

Transcript Details

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Diet & Its Impact on Ulcerative Colitis

Dr. Nandi:

Diet and IBD: as a clinician, you receive this question daily for a multitude of illness, especially for Crohn's and colitis, and yet we have very few answers or guidance that we can give to our patients.

Welcome to *GI Insights* on ReachMD. I'm Dr. Neil Nandi. Joining me, today, to discuss the role of diet and its influence on ulcerative colitis is Dr. Maria Abreu. Dr. Abreu is the Martin Kalsner Endowed Chair in gastroenterology at the University of Miami. She is a distinguished professor of medicine and a professor of microbiology and immunology. She is a director of the Crohn's and Colitis Center at the University of Miami. Listeners, please welcome to the program Dr. Maria Abreu.

Dr. Abreu:

Hey, Neil, it is so nice to join you on this program.

Dr. Nandi:

So, I want to dig deeper into this study looking at diet's role in ulcerative colitis. To summarize, and Dr. Abreu, please feel free to jump in and correct me if I get any details wrong, but there are about 17 patients with ulcerative colitis enrolled over a 3 ½ year period and they either had remission or mild disease and were randomized to one of two groups: one group received a low-fat diet and that was defined by a 10% of total calories from fat and then the other group received what's called the "Ideal, Standard American Diet; ISAD", and I can't help but I think that it's ironic that it's I-"SAD", but (laughter) it was 35 to 40% of calories were from fat and each group did these diets for 4 weeks, then they had a 2 week washout period followed by a 4 week diet of the other type of diet. So, if they were in the low-fat diet for the first 4 weeks, they were in the ideal standard American diet for the second set of 4 weeks, and at baseline, at 4 weeks after the first diet and then week 10, or after the second diet, stool, serologic samples short IBDQ questionnaires and quality of life measures were all measured and assessed and then some outcomes were redone. Does that sum up about the, general study outline Maria?

Dr. Abreu:

Oh, my gosh, you know, the study better than I do.

Dr. Nandi:

OK. (laughter) So first off, I just want to clarify a couple things about the diet itself because we wanna see how does this mirror real life or what kind of interventions might we be able to understand better?

Dr. Abreu:

Those are great questions, you know, as an interesting note, we inadvertently gave these patients more fiber in their diet than what most Americans are probably eating and certainly what they themselves were eating 'cause what we wanted to do was have each person serve as his or her own control and we discovered that although we had intended for the standard American diet to match the patient's baseline diet, at the end of it, when we analyzed the data, these patients were eating almost no fiber at baseline.

Dr. Nandi:

I think it brings a really practical point that we need to be counseling patients on their dietary habits now or even when they're in remission. So, with your study, it seemed to demonstrate that there were the biomarkers that we traditionally look to to non-invasively, non-cliniscopically measure remission to objectify our stool calprotectin, ESR, CRP, and these seem to progressively decrease from the baseline but seem to be much more statistically significant for the low-fat diet. But what was impressive was this marker serum amyloid

A, which I think your group has shown is a better marker for mucosal inflammation that seemed to decrease significantly in the low-fat diet, which was the one with only 10% of calories coming from fat. Can you tell us, what is serum amyloid A?

Dr. Abreu:

As you said, we have found that it's better related to mucosal inflammation as a fragment of the inflammatory process. I think what's remarkable about even seeing any change in the serum amyloid A is a few things: the first is that the patients were already well, right, so we weren't expecting too many changes; in spite of the fact that they started well, we did see some reduction in these inflammatory markers, which weren't all that elevated to begin with. Similarly, we saw improvements in quality of life in both groups; I think that it highlights that patients with ulcerative colitis, even when they're telling us that they're feeling well, they're still affected on a day-to-day basis by their disease.

Dr. Nandi:

For those just joining us, this is *GI Insights* on ReachMD. I'm Dr. Neil Nandi and today I'm speaking with Dr. Maria Abreu on her insightful research into the role of diet in ulcerative colitis. Let me ask you, in your microbial profiling, what kind of microbiome shifts did you see and what do they mean when we see these types of shifts in specific types of microbial species?

Dr. Abreu:

Yes, we saw some microbiome changes, although, in a sense, this is only a 4 week study, right, so how much microbiome change could we expect in a 4 week period? Yet, we did see that there were changes in the microbiome, even in a 4 week period. And so that was interesting. One of the organisms that seems to have expanded in the presence of the low-fat, high fiber diet was an organism that is thought to be beneficial and anti-inflammatory, which is *F. prausnitzii*. That organism was identified as something that seemed to prevent or be associated with less recurrence of Crohn's disease and with higher rates of remission for Crohn's, and generally patients who were on our diet, we saw an increase in anaerobes and an increase in some alpha-diversity, which we thought was beneficial. Overall, I think that the microbiome changes were modest, I think that what my hope would be that we would have better tools in the future so that clinicians could do a test of microbiome diversity, something that could be actionable that we could send off a clinical test.

Dr. Nandi:

We discussed a lot of fascinating details of your study and we've pontificated upon what the future might hold. What kind of tips can you provide to a clinician, or even a patient, who's listening to this podcast and wants to make a few dietary changes that you think will be helpful and hopefully not harmful for their own inflammation?

Dr. Abreu:

I think this is so critically important. On the doctor's side, I would say that you should never tell a patient "it doesn't matter what you eat". Because it does matter and there's a relationship between what they eat with how they feel. On the patient's side, because often, doctors say, "Just figure out what doesn't agree with you," and that's not fair. When people have ulcerative colitis and they have active disease, they're gonna feel unwell with almost anything they eat, and so over time, we've created a bunch of people with food aversions, which is highlighted in my study because no one's eating an apple. No one's eating anything that has fiber, either we told them not to or they ate it one time and they were sick and maybe it made them feel worse so we can't burden them psychologically and psychiatrically with that.

I think the other thing, in terms of healthy eating, which I think can apply to all of us, during the pandemic, is that, for all intents and purposes, anything you make for yourself at home from scratch is gonna be healthier than almost anything you eat out in a restaurant and then almost anything that you're gonna buy that comes in a bag that has a shelf-life that lasts 'til 2022. I think we can educate our patients and give them strategies on how they can incorporate this into their lives, especially now that the world has changed for us and everything is on Zoom and we can do everything remotely, we can be helping people that we'll never see or that are in other parts of the country that can be anywhere and can access this.

Dr. Nandi:

Well, with that in mind, I want to thank you, Dr. Maria Abreu, for joining me today, to discuss the impact of diet in ulcerative colitis. You have many words of wisdom. Dr. Abreu, it was really wonderful to speak with you, today.

Dr. Abreu:

Thank you so much for having me on your show.

Dr. Nandi:

It's my pleasure. For ReachMD, I'm Dr. Neil Nandi. To access this episode and others from *GI Insights*, visit ReachMD.com/GIInsights, where you can Be Part of the Knowledge. Thank you for listening.