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The full report is titled “Adverse Events After Outpatient Colonoscopy in the Medicare Population.” It is in the 16 June 2009 issue of *Annals of Internal Medicine* (volume 150, pages 849-857). The authors are J.L. Warren, C.N. Klabunde, A.B. Mariotto, A. Meekins, M. Topor, M.L. Brown, and D.F. Ransohoff.

Adverse Events After Colonoscopy in the Medicare Population

What is the problem and what is known about it so far?

Colonoscopy is a method for inspecting the surface of the colon (also called the *large bowel*). Although colonoscopy has many uses, the most common use is to screen for colon cancer, to investigate symptoms of colon cancer (such as blood in the stool), to prevent colon cancer (by removing polyps), and to check for recurrence after removing polyps or after surgery for colon cancer. Colonoscopy is a safe test, but things occasionally go wrong. The most common problem is bleeding after biopsy of a polyp or cancer. A more rare but more serious problem is when a hole is punched in the wall of the colon (a perforation); the complication occurs about 3 times in every 1000 colonoscopies.

Why did the researchers do this particular study?

The rate of serious complications of colonoscopy in older persons is not known. In addition, the rate of similar complications in persons who did not have colonoscopy is not known.

Who was studied?

The authors studied a large, randomly selected sample of Medicare patients (older than 65 years). Some had colonoscopy. The control participants, who did not have colonoscopy, were the same age and sex as patients who did have colonoscopy.

How was the study done?

The authors measured the rates of serious complications by checking to see whether the patients had been admitted to the hospital or gone to the emergency department within 30 days of colonoscopy because of a heart problem or a gastrointestinal problem (including perforation or bleeding). The authors also checked to see whether the control patients had a similar problem during the same time. These diagnoses are recorded when hospitals submit a claim to Medicare for payment after seeing a Medicare patient.

What did the researchers find?

The rate of gastrointestinal problems was higher in patients receiving colonoscopies than in control participants. For example, the rate of bleeding or perforation was 6.9 per 1000 patients receiving colonoscopies but only 1.8 per 1000 control participants. Rates were higher if the doctor performed a biopsy. Patients who were older or had many chronic conditions (such as high blood pressure or diabetes) had higher rates.

What were the limitations of the study?

The only source of information about complications was claims for payment, which do not have the information to be certain about whether the patient’s problem was really due to the colonoscopy.

What are the implications of the study?

Doctors and patients should think about the risks when deciding whether to do a colonoscopy, especially if the patient is old or sick to determine whether the information that the colonoscopy might give is worth the risk for complications.

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