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Colorectal Cancer Screening with CT Colonography, Colonoscopy, and Double-Contrast Barium Enema Examination: Prospective Assessment of Patient Perceptions and Preferences.

Gluecker TM, Johnson CD, Harmsen WS, Offord KP, Harris AM, Wilson LA, Ahlquist DA.

Department of Radiology, Division of Biostatistics, Survey Research Center, and Department of Internal Medicine, Division of Gastroenterology, Mayo Clinic Rochester, 200 First Street SW, Rochester, MN 55905.

PURPOSE: To prospectively assess and compare perceptions of and preferences for computed tomographic (CT) colonography, colonoscopy, and double-contrast barium enema examination (DCBE) by asymptomatic patients undergoing colorectal cancer screening. **MATERIALS AND METHODS:** A total of 696 asymptomatic patients at higher-than-average risk undergoing colorectal cancer screening were consecutively recruited to undergo both CT colonography and colonoscopy (group 1), and a like group of 617 patients was separately recruited to undergo both CT colonography and DCBE (group 2). Standard bowel preparations were different between the groups undergoing colonoscopy and DCBE. Each patient completed a questionnaire that assessed preparation inconvenience and discomfort, examination discomfort, willingness to repeat examinations, and examination preference. Survey results were compared for significance by using the Wilcoxon rank sum or chi2 test. **RESULTS:** The majority of patients considered the preparation to be uncomfortable (group 1, 460 of 515 [89%]; group 2, 482 of 538 [90%]) and inconvenient (group 1, 393 of 502 [78%]; group 2, 427 of 527 [81%]). Reported discomfort was similar at CT colonography and colonoscopy ($P = .63$) but was less at CT colonography than at DCBE ($P < .001$). Patients experienced significantly less discomfort than expected at both CT colonography and colonoscopy but not at DCBE. Patients' willingness to undergo frequent rescreening was significantly greater for CT colonography than for either colonoscopy or DCBE. The acceptable time interval between screenings was significantly shorter for all examinations if the bowel preparation could be avoided. Overall, patients preferred CT colonography to colonoscopy (group 1, 72.3% vs 5.1%; $P < .001$) or to DCBE (group 2, 97.0% vs 0.4%; $P < .001$). **CONCLUSION:** Patients undergoing colorectal cancer screening prefer CT colonography to both colonoscopy and DCBE. The majority of patients experience discomfort and inconvenience with cathartic bowel preparation. Copyright RSNA, 2003

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