

EVALUATING IF COLONOSCOPIES ARE ESSENTIAL AFTER A DIVERTICULITIS DIAGNOSIS

It was with great interest that we read the work of George Ou and colleagues¹ regarding Colonoscopy after CT-diagnosed acute diverticulitis published June 1, 2015. While this paper explores a very relevant and topical subject there are a few issues we would like to highlight.

Although this paper was published in June 2015 the data were collected for this study from 2005 to 2010. This does make the data potentially outdated, and the authors provide no justification in the paper for what appear to be arbitrarily selected dates. There also appear to be some flaws in the methodology, which could produce some bias. The paper reports 79.6% of the patients received contrast with their CTs; this should have been standardized and the others excluded. There is also no mention of how many clinicians reported the CT scans or if it was a collaborative effort or the work of an individual radiologist, as we know this can differ from generalist to specialist radiologist.²

The paper does not have any follow-up data on 50.9% of the patients, which the authors have recognized as a limitation, but this could be a source of selection bias. The authors also state that 20.2% had premalignant polyps, which they give the endoscopic findings for but do not state if these were picked up on the CT scan. This could imply that not doing a colonoscopy after CT-diagnosed diverticulitis could potentially have led to 32 missed cancers. There is some evidence that CT scans miss around 1 in 29 colorectal cancers.³

The authors' state that among the patients found to have premalignant adenoma colonoscopy was of benefit,

and they go on to suggest that it is conceivable this may have been missed without colonoscopy.

Overall, this study addresses a very relevant clinical question; however, given the points highlighted in this letter, there remains some doubt over the validity of the main conclusions. It would be worth repeating this study, rectifying these issues and those identified by the author. Until the question posed by this study is unequivocally answered, good practice would be to continue to follow-up patients with CT diagnosed diverticulitis with a colonoscopy.

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AUTHOR RESPONSE

We appreciate the insightful comments from Herron and colleagues and the opportunity to expand on a few points.

Our retrospective study¹ demonstrates that the prevalence of malignancy among patients with diverticu-

litis diagnosed on high-resolution (64-slice) CT scan was 1.4%, similar to that of average-risk population.²

The data period was chosen based on the time when high-resolution CT came into widespread use. Since then, 64-slice CT has remained the practice standard at our centre as well as at many others, thus maintaining the applicability of our results.

Ideally, contrast-enhanced CT should be used when acute diverticulitis is suspected, but this is often limited by contrast allergies and impaired renal function in practice. Although the quality of the studies are affected by lack of contrast, radiologists can still make the appropriate interpretations based on the clinical context provided by requesting clinician. We fear that excluding patients who were unable to receive contrast would have introduced substantial selection bias. To ensure that the included patients had findings consistent with acute diverticulitis, all of the CT scans in this study were retrospectively reviewed by a single radiologist specialized in abdominal imaging.

The premalignant findings in 23 patients were not specifically compared with the CT scans in this study. Unlike CT colonography, which involves bowel preparation to rid of fecal matter and enteral contrast to distend the colon as well as to enhance the appearance of polyps, plain CT scan is not designed to assess intraluminal pathology.

None of the 23 patients with premalignant findings had undergone colorectal cancer (CRC) screening in the form of endoscopy (it was unknown if they had previous screening in the form of annual fecal occult blood tests) despite a mean age of 61.5 years owing to opportunistic screening being the primary strategy