The Characteristics of Small and Diminutive Colorectal Polyps in Caucasians and African American

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Abstract

Purpose: With the increasing availability of CT colonography, the clinical significance of small and diminutive polyps will become of increasing clinical importance. The ethnic differences in colorectal cancer incidences and rates have been previously identified in numerous studies, but fewer studies have examined the characteristics of colorectal polyps in an ethnic cohort. We sought to identify the racial distribution, advanced pathology, and prevalence of small and diminutive colorectal polyps as seen by conventional colonoscopy in an ethnically diverse cohort.

Method: A retrospective review of all colonoscopies from July 2006 until June 2007. A total of 2951 colonoscopies were performed, 2881 had complete data. 1153 patients had colorectal polyps, after exclusion for incomplete anatomical location, age <18, IBD and polyposis syndromes; a total of 1037 patients had 1513 colorectal polyps. Advanced pathology was defined as polyps with high-grade dysplasia, >25% villous component, and carcinoma.

Results: Data was stratified by age and location; with average age for males being 56.9 years and females 58.2 years. Males constituted 62.5% of all polyps evaluated. Of all polyps studied, 43.1% were located in the proximal colon; with African Americans having 40.8% of their polyps in the proximal colon and Caucasians 44.2%. The overall prevalence of polyps was 30.1% and 28.8% in Caucasians and African Americans, respectively. Prevalence of polyps <10mm in size was 88.6% in Caucasians and 91.4% in African Americans. Diminutive polyps in Caucasians were 77.1% and in African Americans were 79.6%. Advanced pathology constituted 4.8% of all polyps evaluated. In African Americans, advanced pathology was 1.4% of polyps <10mm in size. In Caucasians, 2% of polyps <10mm contained advanced pathology; with 5 carcinomas noted in polyps <5mm in size.

Conclusion: Recent studies have demonstrated advanced pathology in small and diminutive polyps based on conventional colonoscopy. Our results demonstrate a clinically important number of small and diminutive polyps contain advanced pathology, and that there are ethnic differences in polyp distribution and pathology. The distribution, size and pathology of polyps <10mm in an ethnically diverse cohort must be evaluated in light of advances in CT colonography for optimal screening, management, and prevention of colorectal cancer.

Purpose

Identify the racial distribution, advanced pathology, and prevalence of small and diminutive colorectal polyps in an ethnic cohort.

Methods

1. A retrospective review of all colonoscopies from July 2006 through June 2007 was performed.
2. Polyp size and pathology were recorded.
3. Advanced Pathology was defined as high-grade dysplasia, carcinoma, and polyps with >25% villous component.
4. Patients with inflammatory bowel disease, age <18 years, and polyposis syndromes, and incomplete data were excluded.

Results

1. 2,951 colonoscopies were performed, and after exclusions, a total of 1,037 patients had 1,513 polyps.
2. Average age of male and females was 56.9 years and 58.2 years respectively.
3. Proximal polyps occurred in African Americans was 40.8% and Caucasians 44.2%.
4. Overall prevalence of polyps in African American and Caucasians was 28.8% and 30.5, respectively.
5. The overall prevalence of polyps <10mm in size in African Americans was 91.4% and 88.6% in Caucasians.
6. Advanced pathology constituted 4.8% of all polyps evaluated.
7. In African Americans, advanced pathology was 1.4% of polyps <10mm in size.
8. In Caucasians, advanced pathology was 2% of polyps <10mm in size, with 5 carcinomas in polyps <5mm in size.

Conclusions

1. Our study demonstrates that polyps categorized as <10mm in size, contain a clinically significant rate of advanced pathology.
2. Advanced pathology occurs in polyps <10mm in both ethnic groups studied.
3. The differences in distribution, size and pathology of polyps <10mm in an ethnic cohort must be evaluated in light of advances in CT colonography.