally as well as diffusely, biopsies must be taken throughout the colon. The sensitivity of testing for detecting dysplasia is increased with a greater number of biopsies taken. Therefore, biopsy samples should be taken every 10 cm.

Any biopsy that is positive for dysplasia poses an inordinately high risk: the risk of concurrent cancer is 19% in patients with low-grade dysplasia, and 42% in patients with high-grade dysplasia.¹⁰ Therefore, a total proctocolectomy is recommended for all patients with low-grade dysplasia, high-grade dysplasia, or cancers found at colonoscopy.

Research is ongoing to determine alternative markers of malignancy to improve the sensitivity of the present surveillance regimens. ■

CONTINUED ON PAGE 277

**The optimal
strategy
is not clear,
but screening
should be
frequent**

CONTINUED FROM PAGE 273

REFERENCES

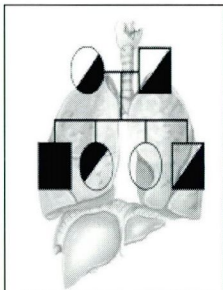
1. **Lashner BA.** Recommendations for colorectal cancer screening in ulcerative colitis: A review of research from a single university-based surveillance program. *Am J Gastroenterol* 1992; 87:168-175.
2. **Greenstein A, Sachar D, Pucillo A, et al.** Cancer in universal and left sided ulcerative colitis: Clinical and pathologic features. *Mt Sinai J Med* 1981; 46:25-32.
3. **Gyde SN, Prior P, Allan RN, et al.** Colorectal cancer in ulcerative colitis: A cohort study of primary referrals from three centres. *Gut* 1988; 29:206-217.
4. **Mir-Madilessi SH, Farmer RG, Easley KA, et al.** Colorectal and extracolonic malignancy in ulcerative colitis. *Cancer* 1986; 58:1569-1574.
5. **Lashner BA, Hanauer SB, Silverstein MD.** Optimal timing of colonoscopy to screen for cancer in ulcerative colitis. *Ann Intern Med* 1988; 108:274-278.
6. **Ekbom A, Helmick C, Zack M, et al.** Ulcerative colitis and colorectal cancer. A population-based study. *N Engl J Med* 1990; 323:1228-1233.
7. **Marchesa P, Lashner BA, Lavery IC, et al.** The risk of cancer and dysplasia among ulcerative colitis patients with primary sclerosing cholangitis. *Am J Gastroenterol* 1997; 92:1285-1288.
8. **Loftus EV, Sandborn WJ, Tremaine WJ, et al.** Risk of colorectal neoplasia in patients with primary sclerosing cholangitis. *Gastroenterology* 1996; 110:432-440.
9. **Provenzale D, Kowdley KV, Arora S, et al.** Prophylactic colectomy or surveillance for chronic ulcerative colitis? A decision analysis. *Gastroenterology* 1995; 109:1188-1196.
10. **Shapiro BD, Lashner BA.** Cancer biology in ulcerative colitis and potential use in endoscopic surveillance. *Gast Endo Clin North Am* 1997; 7:453-468.

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