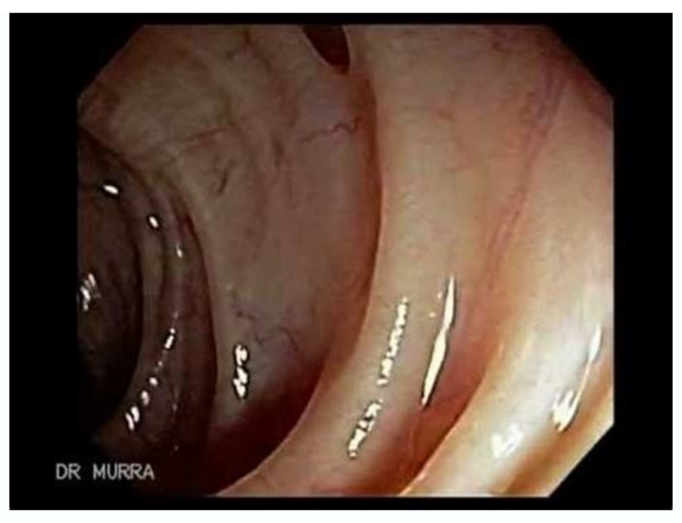
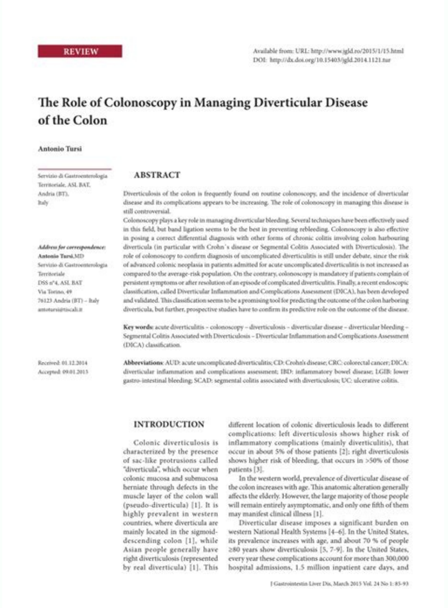
Guidelines for colonoscopy after diverticulitis



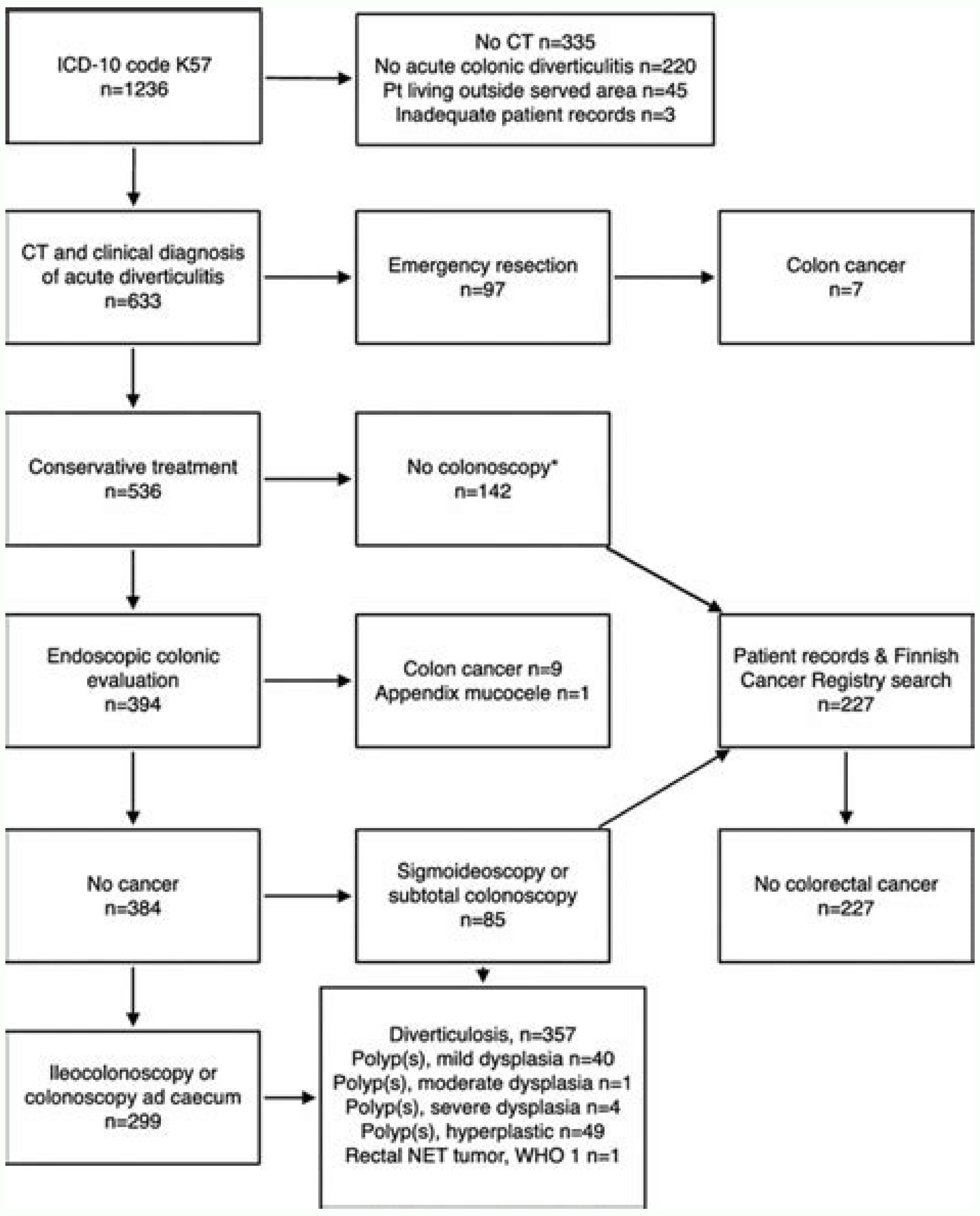

REVIEW

The Role of Colonoscopy in Managing Diverticular Disease of the Colon

Antonio Tursi

ABSTRACT

INTRODUCTION



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Colonoscopy in Acute Diverticulitis

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Question 1: Is there any indication to perform total colonoscopy in acute diverticulitis, confirmed by a positive abdominal ultrasound result and accompanied by an elevated C-reactive protein (CRP) value? Is it acceptable or even mandatory to perform colonoscopy when a patient does not adequately respond to treatment? Do atypical diagnostic imaging results in suspected diverticulitis justify colonoscopy?

Börsch: There is definitely no need for total colonoscopy in a case of typical acute diverticulitis. Such a case would present with ongoing left lower abdominal pain and wall tenderness of acute onset, accompanied by some change of bowel habits, either constipation or diarrhea, and possibly by an increase of body temperature. In addition, there would be elevated inflammatory markers such as CRP, and also positive ultrasound findings of bowel wall thickening > 5 mm at the point of maximal tenderness, a hypoechoic reflection of an inflamed diverticulum, and a cap-like hyperechoic peridiverticular inflammatory reaction. In such a patient, treatment tailored to the clinical situation will be initiated and monitored on clinical grounds. If the response to treatment is unsatisfactory, not colonoscopy but abdominal computed tomography (CT) will be the next diagnostic step, or even repeat CT, if this procedure has already been performed initially. In all likelihood, any inadequate response will rather be due to some extraluminal disease complication, which is not, or at least rarely, viewable by the strictly luminal dimension of the endoscopic procedure and which may possibly even be dealt with by a subsequent CT-guided intervention.

An abdominal CT procedure identifying a triad of colonic diverticulae, localized bowel wall thickening > 4 mm, and an increase in soft tissue density within the adjacent abdominal fat is highly sensitive (e.g. 94%) and specific (e.g. 99%) for acute colonic diverticulitis. This leads to an equally high negative predictive value (pV neg) of 94% in a typical clinical 50/50 disease prevalence of acute diverticulitis versus other potential abdominal disease entities. Thus, in the absence of the above mentioned triad, or in atypical findings such as colonic masses, a diagnosis of acute diverticulitis of clinical relevance would be quite unlikely. It is in these cases with atypical imaging results that I would promptly and without any reservations proceed to total colonoscopy after standard colonic preparation. This is justified by a very low endoscopic complication rate, especially endoscopic perforation rate, in acute colonic diverticulitis anyway (see question 2), all the more in a case with highly unlikely acute diverticulitis. With negative or atypical CT findings, colonoscopy might reveal segmental bacterial or viral colitis, non-occlusive colonic ischemia, Crohn's disease, unclassified colonic inflammatory bowel disease (IBD), or even segmental diverticular colitis, each with quite different therapeutic strategies.

Dormann: Diagnosing diverticulitis usually requires not only clinical but also laboratory test results and diagnostic imaging with sonography and abdominal CT, but not endoscopy [1]. The totality of symptoms (pain), physical examination (left-sided lower abdominal pain), and laboratory values (CRP increase > 50 mg/l) is present in more than 90% of all cases of sigmoid diverticulitis [1]. The compression applied in sonography, which allows the examiner to distinguish between interposed fatty tissue and intestine, can allow the detection of abdominal wall inflammation and con-

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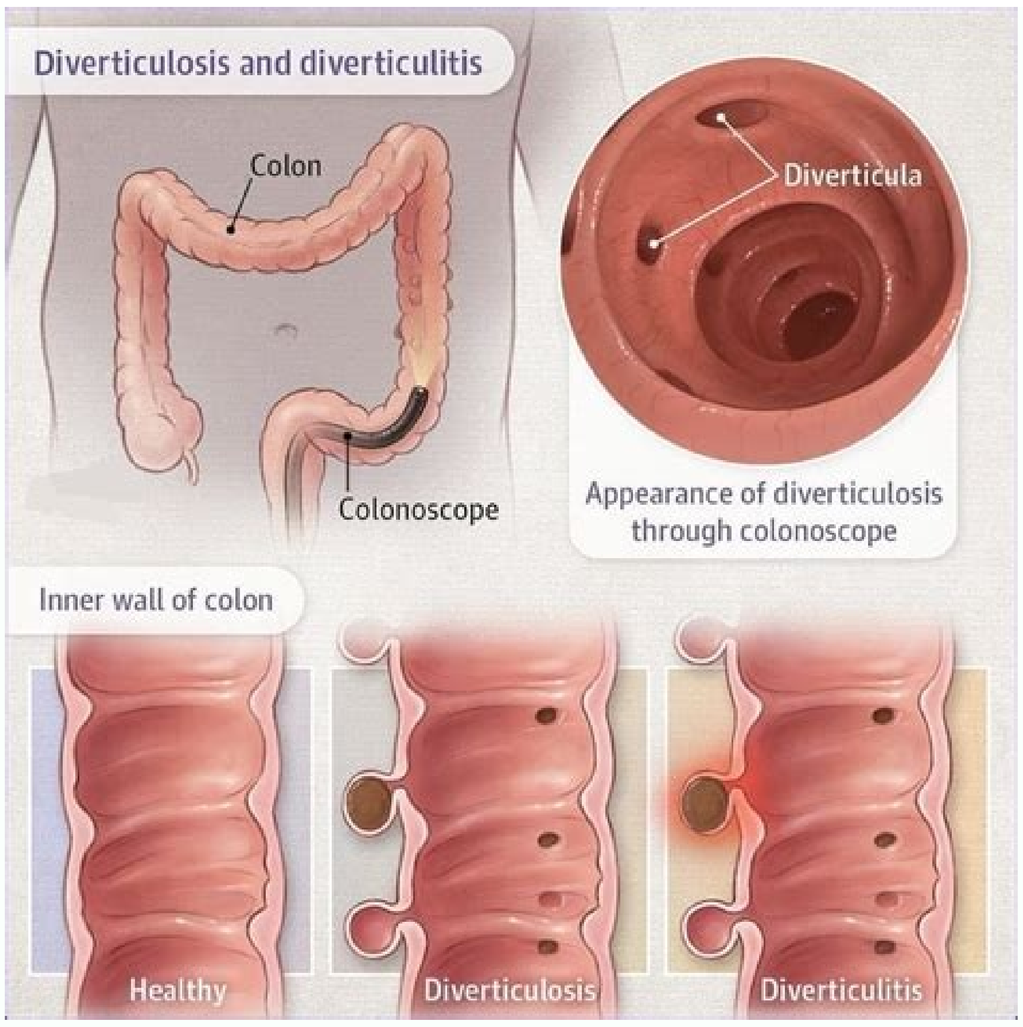

Do you have to have a colonoscopy after diverticulitis. Is a colonoscopy necessary after diverticulitis.

1. Meireles LC, Fernandes SR, Ribeiro LC, Velosa J. Role of endoscopy after an acute episode of diverticulitis:analysis of a cohort of Portuguese patients from a tertiary referral center. Eur J Gastroenterol Hepatol. 2015;27:1429–1432. [PubMed] [Google Scholar]2. Ramphal W, Schreinemakers JM, Seerden TC, Crolla RM, Rijken AM, Gobardhan PD. What is the risk of colorectal cancer after an episode of acute diverticulitis in conservatively treated patients? J Clin Gastroenterol. 2016;50:e35–e39. [PubMed] [Google Scholar]3. Khoury T, Mahamid M, Lubany A, et al. Underlying colorectal cancer was rarely detected after an episode of acute diverticulitis:a retrospective analysis of 225 patients. J Gastrointest Cancer. 2019 Jan 10; [Epub ahead of print]. doi:10.1007/s12029-019-00202-3. [PubMed] [Google Scholar]4. Seoane Urgorri A, Zaffalon D, Pera Román M, et al. Routine lower gastrointestinal endoscopy for radiographically confirmed acute diverticulitis. In whom and when is it indicated? Rev Esp Enferm Dig. 2018;110:571–576. [PubMed] [Google Scholar]5. Walker AS, Bingham JR, Janssen KM, et al. Colonoscopy after Hinchey I and II left-sided diverticulitis:utility or futility? Am J Surg. 2016;212:837–843. [PubMed] [Google Scholar]6. Sharma PV, Eglinton T, Hider P, Frizelle F. Systematic review and meta-analysis of the role of routine colonic evaluation after radiologically confirmed acute diverticulitis. Ann Surg. 2014;259:263–272. [PubMed] [Google Scholar]7. de Vries HS, Boerma D, Timmer R, van Ramshorst B, Dieleman LA, van Westreenen HL. Routine colonoscopy is not required in uncomplicated diverticulitis:a systematic review. Surg Endosc. 2014;28:2039–2047. [PubMed] [Google Scholar]8. Hinchey EJ, Schaal PG, Richard GK. Treatment of perforated diverticular disease of the colon. Adv Surg. 1978;12:85–109. [PubMed] [Google Scholar]9. Kaiser AM, Jiang JK, Lake JP, et al. The management of complicated diverticulitis an the role of computed tomography. Am J Gastroenterol. 2005;100:910–917. [PubMed] [Google Scholar]10. Sartelli M, Catena F, Ansaloni L, et al. WSES Guidelines for the management of acute left sided colonic diverticulitis in the emergency setting. World J Emerg Surg. 2016;11:37. [PMC free article] [PubMed] [Google Scholar]11. Klarenbeek BR, de Korte N, van der Peet DL, Cuesta MA. Review of current classifications for diverticular disease and a translation into clinical practice. Int J Colorectal Dis. 2012;27:207–214. [PMC free article] [PubMed] [Google Scholar]12. Andrade P, Ribeiro A, Ramalho R, Lopes S, Macedo G. Routine Colonoscopy after acute uncomplicated diverticulitis - challenging a putative indication. Dig Surg. 2017;34:197–202. [PubMed] [Google Scholar]13. Stollman N, Smalley W, Hirano I AGA Institute Clinical Guidelines Committee. American Gastroenterological Association Institute Guideline on the Management of Acute Diverticulitis. Gastroenterology. 2015;149:1944–1949. [PubMed] [Google Scholar]14. Francis NK, Sylla P, Abou-Khalil M, et al. EAES and SAGES 2018 consensus conference on acute diverticulitis management:evidence-based recommendations for clinical practice. Surg Endosc. 2019;33:2726–2741. [PMC free article] [PubMed] [Google Scholar]15. Kim MJ, Woo YS, Kim ER, et al. Is colonoscopy necessary after computed tomography diagnosis of acute diverticulitis? Intest Res. 2014;12:221–228. [PMC free article] [PubMed] [Google Scholar]16. Ou G, Rosenfeld G, Brown J, et al. Colonoscopy after CT-diagnosed acute diverticulitis:Is it really necessary? Can J Surg. 2015;58:226–231. [PMC free article] [PubMed] [Google Scholar]17. Soh NYT, Chia DKA, Teo NZ, Ong CJM, Wijaya R. Prevalence of colorectal cancer in acute uncomplicated diverticulitis and the role of the interval colonoscopy. Int J Colorectal Dis. 2018;33:991–994. [PubMed] [Google Scholar]18. Ramphal W, Schreinemakers JMJ, Seerden TCJ, Gobardhan PD. Tumour characteristics of patients with colorectal cancer after acute uncomplicated diverticulitis. Dig Dis. 2018;36:362–368. [PubMed] [Google Scholar]19. Grahnat CJ, Hérard S, Ackzell A, Andersson RE. High probability of an underlying colorectal cancer among patients treated for acute diverticulitis. A population-based cohort follow-up study. World J Surg. 2016;40:2283–2288. [PubMed] [Google Scholar]20. Daniels L, Ünlü Ç, de Wijkerslooth TR, et al. Yield of colonoscopy after recent CT-proven uncomplicated acute diverticulitis:a comparative cohort study. Surg Endosc. 2015;29:2605–2613. [PubMed] [Google Scholar]21. Horesh N, Saeed Y, Horesh H, et al. Colonoscopy after the first episode of acute diverticulitis:challenging management paradigms. Tech Coloproctol. 2016;20:383–387. [PubMed] [Google Scholar]22. Suhardja TS, Norhadi S, Seah EZ, Rodgers-Wilson S. Is early colonoscopy after CT-diagnosed diverticulitis still necessary? Int J Colorectal Dis. 2017;32:485–489. [PubMed] [Google Scholar]Page 2 Innovations in Digestive Health | Winter 2021 Colonic diverticulitis remains a painful, unpredictable gastrointestinal disease that can lead to serious complications, chronic symptoms and poor quality of life. While complicated cases require aggressive treatment, recent American Gastroenterological Association (AGA) guidelines suggest a more conservative approach for uncomplicated, nonsevere diverticulitis. Guidelines from the American Society of Colon and Rectal Surgeons (ASCRS) echo AGA's recommendations. Trevor Teetor, MD In light of these updated guidelines, University Hospitals Digestive Disease Institute has modified its approach to ensure patients receive the most up-to-date, comprehensive care possible. "The AGA guidelines reinforce the need for personalized care," says Trevor Teetor, MD, colorectal surgeon and assistant professor of Colon and Rectal Surgery at Case Western Reserve University School of Medicine. "They will influence my prescribing style and approach to surgery." One notable change: AGA recommends selective, rather than routine, antibiotic use in immunocompetent patients with mild disease. "While antibiotics have long been first-line therapy for acute uncomplicated diverticulitis, recent evidence suggests there is no benefit in immunocompetent patients with mild acute uncomplicated diverticulitis," the report states. "We always thought acute cases involved an immediate infection," Dr. Teetor says. "Now we understand it involves inflammation, which does not necessarily need antibiotics." AGA does, however, advise antibiotic treatment for patients with comorbidities, who present with concerning, high-risk symptoms or who present with complicated diverticulitis. Caption: Pus in the inflamed segment of bowel is typical of diverticulitis. Caption: "Pouches" that form in the colon wall is typical of diverticulosis. A CONSERVATIVE APPROACH TO SURGERY Guidelines around surgery have also changed. Surgeons should advise elective segmental resection on a case-by-case basis rather than on a specific number of episodes. Factors to consider include disease severity, patient preferences and values, and the benefits and risks. Chronic gastrointestinal symptoms may not improve with surgery. The report states that at five-year follow up, patients with recurrent diverticulitis experienced improved quality of life after elective resection. However, 15 percent of patients experienced recurrent diverticulitis after surgery, and between 22 and 25 percent had ongoing abdominal pain. POST-EPISODE COLONOSCOPY Because the risk of malignancy is low, AGA recommends colonoscopy on a case-by-case basis. Colonoscopy is advised after complicated diverticulitis and after an initial episode. For recurrent, uncomplicated cases, AGA recommends physicians consider the patient's history, disease severity and whether they've received a high-quality colonoscopy in the past year. AGA also recommends waiting at least six to eight weeks after an acute episode. Screening before the episode has fully resolved increases risk of perforation, discomfort and can create a more technically demanding procedure for the clinician. Many different pathologies can mimic diverticulitis symptoms, including ischemic colitis, inflammatory bowel disease and visceral hypersensitivity. The AGA recommends CT scan as the best imaging modality to assess for the presence and severity of diverticular disease. "There seems to be a general consensus that uncomplicated diverticulitis has been historically overtreated, we now have a better understanding of the disease process and a greater focus on inflammation rather than infection. The patient must always be managed as a whole with specific factors taken into account, but trends point toward less use of antibiotics, less emphasis on surgery, all of which brings improved patient outcomes." -Trevor Teetor, MD PREVENTATIVE CARE While a nutritious diet is a cornerstone of good health for everyone, patients with a history of diverticulitis should be especially mindful of their eating habits. During the acute phase of uncomplicated diverticulitis, "bowel rest" through a clear liquid diet is advised with a goal of patient comfort. If a patient cannot advance their diet after three to five days, a follow-up appointment should be scheduled immediately. When returning to solid foods, a vegetarian diet and a simple, high-fiber diet rich in fruits, vegetables, legumes and whole grains are associated with decreased diverticulitis risk. And despite myths, corn, popcorn, berry and nut consumption do not increase risk. To further reduce risk, physicians should encourage patients to participate in vigorous exercise, stop smoking, maintain a healthy weight (obesity increases risk) and watch alcohol consumption. While drinking alcohol generally is not a risk factor, alcoholism does increase risk. Regular use of nonsteroidal anti-inflammatory drugs (NSAIDs) and opiate analgesics should also be avoided, the report states. Currently there is no medication available to prevent recurrence of diverticulitis. Although multiple studies have examined rifaximin, probiotics, and 5-aminosalicylic acid (mesalamine) on diverticulitis recurrences, both AGA and ASCRS found insufficient evidence to support their use. "There seems to be a general consensus that uncomplicated diverticulitis has been historically overtreated," Dr. Teetor says. "We now have a better understanding of the disease process and a greater focus on inflammation rather than infection. The patient must always be managed as a whole with specific factors taken into account, but trends point toward less use of antibiotics, less emphasis on surgery, all of which brings improved patient outcomes." For physician consultation or To refer a patient with suspected diverticulitis, call 216-553-1976. Reference Peery AF, Shaukat A, Strate LL, AGA Clinical Practice Update on Medical Management of Colonic Diverticulitis: Expert Review, Gastroenterology (2021), doi: .

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