

# Nondysplastic Serrated Polyps Up Neoplasia Risk

*Finding puts emphasis on high-quality baseline screening exams to detect advanced neoplasia.*

BY DENISE NAPOLI

FROM GASTROENTEROLOGY

Patients with proximal, nondysplastic serrated polyps that were discovered on baseline screening colonoscopy were nearly twice as likely to have synchronous advanced neoplasia as were patients without those lesions, reported Dr. Mitchal A. Schreiner and his colleagues.

The risk of finding an adenoma during surveillance also increases in such patients, added Dr. Schreiner of the Portland (Ore.) VA Medical Center (Gastroenterology 2010 November [doi:10.1053/j.gastro.2010.06.074]).

The finding means that when nondysplastic serrated polyps (ND-SPs) are noted, endoscopists must be “especially vigilant and perform high-quality baseline screening exams to ensure detection of patients with advanced neoplasia.”

In what they called the “first large study to examine the outcomes of surveillance colonoscopy in patients with proximal ND-SPs at baseline screening colonoscopy,” the researchers looked at 3,121 asymptomatic patients (96% male) who underwent a screening colonoscopy at 1 of 13 Veterans Affairs medical centers between February 1994 and January 1997. All of the patients in the study were between 50 and 75 years old.

Serrated polyps were defined as any polyp with a “saw-tooth appearance in the colonic crypts.”

Proximal lesions were defined as those that were located proximal to the descending colon. The researchers also assessed “large” ND-SPs, meaning those greater than 10 mm.

Overall, 801 patients (25.7% of the total cohort) had one or more ND-SPs, including 248 patients with one or more proximal ND-SPs (7.9%). A total of 44 patients (1.4% of the total cohort) had at least one large ND-SP, of which 57% were in the proximal colon.

Among the proximal ND-SP patients, 17.3% were found to have synchronous advanced neoplasia (defined as invasive cancer, adenomas with high-grade dysplasia or villous histology, or tubular adenoma greater than 10 mm). The prevalence among patients with no proximal ND-SPs was 10%. After adjustment for age, that translated into a significant 1.90 odds ratio among the proximal ND-SP patients.

Proximal ND-SP patients also showed an increased likelihood of having three or more synchronous small tubular adeno-

## VITALS

**Major Finding:** Having nondysplastic serrated polyps located proximal to the descending colon carried an odds ratio of 1.90 for having synchronous advanced dysplasia, compared with patients without the lesions; having large nondysplastic serrated polyps tripled the risk.

**Data Source:** A study of 3,121 asymptomatic patients (96% male) aged 50-75 years who received a screening colonoscopy at 1 of 13 VA medical centers.

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mas (less than 10 mm) on baseline colonoscopy, “which would have implications for surveillance,” wrote the authors. Overall, 10.7% of patients with the proximal ND-SPs had them, compared with 5.3% of patients with no proximal ND-SPs (OR, 2.19).

With regard to large ND-SPs, the 44 patients with these lesions had a particularly striking prevalence of synchronous advanced neoplasia, at 27.3%, compared with 10.3% of those without these lesions, for an age-adjusted OR of 3.37.

Dr. Schreiner and his colleagues also found that having ND-SPs at screening predicted neoplasia on follow-up colonoscopies up to 5.5 years later.

“The presence of a proximal ND-SP on index colonoscopy is associated with an increased risk of any adenoma during surveillance (OR, 3.14; 95% CI, 1.59-6.20), but not advanced neoplasia (OR, 2.09; 95% CI, 0.44-9.87),” they wrote.

However, “the number of subjects in our cohort with a large ND-SP on baseline colonoscopy who had surveillance colonoscopy within 5.5 years (n = 31) was insufficient to perform risk analyses,” they noted.

The authors pointed out several limitations of the study. For one, “the pathologic criteria for the diagnosis of serrated polyps are subject to interobserver variability,” although this study did classify polyps on the basis of input from three separate reviewers.

Additionally, “since the criteria for SSA [sessile serrated adenomas] were developed after our study, we could not perform an analysis which distinguished HP [hyperplastic polyps] and SSA, which are both nondysplastic,” Dr. Schreiner and his associates said. ■

# ‘Resect and Discard’ Would Cut Colorectal Screening Costs

BY MARY ANN MOON

FROM CLINICAL GASTROENTEROLOGY AND HEPATOLOGY

The cost of colorectal cancer screening could be cut substantially without impairing its effectiveness by adopting a “resect and discard” approach for the smallest polyps, Dr. Cesare Hassan and his colleagues said.

A major portion of the cost of colorectal cancer screening is attributed to pathologic examination of polyps that are identified and resected. Among patients at average risk, more than 60% of all polyps detected at screening are diminutive (5 mm or smaller) and have an extremely low likelihood of being cancerous, said Dr. Hassan of Nuovo Regina Margherita Hospital, Rome, and his associates (Clin. Gastroenterol. Hepatol. 2010;8:865-9).

The “resect and discard” approach calls for simply discarding diminutive lesions rather than performing pathology exams on them. This approach is facilitated by the use of new colonoscopy technology that incorporates narrow-band imaging, which allows for better characterization of the smallest polyps and could conceivably avert further histologic assessment.

The investigators used mathematical modeling to create a cost-effectiveness simulation that would assess the potential savings of adopting a “resect and discard” approach for diminutive polyps in a hypothetical cohort of 100,000 average-risk American men and women aged 50-100 years. The hypothetical costs were calculated by using Medicare reimbursement data.

The model assumed that 85% of colorectal cancers develop from a polypoid precursor, and the remaining 15% are de novo tumors. It incorporated several possible health states: no colorectal neoplasia; diminutive (5 mm or smaller), small (6-9 mm), or large (10 mm or larger) adenomatous polyps; localized, regional, or distant colorectal cancer; and colorectal cancer-related death. Hyperplastic polyps also were included in the simulation.

“In order not to overestimate the efficacy of [narrow-band imaging],” the investigators used performance statistics derived from the literature and assumed an 84% rate of high-confidence classification of polyps, with a 94% sensitivity and an 89% specificity for identifying adenomas. ■

The model further assumed that a “resect and discard” policy was followed for all cases in which a high-confidence diagnosis was achieved using narrow-band imaging, and that all diminutive polyps in which a high-confidence diagnosis could not be made were removed and sent for formal histologic assessment.

The simulation first tested the cost-effectiveness of standard colonoscopy with pathology evaluations of all resected polyps in the cohort. The procedure was found to reduce colorectal cancer incidence by 75% and mortality by 79%.

When these outcomes were projected onto the U.S. population using 2009 census data and assuming a 23% rate of adherence to screening colonoscopy in the general population, standard colonoscopy screening was found to save \$451 million annually, compared with no colonoscopy screening.

The simulation then tested the “resect and discard” approach and found an additional annual benefit of \$25 per person screened. When this outcome was projected onto the U.S. population, this approach added an estimated \$33 million in cost savings to the standard colonoscopy approach.

Importantly, the “resect and discard” approach showed no meaningful effect on the efficacy of colorectal cancer screening, Dr. Hassan and his colleagues noted.

“In theory, the ‘resect and discard’ strategy could affect the efficacy of colonoscopy screening. On one hand, the imperfect narrow-band imaging sensitivity for diminutive adenomas would misclassify some polyps as hyperplastic, preventing the standard follow-up strategy, whilst on the other, the misclassification of hyperplastic polyps as adenomatous lesions caused by the suboptimal specificity would lead to a more intensive and inappropriate 5-year colonoscopy surveillance in some individuals.

“However, the net effect of these two opposing forces was found to be meaningless, mainly because of the marginal efficacy associated with postpolypectomy surveillance, especially for diminutive lesions, compared with the substantial efficacy associated with polypectomy in preventing colorectal cancer,” they explained.

No industry funding supported this study. Dr. Hassan’s colleagues reported ties to Medicsight, Viatronix, and Philips, as well as Olympus. ■

**The ‘resect and discard’ approach, facilitated by the use of new colonoscopy technology, calls for simply discarding diminutive lesions rather than performing pathology exams on them.**