

Fecal Diversion in Patients With Crohn's Disease



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G&H What are the main reasons for performing fecal diversion in a patient with Crohn's disease?

FR There are 2 reasons to perform fecal diversion, or the detouring of stool by creating an ileostomy or colostomy, in a patient with Crohn's disease. Probably the most common reason is for the protection and healing of new suture lines at the time of Crohn's disease surgery or reconstruction to avoid complications with fistulizations and infection. The patient may need a temporary stoma or fecal diversion until the new suture lines can heal completely. The second reason is to control perianal Crohn's disease, which affects the area surrounding the anus. If medical therapy and local surgical therapy are not sufficient to heal this area, a fecal diversion can be performed to detour stool so that the area can heal. The patient can then be further treated with biologic therapy, and the ileostomy (or, rarely, colostomy) can be closed after the fecal diversion.

G&H Why might fecal diversion improve Crohn's disease activity?

FR In the second reason for fecal diversion discussed above, the procedure is performed to detour stool out of the gastrointestinal system so that the perianal area can heal. Whenever stool is in the gastrointestinal system, Crohn's disease is kept active. By detouring stool, the disease activity can be decreased. This may allow a patient to recover mentally, physically, and psychologically, and may give the physician an opportunity to further optimize medical therapy and try to avoid a permanent ileostomy or fecal diversion.

G&H How is fecal diversion typically performed?

FR Most fecal diversions are currently performed laparoscopically, using a minimally invasive technique. Fecal diversion in the setting of perianal Crohn's disease can usually be performed via a small incision or a keyhole surgery. After the surgeon diverts patients' stool to control their perianal disease, the patients can go home in 2 or 3 days and return to their daily activities in 1 to 2 weeks. Minimally invasive surgery has revolutionized our approach to Crohn's disease, especially in the setting of perianal Crohn's disease that requires fecal diversion. In the past, a large incision was needed for the procedure, which was associated with a longer recovery time and a larger burden.

G&H Should biologics be stopped before performing fecal diversion in a patient with Crohn's disease?

FR There is not a clear consensus on this issue. In fact, there have been conflicting study findings and opinions for a long time. At the recent Digestive Disease Week meeting, investigators from the PUCINI trial reported that biologics are safe to use in the perioperative setting, as they do not increase adverse outcomes. I agree with this finding for the most part. However, other research, including a large study of 600 patients from the GETAID Chirurgie Group, has shown that biologics were associated with perioperative complications.

Consensus is also divided on whether patients on biologics should automatically undergo a fecal diversion. In my opinion, if a patient is on biologics, it does not

mean that he or she needs to undergo a fecal diversion. Although I do not think that biologic use is directly related to increased risk of perioperative or septic complications, using biologics too long or too much, or using one biologic after another, may be an indicator for delaying surgery. This is currently a dilemma.

In my opinion, what should affect the decision of whether to perform fecal diversion at the time of surgery is not whether the patient is on biologics or not. The decision should be based on other questions at the time of the surgery, such as: Does the patient have associated major abscesses? Does the patient have associated fistula disease? Will more than 1 resection be needed? What is the quality of the patient's tissue? Will the sutures hold up? These factors are not related to whether or not biologics are being used, but whether or not biologics are being used excessively and for prolonged periods of time, which may be bringing the patient to surgery later than what would be ideal.

G&H Are there any other factors that might affect the decision of whether or not to divert a Crohn's disease patient?

FR The patient should be put at the center of the discussion. The solution is not to avoid the surgery completely; the solution is to refer the patient to a timely surgery so that it does not become complicated. The decision to divert a patient should be dictated not by whether the patient is on biologics or immunosuppression, but by whether the patient is experiencing significant symptoms (such as severe, long-term anemia or significant weight loss over a short period of time) and/or significantly decreased quality of life to avoid surgery and its costs. The patient may also be presenting with abscess, fistulization, small bowel dilatation, discrepancy in the lumen of the bowel, and tissue becoming pliable. These are the factors that should dictate the decision of whether or not to divert a patient, not biologics or immunosuppression.

G&H Do you recommend that any adjustments be made to biologic therapy at the time of, or after, Crohn's disease surgery?

FR It is preferable if patients are not on biologics at the time of Crohn's disease surgery. The PUCINI trial and other trials used biologics within 12 weeks of surgery. I think that is too long to hold biologic therapy. The GETAID Chirurgie Group used biologics within approximately 5 to 6 weeks of surgery, and complications were increased. In my opinion, the timing of the surgery should be arranged around biologic therapy so

that the next dose can be given 4 to 6 weeks after the surgery. In our practice, waiting 4 weeks provides good outcomes, especially in patients undergoing surgery for ulcerative colitis, despite conflicting data in the literature. We individualize decision-making for biologics in Crohn's disease. However, if surgery is urgently needed, it does not matter if the patient has been on biologics; the surgery should be performed without delay.

G&H Are there any predictors of success associated with fecal diversion in Crohn's disease?

FR One thing that has been agreed on is that corticosteroids should be avoided as much as possible. However, I would rather have a patient on corticosteroids than a patient come to me very sick. If biologics do not work for a patient and the patient needs corticosteroids, they should be given to him or her. Nevertheless, I still try to wean the patient off corticosteroids as much as possible before the surgery.

Overall, the success of fecal diversion in patients with perianal Crohn's disease has improved slightly from 10 or 20 years ago. In the most recent study that my colleagues and I conducted on this issue, the success rate of fecal diversion was 22%, likely because of the introduction of biologics. Fecal diversion allows for the optimization of medical care so that patients with refractory perianal Crohn's disease can have successful closure of their ileostomy after the diversion. Perhaps in the past, we were too cautious because of perianal inflammation, infection, and fistula disease. Advances in biologics and the emerging use of stem cell therapy, in conjunction with performing a fecal diversion, will likely allow us to delay the removal of the perineum, and patients will hopefully have less need for a permanent fecal diversion.

G&H How common is the need for fecal diversion in simple and complex Crohn's disease?

FR In simple ileocolic Crohn's disease, a simple ileocolic resection has a very low likelihood of needing an ileostomy, except in certain circumstances such as when the patient is on high-dose corticosteroids. However, in complex Crohn's disease, an ileocolic resection is associated with additional resection and the presence of abscess and fistula disease, requiring multiple stricturoplasties. Once again, biologics are likely an indicator of surgery that is not done in a timely manner. In these cases, patients indirectly will need diversion due to being on biologics for so long because disease will likely convert from simple to complex.

G&H What are the main benefits and drawbacks of fecal diversion in the setting of simple or complex Crohn's disease?

FR The main benefits are that it saves lives and avoids serious abdominal complications. If patients with complex Crohn's disease are not diverted, they may leak feces, which might result in a major abdominal catastrophe. Another benefit of performing fecal diversion in patients with complex Crohn's disease is that they can avoid infection, allowing them to get back onto their biologic therapy quickly. This is very important for the management of complex Crohn's disease.

The main drawback is that patients are inconvenienced for the duration of the fecal diversion, although when the diversion is performed to protect suture lines and promote healing, it usually only lasts for approximately 3 months. In addition, fecal diversion is associated with readmission rates of approximately 10% to 15%. Much of this is tied to the inconvenience of having an ileostomy, and the patient may experience decreased physical and sexual quality of life. Side effects of ileostomy may include dehydration, partial bowel obstruction, food imbalance, and possible need for temporary total parenteral nutrition.

G&H Are the vast majority of fecal diversions temporary?

FR Most are temporary, and when fecal diversions are performed for the healing of suture lines, 3 months are usually sufficient. However, fecal diversions can sometimes be permanent in the presence of refractory perianal Crohn's disease combined with very severe proctocolitis.

The presence of active perianal Crohn's disease increases the likelihood of the fecal diversion being permanent. These patients require a permanent diversion if they become refractory to medical therapy, or if local surgical approaches do not work.

G&H What are the next steps in research?

FR For perianal Crohn's disease, more research is needed on stem cell therapy and small molecule therapy, as well as on better and more effective biologics, so that a permanent diversion can be avoided in this setting. In addition, more research is needed on growth hormone application in patients with a short bowel who need a temporary diversion due to severe Crohn's disease or severe jejuno-ileitis so that they can avoid a permanent diversion. In extreme circumstances, a small bowel transplant can be an option, but I strongly discourage it because of its high 5-year mortality rate.

Dr Remzi has no relevant conflicts of interest to disclose.

Suggested Reading

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