Cancer surveillance in inflammatory bowel disease

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Deciding which of the available options is best for managing cancer risk in a patient with inflammatory bowel disease depends on the individual patient's cancer risk.

Who is at risk?

Clinicians and patients are well aware of an association between colorectal cancer and ulcerative colitis. This risk mostly applies to patients with longstanding, active disease that affects the entire colon, and those with coexisting primary sclerosing cholangitis or a family history of bowel cancer. Patients with left-sided colitis have a slightly increased risk of malignancy, but to a lesser extent than those with total colitis. In contrast, patients with proctitis or proctosigmoiditis have colorectal cancer rates similar to the general population. Evidence regarding the cancer incidence in Crohn's disease is less clear-cut, but individuals with extensive, active Crohn's colitis do appear to be at increased risk of colorectal carcinoma.

What are the options for managing the risk?

The available options in dealing with the cancer risk in ulcerative colitis include prophylactic proctocolectomy, endoscopic surveillance, chemoprophylaxis and doing nothing. Deciding which option is best for a patient depends on an individual's cancer risk and also an understanding of the benefits and limitations of each approach.

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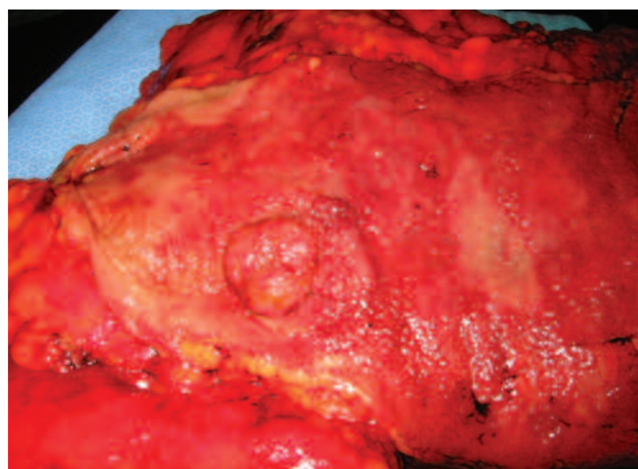

Figure. Colitis complicated by a cancer.

Prophylactic proctocolectomy

The best way to eliminate the risk of cancer is by removing the entire colon before cancer develops, i.e. prophylactic proctocolectomy. In the past, this entailed a permanent ileostomy. Nowadays, the creation of an ileoanal pelvic pouch reservoir preserves normal continence. In spite of this major surgical advance, the operation remains a major undertaking, and most individuals are unwilling to choose this option for prophylactic purposes.

Endoscopic surveillance

Most cancers arising in colitis are preceded by dysplasia, the development of which is related to the long term effects of mucosal inflammation. Dysplasia can be detected at colonoscopy by obtaining multiple colonic biopsies from flat mucosa or from targeted suspicious raised areas. If it is detected, the risk of imminent cancer is sufficiently high to justify surgical removal of the colon. In this way, cancer can hopefully be avoided or detected at an early and curable stage.

Established guidelines recommend that a screening colonoscopy be performed in all patients with colitis eight to 10 years after disease onset to examine the extent of inflammation and assess for neoplasia. Because the risk of cancer applies earlier in patients with coexisting primary sclerosing cholangitis, screening in such patients needs to be undertaken as soon as the cholangitis is diagnosed. Patients with cancer or dysplasia on screening require surgical referral (Figure). The remainder with a negative screening colonoscopy and extensive colitis or primary sclerosing cholangitis can then be offered endoscopic surveillance. Although the guidelines recommend surveillance every one to two years, biennial examinations are usually sufficient.[1] The inclusion of patients with left-sided colitis in a surveillance program is controversial because the efficacy of a

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screening coonoscopy in these patients is less certain and the costs higher.

Chemoprophylaxis

Many studies have shown that long term treatment with a 5-aminosalicylate (balsalazide [Colazide], mesalazine [Mesasal, Pentasa, Salofalk], olsasalazine [Dipentum], sulfasalazine [Pyralin EN, Salazopyrin]) lowers rates of bowel cancer in ulcerative colitis. Whether this is related to an intrinsic property of aminosalicylates or secondary to these drugs' anti-inflammatory effects is unknown. Although an aminosalicylate alone is insufficient to prevent cancer in high risk subjects, its use should be encouraged in patients with an intact colon.

Doing nothing

Rather than engage in any preventive practice, some patients elect only to undergo intervention if and when new symptoms arise. This option is not unreasonable for patients who do not have any increased risk of bowel cancer compared with the general population, such as those with inflammation confined to the rectum. However, it is a particularly hazardous strategy in patients at higher risk because symptomatic cancer is then usually diagnosed at an advanced and incurable stage.

What is the recommended management?

- The risk of colorectal cancer in patients with longstanding, active, extensive colitis or concomitant primary sclerosing cholangitis is too great to ignore. Such individuals should be offered the options of prophylactic proctocolectomy or regular colonoscopic surveillance starting eight to 10 years after disease onset.
- Long term usage of an aminosalicylate is recommended in all patients with colitis who do not require surgery.
- Colonoscopic surveillance as currently recommended is a costly and inconvenient exercise that is difficult to justify in patients at low risk for cancer. The efficacy and cost effectiveness of less rigorous surveillance in these cases need further investigation.
- Although unproven, colonoscopic surveillance is advisable among patients with chronically active, extensive Crohn's colitis. MT

Reference

1. Itzkowitz SH, Present DH. Consensus conference: colorectal cancer screening and surveillance in inflammatory bowel disease. Inflamm Bowel Dis 2005; 11: 314-321.

DECLARATION OF INTEREST: Dr Connell is an Advisory Board member to Pharmatel Fresenius Kabi.

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