



Using colonoscopy in colorectal cancer surgery follow-up

Why is this important?

Colorectal cancer is the most commonly diagnosed internal cancer. It is the second leading cause of cancer death in Australia. In 2000, there were 12,405 new cases and 4718 deaths from colorectal cancer. As with many other cancers, people are more likely to suffer from this particular type as they age. Recent data show a significant improvement in the survival of those with colorectal cancer, compared to figures from a decade earlier. Some 58 per cent of men and women diagnosed with colon cancers are alive five years later. For those with rectal cancer, 61 per cent of women and 57 per cent of men were still alive five years after diagnosis.[1]

The number of people in Australia being diagnosed with colorectal cancer is growing due to the ageing of the population, but with improved treatment and earlier diagnosis, it is expected we will see more people being successfully treated. We also hope to see substantial progress in the prevention of the disease.

People with a personal history of colorectal cancer are at risk of a recurrence of the cancer as well as development of new cancers and pre-cancerous adenomas ('polyps'). Identification at an early stage – either as an adenoma or a curable cancer – is vital to long-term survival.[2] Colonoscopy can detect cancer recurrence and is especially appropriate for the detection of new cancers and polyps, which generally occur later in follow-up.[3] However, too frequent use of colonoscopy when following up patients after colorectal cancer surgery is costly and ties up valuable resources.

Best available evidence

The National Health and Medical Research Council guidelines recommend that most patients with colorectal cancer have pre-operative colonoscopy to detect additional (synchronous) polyps and cancers that may be present, or if this is not possible, then within six months of surgery.

A recent study reported better survival after surgery for colorectal cancer among patients

who had intensive follow-up using techniques such as computed tomography and frequent measurements of cancer-related antigen levels in the blood.[4] In apparent contrast, other studies of intensive follow-up examination including colonoscopy aiming to detect recurrences have shown little effect on patient outcomes.[4,5] This is because many recurrences of the original cancer have already spread beyond the bounds of surgical cure by the time they are detectable by a colonoscope.[2]

The rate of death within five years of colorectal cancer surgery has been shown to be 43 per cent lower among patients who had at least one colonoscopy performed over that time relative to those who had no follow-up colonoscopy.[6] Clearly, colonoscopic surveillance is advantageous when performed at the recommended interval of three to five years. There is no evidence of additional benefit when performed more frequently than this.

A recent Australian study found that colonoscopic follow-up examinations are being done too frequently.

Current practice

It appears that follow-up colonoscopy is being performed too frequently relative to the NHMRC recommendations. For example, one investigation in Perth studied the patterns of postoperative colorectal cancer surveillance.[7] It was found that 75 per cent of the patients had a colonoscopy 12 months after surgery and 48 per cent of these cases underwent a further examination within 12 months. Only 23 per cent of these examinations concurred with NHMRC guidelines, which currently recommend a colonoscopy at an interval of three to five years for patients who have had colorectal cancer surgery.[2,3] This is mainly to detect the development of new cancers and polyps, rather than a recurrence of the original cancer.

Recently it was shown that the supervised application of the NHMRC guidelines to a colorectal cancer surveillance program reduced the number of colonoscopies performed,

bringing practice more into line with the recommended screening interval.[8]

Implications

- More and more people are being diagnosed with and successfully treated for colorectal cancer. It is recommended that such individuals have colonoscopic follow-up every three to five years.
- The frequency of examination using colonoscopy after surgery for colorectal cancer exceeds current NHMRC and North American recommendations.
- Excessive testing has financial and resource implications for health services and exposes patients to unnecessary risks.[9]

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