

Comments to this month's Clinical Challenge

Comments:

The 35 years old man with a colonic polyp

The question is slightly tricky because colonic adenomas seldom occur in young people. Predisposition to colorectal neoplasia should be considered; hence a family history of colorectal neoplasia must be obtained.

The best scenario would be that this gentleman received a complete colonoscopy from anal verge to caecum, the polyp was completely removed and there were no other lesions. In this case, the patient could be safely observed for a period of 3 years. If the polyp removed were bigger than 1 cm, the patient would run a higher risk of future colorectal neoplasia and more frequent colonoscopy might be indicated.

If colonoscopy were incomplete in this patient's case, another colonoscopy would be advisable because the presence of an adenomatous polyp is strongly predictive of similar lesions higher up in the colon.¹ Barium enema is another option; however it does not permit concurrent therapy, as colonoscopy does.

If the endoscopist lacked confidence about the completeness of the polypectomy, another colonoscopy would again be indicated. The second colonoscopy should be arranged in 3-6 months time if the lesion appeared benign to an experienced endoscopist.² If the polyp appeared suspicious or frankly malignant, colonoscopy should be arranged as soon as possible.

In the case of grossly incomplete polypectomy, another colonoscopy should be arranged immediately if the endoscopist considers it possible to remove the lesion completely that way. If the endoscopist considers it risky or impossible to remove the lesion by colonoscopy, surgery is indicated and the surgeon should be consulted.

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If there are polyps left behind, another colonoscopy is generally indicated. If the polyps left behind are few, they should all be removed endoscopically. If the number of polyps exceeds a hundred, a diagnosis of familial adenomatous polyposis can be made and the patient should be appropriately counselled. As this is a hereditary disease transmitted in an autosomal dominant fashion, first-degree relatives should be counselled and screened for disease as well. Referral to a surgeon is appropriate because without surgery the chance of a developing cancer of the colon or rectum approaches 100%. Genetic testing, where available, should be considered.

Current guidelines for the management of colonic polyps

The word "polyp" is a morphological description. Any circumscribed lesion protruding above the surface of its surrounding mucosa is a polyp. Several histological types of polyps exist, the commonest being adenomatous polyps, hyperplastic polyps, hamatoma polyps and inflammatory polyps.

Hyperplastic polyps and inflammatory polyps have no malignant potential. Inflammatory polyps occur in the presence of inflammatory diseases of the colon such as ulcerative colitis, Crohn's disease, ischaemic colitis and pseudomembranous colitis, which require treatment in their own right. These will not be discussed further.

Harmatomas have generally been considered benign and have no malignant potential, although this has been challenged recently based on a higher incidence of colonic malignancy in Peutz Jegher's Syndrome and Juvenile Polyposis. A detailed description of these disease entities is beyond the scope of our discussion.

Adenomatous polyps can be benign or malignant. Benign adenomatous polyps have 3 histopathological types: tubular adenoma, tubulovillous adenoma and villous adenoma. Villous adenomas have the highest malignant potential. Apart from histological type, size has a bearing on malignant potential: the greater the size, the higher the risk. Finally, the more severe the degree of dysplasia, the greater the chance of malignant change. The presence of an adenomatous polyp in the colon is strongly predictive of another (or more) lesion(s) elsewhere in the colon.¹

Based on the above information, a complete colonic survey is indicated if an adenomatous polyp is found, for instance, by sigmoidoscopy. A complete colonic survey means either a colonoscopy or a barium enema.^{3,4} Both methods are acceptable. Barium enema carries with it a lower risk of perforation⁵ but colonoscopy has therapeutic potential.

It is now generally accepted that most, if not all, cases of carcinoma of the colon and rectum arise from pre-existing polyps.⁶ The adenoma-carcinoma sequence takes years to complete. After the colon has been cleared of all polyps, therefore, the risk of colonic malignancy is very low in the subsequent 3 to 5 years. The present guideline is to repeat colonoscopy no more frequently than 3 years after a complete colorectal surveillance in which all polyps have been successfully removed. If no polyps are seen on a second colonoscopy, the next colonoscopy can safely be scheduled 5 years later.

Colonic polyps are very common in the general population and prevalence increases with age. Population screening for people over 50 years of age using faecal occult blood tests has significantly reduced colonic cancer mortality⁷ and incidence.⁸ Although colonoscopy is more sensitive than faecal occult blood test for detecting colonic polyps, its role in population screening is yet to be determined.

Malignant polyps represent a unique problem to the clinician. By taking away only the primary cancer, we have no sure way to determine if lymph node metastasis has occurred. The chance of lymph node spread is high if any of the following features are present:

lymphovascular tumour penetration, poor differentiation, invasion of the muscularis propria, involvement of the base of the polyp or malignancy in a sessile polyp. If the margin of polypectomy is involved by tumour, or any of the above-mentioned features are present, radical surgery is usually indicated. If, on the other hand, the cancer is confined to the head and neck of a pedunculated polyp with a long stalk spared of tumour, a polypectomy with microscopically clear margin is adequate treatment.² ■

References

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5. Dodd GD. The radiologic diagnosis of carcinoma of the colon in gastrointestinal cancer. In: Stroehlein JR, Romsdahl MM, (eds). *Gastrointestinal Cancer*. New York: Raven Press; 1981:327-344.
6. Morson BC. Evolution of cancer of the colon and rectum. *Cancer* 1974; 34:845-850.
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8. Mandel JS, Church TR, Ederer F, *et al.* Colorectal cancer mortality: effectiveness of biennial screening for fecal, occult blood. *J Natl Cancer Inst* 1999;9:434-437.

Further reading

1. Bond JH. Polyp guideline: diagnosis, treatment, and surveillance for patients with non-familial colorectal polyps. *Ann Int Med* 1993;119:836-843.