

Recurrent Diverticulitis: Why Complicate Things?

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Story from the Front Lines

A man in his 60s presented for a general surgery outpatient consult after his primary physician referred him following his 3rd episode of uncomplicated diverticulitis. All of the patient's prior episodes were separated by roughly 2 years, uncomplicated, and successfully managed with oral antibiotics in the outpatient setting. The patient eventually underwent a partial colectomy for prophylaxis against subsequent episodes of diverticulitis.

On post-operative day three, he was noted to be febrile and tachycardic and examination of his surgical site was consistent with an infection. He was treated for his infected abdominal wound as well as for methacillin-sensitive *Streptococcus aureus* bacteremia. After brief empiric therapy with intravenous vancomycin and once blood culture sensitivity data was available, he was managed with intravenous cefazolin for the remaining duration of his hospital admission with completion of his antibiotic course with cephalexin as an outpatient. Transthoracic echocardiography did not reveal any evidence of endocarditis and the patient fully recovered.

Teachable Moment

An acute episode of diverticulitis is managed either medically or surgically with the latter being indicated in cases in which patient develop fistulas, abscesses, bowel perforations, or if fails to respond to intravenous antibiotics. Historically, recurrent episodes of diverticulitis were an indication for elective partial colectomy as prophylaxis against recurrent episodes requiring emergent surgical interventions, but with recent data on the natural history of diverticulitis as well as data on outcomes after surgery, recommendations for surgery have evolved.

Two large, multicenter, retrospective trials reported on the recurrence rate in patients hospitalized with acute diverticulitis and treated non-operatively. One study reported that 86% of patients required no further inpatient care over the 8.9 years of follow-up, with only 13.3% having one recurrence and 3.9% having a second. Another study reported 61% of patients after inpatient management with antibiotics required no further inpatient care after a mean follow-up of 10.6 years. Despite recurrent events being not uncommon, risk for future diverticular complications requiring emergent surgery is substantially lower and has been estimated to be <5%^{1,2}, and while surgical prophylaxis may sound reasonable to avoid an emergent procedure, there are important harms to consider. An estimated 10% of patients undergoing an elective

sigmoid resection after an episode of diverticulitis experience complications such as wound infections, anastomotic leak, and thrombotic events and even in the absence of complications, 5-25% of postoperative patients have recurrent or unresolved abdominal symptoms³.

Overall, these studies have resulted in several conclusions challenging the traditional approach to elective colectomy after diverticulitis managed non-operatively. First, risk for a complicated recurrence requiring emergent surgery after successful recovery from an uncomplicated episode managed medically is low. Second, multiple subsequent episodes do not increase the risk for major complications of diverticulitis⁴. Third, complicated diverticulitis requiring surgery is more common during a first episode rather than during recurrent episodes. Finally, surgical interventions not only may not resolve all abdominal symptoms, but also may result in life-threatening complications.

Reflecting upon the patient presented above, his history of several uncomplicated, medically managed episodes of diverticulitis was not a compelling indication for elective surgery. As with any medical intervention, benefits as well as harms must be considered and in the case of elective partial colectomy for prophylaxis against recurrent episodes of diverticulitis, studies have not demonstrated any benefit in mortality or quality of life. In the end, it would have likely been better to not complicate his uncomplicated diverticulitis.

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