

### Transcript Details

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www.reachmd.com  
info@reachmd.com  
(866) 423-7849

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### Emerging 'Bowel-Sparing' Procedures for Crohn's Disease

#### Narrator:

Welcome to Crohn's & Colitis Perspectives on ReachMD. This series is produced in collaboration with the Crohn's & Colitis Foundation, providing updates and driving innovation in IBD research, education, and clinical support.

#### Dr. Caudle:

Our understanding of complications stemming from Crohn's disease, such as strictures, are continuing to evolve, such that surgeons are now foregoing intestinal resections in favor of bowel-sparing procedures whenever possible, but there are still questions as to what these alternative procedures are and how they can be incorporated into surgical practice.

Welcome to Crohn's & Colitis Foundation Perspectives on ReachMD. I am your host, Dr. Jennifer Caudle, and joining me today to discuss the emergence of bowel-sparing procedures for Crohn's disease is Dr. Fabrizio Michelassi, Chairman of Surgery at Weill Cornell Medicine and surgeon and Chief at New York Presbyterian Weill Cornell Medical Center.

Dr. Michelassi, it's great having you with us. Thank you for being here.

#### Dr. Michelassi:

Thank you very much. It's my pleasure to be on the program.

#### Dr. Caudle:

Absolutely. Well, to start us off, can you give an overview of the current surgical options available for stricturing or fibrostenotic complications of Crohn's disease?

#### Dr. Michelassi:

Absolutely. I think that the 2 main surgical treatments available for fibrostenosing Crohn's disease are resection, intestinal removal and intestinal resection, as well as a strictureplasty. Those are the 2 main approaches that we employ in the majority of patients. There are some patients with disease in the duodenum where, in the past at least, bypasses were done between the stomach and the small bowel, but I think that those patients nowadays probably are better treated with strictureplasties and strictureplasty techniques.

#### Dr. Caudle:

Great. And given these options that you just mentioned, how do you go about making the decision between a small bowel resection versus strictureplasty? Is there a type of patient presentation that would lead surgeons to favor one approach over the other?

#### Dr. Michelassi:

Absolutely, there are certain contraindications to strictureplasty. So, at the time of the surgery, the surgeon needs first to evaluate the strictures for contraindications to do a strictureplasty technique. These contraindications are usually inflammatory masses. They are usually the presence of cancer or dysplasia within a stricture. Very long strictures with a very thick intestinal wall, kind of a garden hose variety of strictures, don't lend themselves too well to strictureplasty techniques. So, in the end, once you have eliminated the strictures with these particular contraindications, at that point the strictureplasty can be entertained for the benefit of the patient.

#### Dr. Caudle:

Great. And what do we know about the comparative success rates for small bowel resection versus strictureplasty?

#### Dr. Michelassi:

You know, it's very interesting. Our understanding of strictureplasty techniques has really matured over the past 40 years. The first

strictureplasty was performed by Emanoel Lee, a colorectal surgeon in England, in Oxford at Radcliffe Infirmary in 1976. And actually, Emanoel Lee had learned about these techniques of strictureplasty from an Indian surgeon by the name of Kataria, who used to do strictureplasties on strictures for tubercular disease, the small bowel. And in 1976, Emanoel Lee did the first strictureplasty but didn't publish the results for 6 years, because even Emanoel Lee was kind of concerned about these techniques—first of all, because you leave disease behind, and we know that Crohn's disease is a recurrent disease, so leaving disease behind makes absolutely no sense, or at least made absolutely no sense; but then with time and in the decades of the '80s and '90s, additional experience was gathered. And actually, nowadays we know 2 things. First of all, the strictureplasty techniques are very safe. They are not matched by an increased perioperative rate of complications. And second, believe it or not, recurrences on strictureplasty techniques occur less frequently than after resection, and this is really an interesting concept.

Dr. Caudle:

It is. Dr. Michelassi, I'd like to focus on this option of strictureplasty, which you're talking about, in a little more detail. What are the most common types of this procedure?

Dr. Michelassi:

Yes, so it depends on the kind of strictures that you're dealing with. If it's a very short stricture like, for instance, an inch or inch and a half, the most common strictureplasty technique that is good for those kind of limited strictures is the Heineke-Mikulicz strictureplasty whereby the surgeon opens the intestine longitudinally on the anti-mesenteric side of the bowel and then closes in a transverse direction creating kind of a diamond-shaped deformity that actually increases the lumen of the intestine and therefore decreases the symptoms associated with the stricture. If the strictures are longer, such as up to 3, 4 inches at the very most, what we use is the Finney strictureplasty, whereby we fold the intestine on itself like a U-shaped turn, and we create a communication between the 2 loops of the U.

The Heineke-Mikulicz strictureplasty is by far the most common. Probably about 85% of strictures are handled with a Heineke-Mikulicz strictureplasty. The Finney strictureplasty, probably in about 5 to 10% of cases. But in some cases where there are multiple strictures one after the other, such as, I would say, like a rosary bead configuration, neither the Heineke-Mikulicz or the Finney strictureplasty is appropriate and more complex and challenging strictureplasties such as the side-to-side isoperistaltic strictureplasties are indicated. And this is a strictureplasty that was devised about 25 years ago and really is optimal for patients with long segments of disease and one stricture after another for, as I said, extensive length of small bowel.

Dr. Caudle:

So that's really helpful, actually, that you went through sort of the different variables and conditions which might necessitate different types of this procedure. Are there any possible complications of strictureplasty that both surgeons and patients should be aware of?

Dr. Michelassi:

Yes, absolutely. I think that the most common complications for a strictureplasty, any kind of strictureplasty, is intestinal bleeding. And after all, you're dealing with inflamed tissues, inflamed intestine, and the postoperative bleeding may occur. Now, fortunately, it occurs only in a minority of patients and requires blood transfusions only in about 2% of patients, and that is the most common complication after a strictureplasty, but in 98% of patients, usually there are no complications at all. Now, if you put this safety record of strictureplasty together with the concept that I was mentioning before, which it seems like the strictureplasty almost offers a preventative, protective effect against recurrences, to me it seems like strictureplasties are more advantageous than bowel resections, not only because they save bowel, but also because to a certain extent put patients at a less risk for recurrences down the line.

Dr. Caudle:

Very interesting. Finally, before we wrap things up—and this has been very helpful—I'd love to get your take on what impact this new approach could potentially have for our patients and on the Crohn's disease care continuum as a whole.

Dr. Michelassi:

Yes. You know, look, we need to put things in perspective, and the majority of patients will be well-served by a limited intestinal resection. And so for limited disease, bowel resection is probably as good as a strictureplasty, but there is a group of patients with extensive disease where I am absolutely convinced that strictureplasties are a better option—first of all, because, as I said, you preserve bowel with strictureplasties, and if you have a rosary bead configuration with many strictures, the intestine in between strictures is totally normal, so not only you preserve the strictured segment, but you also preserve the good intestine in between strictures. The other thing is that, as I mentioned, the patient is at less risk for recurrences.

Now, we also have learned in the past 30 years that recurrences come back almost the same way as the primary index disease. So, let's assume that a patient comes to the attention of a surgeon with disease that goes over the length of 2, 3, 4 feet, so extensive disease. Probably, a bowel resection can be done, no problem; patients go home quickly. But when they recur, they often recur with

the same length, and so all of a sudden, after resecting the initial 4 foot and then resecting the second 4 feet and potentially a third time another 4 feet, it doesn't take long for that patient to become a patient with a short gut and, therefore, a GI cripple. If, on the other hand, to these patients you apply strictureplasty techniques, you save bowel, and that patient is a lesser risk for recurrence. So, if you take a perspective over lifelong disease, that is a better alternative.

Dr. Caudle:

It's so well put, and I think that your discussion of this topic was so helpful and informative. I really couldn't think of a better thought to leave our audience with as well after this very insightful discussion. I'd like to thank you, Dr. Fabrizio Michelassi, for joining us today to talk about bowel-sparing procedures for patients with Crohn's disease. Dr. Michelassi, it was great having you with us.

Dr. Michelassi:

It was my pleasure. Thank you very much.

Dr. Caudle:

Thank you.

Narrator:

The preceding episode was brought to you in collaboration with the Crohn's & Colitis Foundation. If you have missed any part of this discussion, or to find others in the series, visit [ReachMD.com/foundation](https://ReachMD.com/foundation).