The Significance of Correlating Incidental Bowel Wall Thickening on CT with Endoscopic Evaluation

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**Purpose:**

Bowel thickening, albeit a nonspecific finding, may be related to significant bowel pathologies, such as neoplasm, inflammatory disease, and ischemia. Although it has been previously described, its accuracy and clinical relevance remain uncertain. The objective of our study is to determine the importance of endoscopic evaluation in patients with incidental findings of thickened bowel wall on CT.

**Methods:**

This is a single institution retrospective study that analyzed patients who underwent colonoscopies for either abnormal small or large bowel CT findings. Patients with past medical histories that predisposed them to have bowel wall thickening, such as colon cancer, IBD, and ischemic colitis, and inflammatory bowel disease, were excluded. Those with abnormal CT findings that were non-bowel related were also excluded. For patients who met the inclusion criteria of abnormal bowel wall thickening, any abnormal colonoscopy findings were biopsied and confirmed with histology.

**Results:**

We reviewed patients at Albany medical Center from November, 2004 to March, 2006. Eighty three patients with abnormal CT findings who underwent colonoscopies were identified. Of these, 34 patients were excluded due to either previous history of colon cancer, IBD, and ischemic colitis or abnormal CT findings that were unrelated to bowel wall thickening. Forty nine patients were included with incidental bowel wall thickening as the primary abnormality on CT who subsequently underwent endoscopic evaluation. There were 31 females and 18 males, ranging in age from 26-80. All abnormal endoscopic findings were biopsied and verified with pathology. Nine (18%) patients had ischemia, 7 (14%) had IBD, 5 (10%) had invasive carcinoma, 3 (6%) had diverticulitis, and 2 (4%) had nonspecific colitis. Normal colonoscopic finding comprised of 23 (47%) patients.

**Conclusion:**

Our review shows that more than half of the patients with thickened bowel wall on CT had significant pathology. Therefore, any incidental finding of bowel wall thickening on CT should warrant further endoscopic examination.