AUCKLAND RADIOLOGY GROUP

SCAN OFFICIAL NEWSLETTER

November 2008

CT COLONOGRAPHY

2000 CASES OVER FIVE YEARS

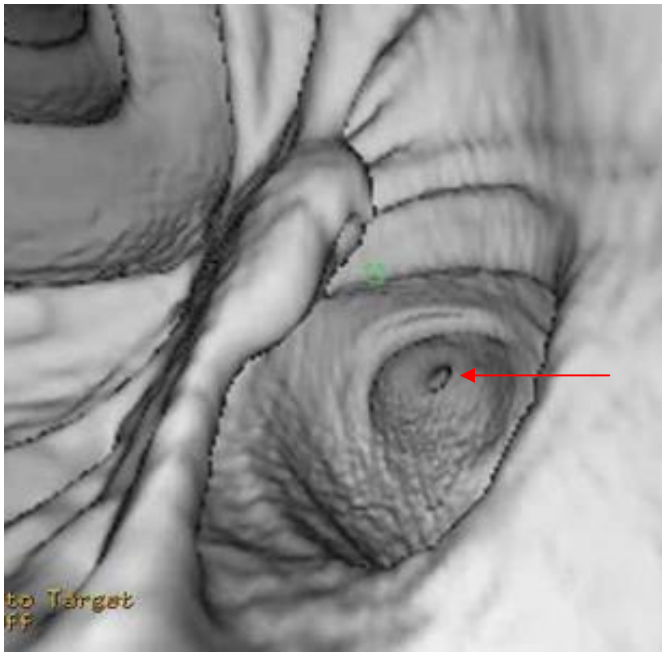
Detection of colorectal cancer and precursor polyps is especially important in New Zealand, which has the highest rate of bowel cancer in the developed world. The American Cancer Society recommends that everyone over the age of 50 should be regularly screened every 3 to 5 years.

Colonoscopy has long been regarded as the definitive procedure for colorectal cancer detection but is associated with a small but significant incidence of complications, requires sedation and is expensive.

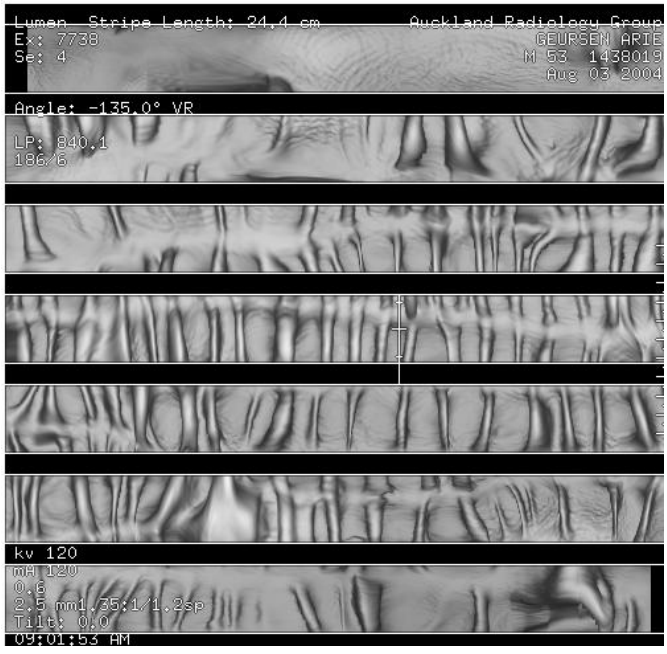
Any new screening test must first be proven to be as safe, acceptable and accurate as the method it is replacing. CTC meets all of these criteria.

ARG radiologists Nick Dodd, George Foote, Helen Moore, Glen Thomson and Jane Peart have gained considerable experience with CTC. More than 2000 examinations have been performed at our Remuera Road and Northern Clinic practices over the past five years.

Our experience has confirmed the **reliability** and **good patient acceptability** reported from overseas. We have found many instances of **other significant extracolonic pathology**, including renal tumours and calculi, enlarged lymph nodes and aortic aneurysms.



The ileocaecal valve and caecum. Note the appendix orifice (arrow).



A normal colon shown in “virtual dissection” mode. The large bowel is displayed as if it had been cut into strips. The rectum is at the top left and the caecum and ileocaecal valve at the bottom right.

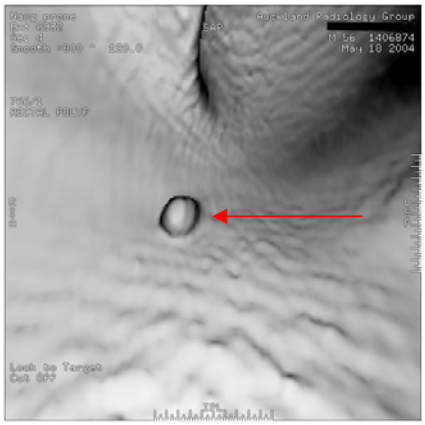
CTC has the further advantage of being **relatively inexpensive**, about half the usual fee for colonoscopy.

A **disadvantage** of CTC is that it uses ionising radiation, but the radiation dose is significantly less than with conventional abdominal CT. A recent audit of CTCs at ARG indicated a median dose of 3.5mSv. This dose is equivalent to about one year of natural background radiation. This is a significantly lower dose than the international median result for CTC of 5.7mSv.

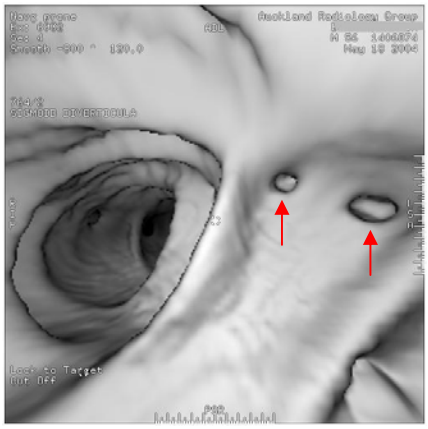
CTC does not provide the same information as colonoscopy…mucosal detail and colour are not visible on CTC and detection of small polyps (less than 5mm) is less reliable with CTC. There is a small miss rate with CTC but the incidence of significant missed lesions is reported to be similar to conventional colonoscopy.

When a polyp of significant size is found on CTC we are usually able to arrange for **same day colonoscopy and polypectomy**, so that further bowel preparation is not required.

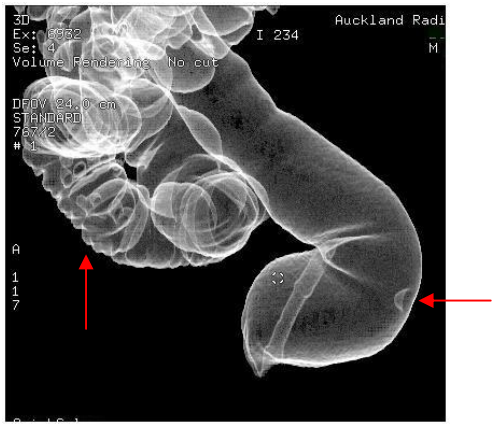
GEORGE FOOTE



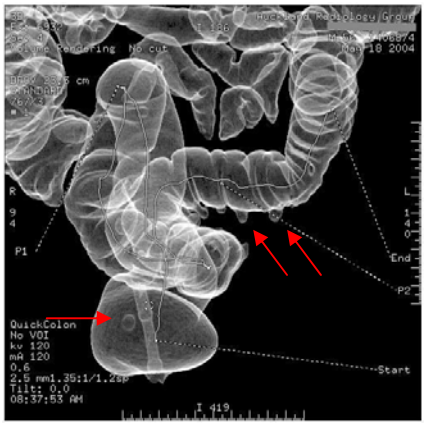
Virtual colonoscopy mode showing a 6mm rectal polyp.



Sigmoid diverticula in the same patient.



Lateral 3D view showing rectal polyp and diverticular disease.



Rectal polyp and diverticula.

Virtual dissection mode showing rectal polyp.

Virtual dissection mode showing sigmoid diverticula.

CTC… A safe and relatively inexpensive alternative to optical colonoscopy.