ADVANCES IN IBD

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When to Perform Fecal Diversion in Patients With Crohn's Disease

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G&H What is the best choice for fecal diversion—an ileostomy or a colostomy—and how do these procedures compare?

JA Typically, I favor an ileostomy over a colostomy, especially when patients have Crohn's disease of the colon, rectum, or anal canal/perianal region, to divert the fecal stream from diseased areas. In patients with Crohn's disease who do not have any disease affecting the distal ileum, it can be quite straightforward to create an effective ileostomy. The overall principle when choosing between an ileostomy or a colostomy should be to select whichever will be easiest and most manageable for the patient. Surgeons should treat every ileostomy as if it will be permanent in terms of making it as good as possible, even if they know it will be temporary.

There are several general differences between an ileostomy and a colostomy. Likely the first difference that comes to mind involves the type of output. A colostomy's output has a lower volume and a more concentrated stool burden (ie, more solid than liquid), and patients usually have to empty it fewer times per day. On the other hand, an ileostomy may be favored not only because of its location (it is able to divert the entire colorectum if needed) but also because it may be easier to pouch. From a surgical perspective, it is a little easier to create and close than a colostomy.

G&H In which patients with perianal Crohn's disease should fecal diversion be considered, and what are the outcomes in this setting?

JA I typically offer an ileostomy to patients with perianal or anoperineal Crohn's disease that is reducing their quality of life or not responding to medications. There is a group of patients who have severe perianal disease that does not respond to biologic medications, and something needs to be offered to these patients if their symptoms are out of control, they are miserable, and their medications are not working. Fecal diversion also has a role in patients with chronic ongoing disease who have a response to biologic medications but have long-term or irreversible sequelae of chronic inflammation such as stricturing disease or an anal stenosis. In addition, patients who have such damage to their anal sphincter that they have poor sphincter tone or fecal incontinence are also candidates for fecal diversion in the form of an ileostomy.

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With that being said, my gastroenterology colleagues have very effective medications that can offer patients much relief, so my first step is to make sure that they have been adequately assessed for proper medication. If they are being well-managed medically without a significant improvement, I offer an ileostomy so that they can achieve symptom relief.

A very important concept that I discuss with my patients is that an ileostomy done to divert anoperineal Crohn's disease is only for symptom relief and improvement in quality of life. Patients will ask to close the ileostomy once they see these improvements. However, the disease often returns when the ileostomy is closed. Thus, the ileostomy is symptom-relief management rather than a curative maneuver for the disease that is affecting the patient. I often use it in patients who need symptom control in whom medications are not working but who are not ready to commit to undergoing a permanent ileostomy, or as a bridge to a procedure such as a proctectomy when I need to cool off pelvic sepsis.

It is also important to keep in mind that outcomes are affected by the extent of disease and, in my opinion, the chronicity of disease. A patient with perianal disease that has been smoldering and ongoing without any improvement will have a more difficult recovery, even when an ileostomy is created. In addition, patients who have undergone numerous surgical procedures to control perianal disease and sepsis have worse outcomes. These patients do not heal well; if there have been surgical procedures and much cutting or excising of tissue over time, patients may develop morbid wounds that do not heal well. Those patients require a good deal of recovery and wound care even after an ileostomy is created. It is very important to have an honest discussion with these patients prior to surgery to set reasonable expectations and have a recovery plan.

G&H When is fecal diversion indicated in patients with Crohn's colitis, and how effective is it in these patients?

JA In my opinion, diverting a patient with Crohn's colitis differs a little from diverting a patient with perianal or anoperineal Crohn's disease. There is a similar principle, however, in that diverting Crohn's colitis can mitigate its symptoms. Nevertheless, there is a limit to how well a patient can become just by undergoing fecal diversion. An example is a patient who presents with severe Crohn's colitis, is very sick (relying on high-dose long-term corticosteroids), and/or has a stricture of the colon. Typically, the patient is not ready to undergo removal of the colon. The patient may not be fit to undergo a big operation or there may be confounding pathology, and fecal diversion in the form of an ileostomy may be offered to improve the patient's health. Occasionally, the patient can stop some medications and may become healthier, but there will be a point where that patient cannot become well until the disease is dealt with, which requires definitive removal of part or all of the colon. Thus, I believe that fecal diversion has a role in Crohn's colitis, albeit a limited one.

G&H When and why should a diverting ileostomy be used for a low colorectal or a coloanal anastomosis?

JA The overriding concept for diverting a low colorectal or a coloanal anastomosis is that although the ileostomy does not prevent a leak, it does reduce the morbidity of the leak. The example that I give my patients is to imagine that they have a water pipe that has a leak and then to compare the outcomes when the water source can be turned off before fixing the leak and when the source cannot. In my opinion, the first scenario is very similar to diverting a low colorectal or a coloanal anastomosis.

I am a large proponent of using fecal diversion in these patients for several reasons. One is that an undiverted leak can be morbid, and not just from the abscess that can occur with a leak. In addition to hospitalization and the need to drain the abscess, fibrosis can result as well as long-term complications that can lead to poor bowel function in the long term. I would much rather deal with an ileostomy, even a high-output ileostomy,

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for several months after surgery to allow the patient to recover, and then close it and have an anastomotic leak with a low colorectal or a coloanal anastomosis. The other reason that I am a proponent of fecal diversion in this setting is that if there is a leak that does not heal and the anastomosis needs to be redone, patients are placed at risk of having even more rectum taken out or needing a permanent colostomy, both of which are major lifestyle detriments.

However, even though ileostomies are useful, they may have drawbacks, such as being difficult to pouch, having high output, or causing social problems. Patients can even develop complications that, very rarely, can be quite severe and may result in death. It is important to note the risk of ileostomy complications with patients. Nevertheless, I strongly believe that the benefits of these procedures in general outweigh their risks.

G&H Should immunosuppression affect the use of fecal diversion?

JA Immunosuppressed patients are good candidates for fecal diversion because they tend to have a slower healing rate than nonimmunosuppressed patients. I consider immunosuppressed patients, including those receiving long-term corticosteroids for any reason, for fecal diversion more often than nonimmunosuppressed patients. I believe that fecal diversion helps reduce the risk of complications related to anastomotic leak so that these patients can undergo surgery in an uneventful manner and have good outcomes instead of having long-term complications that can affect their bowel function or put them in the position of needing a permanent ileostomy.

Doctors continually debate as to whether immunosuppression needs to be stopped before fecal diversion can be performed. It is not always necessary to stop immunosuppression, although the effects of medications in general on a patient's ability to heal after surgery are still being learned. In general, the decision of whether to divert is multifactorial, and one of the many factors considered is whether patients have been on medications such as corticosteroids or biologics. However, there should be consideration of all patient and procedure-related factors.

G&H Does fecal diversion also have a role in other settings, such as diverticulitis or colon cancer?

JA I think fecal diversion is an important tool in diverticulitis, especially when it is severe or complicated. An ileostomy can have numerous roles in patients with diverticulitis. I commonly use an ileostomy in patients with severe perforated diverticulitis if it is not safe to perform a bowel resection at the time of surgery. I drain and divert these patients and perform a resection later, when it is safer. I also use an ileostomy when patients are candidates for a resection and anastomosis but are at high risk for an anastomotic leak. An ileostomy is valuable to get these patients through difficult clinical scenarios and healthy again.

Fecal diversion is commonly used in 2 scenarios in colon cancer. The first involves a patient with an obstructing cancer that is not a candidate for colon cancer resection. Fecal diversion will relieve the obstruction and allow the patient to be able to receive chemotherapy, which is often needed. Surgeons also commonly use fecal diversion in the form of an ileostomy when performing colon cancer resection to divert a high-risk or deep pelvic anastomosis to mitigate the effects of an anastomotic leak. In both of these cases, fecal diversion is important to consider.

G&H How should the decision of whether to divert be made?

JA It can be a very complex and difficult decision. All doctors want to spare their patients as much morbidity as possible, and there are very few, if any, patients who would desire an ileostomy. However, it is the responsibility of the surgeon to try to make the best decision for his or her patients so that they can get through the process of surgery or manage complications related to Crohn's disease as easily as possible.

Therefore, when I consider diverting a patient, I look at many factors, including those related to the patient and those related to the procedure. Patient factors include nutrition, how sick the patient is from other medical issues, the presence of immunosuppressive medications such as corticosteroids, and the quality of the patient's tissues at the time of surgery. Procedure factors include where the anastomosis is, how low it is in the pelvis, and how well the operation went in general. I ask myself what would happen if the anastomosis leaked—would it heal on its own or could it be easily repaired? If it is not easily repaired or if it is in a high-risk location that could cause difficulty if the area had to be removed, then I very commonly employ fecal diversion.

In my practice overall, if I think about performing an ileostomy or fecal diversion, I generally do. Although patients may initially be resistant or concerned about having a temporary ileostomy, I have found that almost all eventually understand and agree after we sit down and talk about the risks of the surgery and my concerns regarding potential complications without an ileostomy.

In addition, it is important that all providers keep in mind that Crohn's disease is a lifelong challenge. Surgeons commonly operate on patients who are quite young, who may need multiple operations over their lifetime, and who may be at risk for multiple bowel resections. Thus, every decision that is made with these patients should be done in the spirit of saving and preserving their bowel. Ileostomies and fecal diversions are an important component of reducing the risk of developing complications after bowel resection or other scenarios with these patients. I very commonly employ fecal diversion. I would much rather help patients through a brief, temporary time with an ileostomy than take a risk that might result in them undergoing further unnecessary bowel resection or even be faced with needing a permanent ileostomy. I think fecal diversion is an important tool that should be thoughtfully employed but utilized commonly for bowel preservation in these patients.

G&H Are there scenarios when fecal diversion should be avoided or may cause concern?

JA In my opinion, there are not, generally speaking. Some doctors may be concerned when seeing patients

who require a high-output or difficult-to-pouch ileostomy, and might be dissuaded from creating an ileostomy in those scenarios. I strongly believe those scenarios are easily managed and can be avoided by proper preoperative stoma marking to place the ileostomy in the appropriate location. Measures that I commonly use include employing an enterostomal therapist to see the patient before and after surgery to manage the stoma appliance and, in the setting of a high-output ileostomy, engaging the total parenteral nutrition (TPN) team and pharmacy team to start intravenous fluids or TPN at home while getting through postoperative recovery. As discussed, I prefer to create an ileostomy in a temporary setting to avoid complications that lead to a permanent ileostomy.

G&H What advances have been made recently in this area?

JA Doctors are constantly striving to perfect the decision-making process for who needs an ileostomy, who could have a safe operation without an ileostomy, and how to better manage ileostomy patients. I think better decisions are also being made as to when to operate, for example, identifying patients who would be fit for surgery sooner rather than later once medicine is not working (ie, not waiting until the patient is too sick).

I think surgeons are also becoming better at managing ileostomies with the recent advances in appliances, tools, and techniques for managing these patients on a routine basis. More health care providers are engaging enterostomal therapists to see their patients before and after surgery when facing a temporary or permanent ileostomy. In addition, ileostomies are becoming more acceptable and common for people to see in their communities. In my opinion, one of the greatest social progressions over the past decade is that temporary and permanent ileostomies have become mainstream (even being highlighted on social media), and are now being seen as a normal part of life and a way to achieve good health.

Disclosures

Dr Ashburn has no relevant conflicts of interest to disclose.

Suggested Reading

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