Clinical Conversations: IBD aims to provide healthcare professionals with practical information on implementing evidence-based, guidelines-recommended care for patients.

In this podcast, we'll hear from internist Dr. Doron Schneider, Chief Patient Safety and Quality Officer for Abington Health, and gastroenterologist Dr. Sunanda Kane, Professor of Medicine at the Mayo Clinic.

DORON: Good morning, Susie. We're delighted to have you here to talk about an increasingly common condition here in the United States and around the world and that's IBD or inflammatory bowel disease. So welcome to the conversation.

SUSIE: Well, thank you for having me. I really appreciate the time and look forward to a really collaborative discussion.

DORON: Yeah, well thank you. And so inflammatory bowel disease is a tricky condition. As a primary care doctor, I'm a general internist, I see a fair amount of patients who have GI symptoms. And so why don't we start that conversation with exactly that—patients who are presenting who are not diagnosed. So they would present to me, right. They wouldn't necessarily come to you as the first point of contact with their healthcare system, right? I'm assuming most of your patients are referrals, right, from primary care docs.

SUSIE: Well, actually some have such prolonged and distressing systems that they come straight to a gastroenterologist. Some have not been to a primary internist for a long time. They feel like they were otherwise healthy because, as you know, this could be a diagnosis that we make in folks who are younger, meaning, you know, less than 35, so they may not have a relationship with an internist. But you're right, most will have some vague symptoms and present to you first. Correct.

DORON: Yeah, I think that's the opportunity for us this morning is to help really the folks who are on the frontlines to understand some of those early symptoms, understand how to appropriately help people get to the care that they need sooner rather than later.

SUSIE: Exactly.

DORON: So let's talk about that. Patients that I see who have early symptoms, some of them have symptoms that are so early that there is an overlap between what is theoretically in a differential diagnosis of other conditions, such as lactose intolerance or irritable bowel syndrome and celiac disease. I wonder if you could just help us understand a little bit about that overlap and what a primary should do with a patient who's presenting with these relatively early symptoms that may not be specific. How do we walk through that encounter with a patient in a manner that sort of makes sense?

SUSIE: Right, so, as you know, everything starts with a good history. That would include a significant change in bowel habits or nocturnal stool. So, any time someone is getting up in the middle of the night to have a bowel movement, that's going to be pathology. That is not irritable bowel syndrome or celiac. A patient who has unintentionally lost weight, a patient who's having fevers. You want to know if they're having pain and is it in relation to food or is it all the time? Does it get relieved after they've evacuated their bowels? Do they have funny rashes? Do they have eye symptoms? Do they have joint pains that make you think that maybe there's something more systemic than just a GI type of situation? And you want to know whether this has been going on for 5 days or 3 weeks or 3 months. And, you know, because in the differential is still going to be prolonged food poisoning, so a bacterial infection or colitis, a norovirus or enterovirus. And then with your physical exam, do they look well nourished? Do they look comfortable? Do they have to get up in the middle of the interview to have a bowel movement? Do they have signs of unintentional weight loss? And then that's when you start thinking, okay what kind of testing do I want to do based on my history of physical?

DORON: So I love the list that you provided and I'd like to just, for the sake of clarity and education, go over what you inherently may be calling some red flags. Red flags may be found in the history. And you discussed nocturnal diarrhea, nocturnal symptoms that wake people up, that should be a red flag. Weight loss should be a red flag. People who have systemic symptoms such as fever, not see celiac disease or irritable bowel, and then, of course, all the extracolonic or extra GI manifestation as well which could be eye symptoms or skin manifestation. In that light, I think that's very helpful for the primary care doc and it's analogous to other conditions, such as low back pain that we see frequently. The internist, the family doc, the troops on the frontline, do need to sort out the more likely situation where we might have mechanical low back pain versus others which might be more significant, such as a herniated disc or an epidural abscess. The concept of red flags, doing a good history, doing a good physical exam is one that clearly should resonate with us. So thank you for that.

As we increase the amount of history that is sending us to think about red flags, you alluded to a workup. As we all know, we are trying to move towards rational testing, rational use of imaging, high-value care.

SUSIE: And choosing wisely.

DORON: Choosing wisely, right. So for us on the frontlines, help us think through what might be a basic workup. Let's take the hardest situation where people do not have red flags. The red flags may be a little bit easier, but patients are going to present I imagine early on with some non-specific symptoms.

SUSIE: Exactly.

DORON: Do you have any words of wisdom for us as it relates to maybe some basic testing that should be done?

SUSIE: I think you would agree that starting, like you said, with the basics. You know, a CBC understanding if there's anemia. And if there's anemia, is it microcytic to suggest iron deficiency or is normocytic, suggesting maybe some smoldering chronic inflammation; macrocytic makes you think of a B-12 or a folate deficiency that they may just now be manifesting. If the platelet count is high, that's acute phase reactant. So you can get a lot of bang for your buck from just a simple CBC. If you get the differential, is there a high eosinophilic count that makes you think this could be either drug-induced or infectious or autoimmune. You've got those three in your differential. And then a metabolic panel, which would include potassium if the patient were complaining of diarrhea. Are they going enough that they've got some electrolyte imbalance? Is their creatine up so that they're dehydrated or volume depleted from so much diarrhea? And then, of course, you want to know what their albumin is. Maybe there's a protein-losing enteropathy component or they're just not eating because of pain or diarrhea. They're trying to avoid their symptoms. So you're looking for those red flags in the lab workup. A TSH just to check thyroid, as we learned in medical school, the master gland, and certainly hypo- or hyper-thyroidism can give you a myriad of GI symptoms.

And then I think it's become so standard now because celiac is estimated to be one in every 23 or 24 people in the U.S. now, that it is not unreasonable to go ahead and check a tTG as a marker for potential celiac disease. And part of the metabolic panel would also be liver enzymes, so the transaminase, to look for whether there's any abnormity there, and then a stool sample. So stool sample for white cells, but better yet, if you're worried about inflammation, either fecal lactoferrin or calprotectin. Those are stable proteins that are found in the stool, that are a marker, very sensitive but not specific, for inflammation. And why I like those protein markers better than a white cell count is because it's not much more expensive to do that and that these proteins are much more stable in the stool than trying to do a white blood cell count.

DORON: That is very helpful. I just want to review what you said is there is basic. So, CBC, a lot of information you can get. Looking at the size of the cells can point you in one way or the other. Platelet count, etc., can help you with understanding if there's any inflammation. CMP, a complete panel will allow you to see the effect of diarrhea, if there is prolonged diarrhea, hypovolemia. Liver functionality abnormalities to see if there's low albumin to tell you a little bit about the impact here. I wanted to tease out you bringing out your idea of gut inflammation. Just your thoughts out about a sed rate, a CRP. Are there any roles for those?

SUSIE: Sure, so that's an interesting question and I think that that's going to be based on your history and your physical. So if you really feel that there is an inflammatory component or that's fairly high on your differential, then a CRP can be very helpful. The problem with CRP, again, is that it's so sensitive that if you just recently slammed your hand in a car

door, your CRP is going to go up. If you have issues with cardiac disease, your CRP may be elevated. So I'm a little wary of doing a CRP as one of my first line tests, because if it's positive, it may falsely lead me down a trail of inflammation where it may have just been a variance for one or two days and not a marker of chronic inflammation going on. So not unreasonable, but it's not actually part of my first initial workup. I would rather have the stool inflammatory markers than the CRP from the serum.

DORON: So, sounds like if you have no red flags, if your exam is relatively benign, get them more basic blood panel as you describe and the stool white cell count. And so the point also about the issue of sensitivity vs. specificity that these markers of inflammation are so sensitive, you may need a much more aggressive workup that may be needed, at least for us on the frontlines for a good majority of patients. So really think about those red flags and have them be a guide to the workup.

The calprotectin and lactoferrin I think are relatively newer on the landscape for us within the primary care community—the family medicine docs and the internists. I love your comment about how these are not super-expensive tests, right? And so, hopefully, that would be takeaway for folks to be able to have them in addition to the white cells as appropriate. And then, just to finish that off, I believe you alluded earlier to the idea of not forgetting about infectious colitis or infectious processes as well. And if you're checking stool perhaps think about have they acquired C. difficile or have longstanding parasitic conditions, which would also be potentially of some value.

Do you have any words here as we're thinking about closing up this section as it relates to anything that you have seen in your practice where there have been delays in diagnosis at the primary care level that you want to maybe just encapsulate for us any differently than we already have—to the red flags, to a very cogent workup? And we didn't talk about imaging, by the way, so we may want to talk for a moment. But before we get to that any other sort of…

SUSIE: We've actually done some work in this area where we've compared the length of time for a female who has isolated small bowel disease to get her diagnosis versus a male who has isolated small bowel Crohn's disease, and it was about 18 months. We think that's because, the reason I bring up is that if you get a CBC and you've got a woman and she's anemic and, particularly, it's iron deficiency anemia, you get "Oh, she's menstruating." And then it gets written off as menstrual loss as opposed to "Hey there might be something going on in her GI tract." Many women, they may be iron deficient, but they shouldn't be anemic unless they have a real history of menorrhagia or metrorrhagia, and that would be something that you'd want to make sure that you act on because women shouldn't be anemic otherwise.

DORON: Very helpful and there may be some gender bias there as well, that might be underlying that. There's maybe some confusion about stress and irritable bowel syndrome and that may be top of mind. So very helpful.

So, as we get towards the end of this section for the diagnosis part of the podcast, any words about imagining at the internist level, at the primary care level? I'm sure you've seen the whole gamut of what people have done starting with plain films, ultrasound, CT and MR. Help us to really think through should we be doing imaging at the primary care level or should we be referring.

SUSIE: Sure, you know, I think that if you come in and you've got bloating or abdominal pain or something fairly non-specific but there is a little bit of unintentional weight loss, the patient certainly is going to be worried that they have cancer. But if the patient has abdominal pain and cramping and they say they only have a bowel movement once every four days, which, by the way, can happen in Crohn's disease, that imaging is not an unreasonable thing to do because, again, your history or your physical health can help guide you towards what your differential is, but then also what testing you're going to do. And certainly if there are any of these red flags that come up in your discussion or on your physical exam or on the blood work, it doesn't necessarily have to be a gastroenterologist who orders the CT scan. If you've got somebody who's got a little bump in their liver enzymes, an ultrasound of the gallbladder is not invasive and fairly easy to do.

So imaging with CT scans if it's a younger patient, an MRI and an ultrasound and then a plain film for anybody whom you suspect may just be constipated that you can just show them a picture and say, "Look at all the stool inside your colon. We've got to help you poop." I think that are all extremely reasonable and things that are done at the primary care level with a good rationale.

DORON: Perfect. And just one last question in this section—any of the above different as you think about UC or ulcerative colitis versus Crohn's? Do we have to think at all about the presentation and workup history, etc.? Do we think about them together?

SUSIE: Right. So, we're talking about IBD here, which historically includes ulcerative colitis and Crohn's disease. Ulcerative colitis is a condition that is limited to the colon and it's a mucosal disease and so you're much more likely to have bleeding and diarrhea then you are some of the other vague, non-specific symptoms. So, it's the blood that drives patients to their primary care physician and certainly, the stool samples become much more important when there's visible blood and there may be a quicker trigger that's pulled to get that patient to get to a gastroenterologist or at least to order that open-access endoscopy, which we haven't talked about yet. If ulcerative colitis is in the differential, as opposed to Crohn's disease, which historically has been more proximal in location in the GI tract and is going to be less likely to present with bleeding, but it would be anemia because it would be occult bleeding.

DORON: Right. So that's clearly a trigger to get them over to you. You are right, we didn't talk about colonoscopy. That's not something that we do in the primary care world—endo or colon. Maybe just say a few words about your thinking as it relates to when that patient comes to you. Are there any triggers that would be, besides the bleeding, moving it towards a luminal exam probably now rather than later, just from what the primary care doc should know as they're listening to this podcast?

SUSIE: Right, so I think that we both agree that bleeding automatically triggers some endoscopic examination. Now, the question is—is that going to be a flexible sigmoidoscopy versus a full colonoscopy? I think that that depends on the age of the patient, and then we didn't even talk about in terms of the history, a family history. So, is there a family history for Crohn's Disease or ulcerative colitis? That is a piece of information that's going to push you to refer or to do testing much more quickly than somebody who doesn't have that family history because, as we know, these are conditions that do carry a genetic component. These are not genetic conditions, but that you are more likely to have it if there is a family member that has it as well.

Certainly, if the patient is over 45 or 50 and has not had a screening colonoscopy then you'd want to do a full colonoscopy. If there is just a lot of hematochezia and not necessarily a lot of diarrhea, or if they're constipated and they have hematochezia, then a flexible sigmoidoscopy would suffice particularly in a patient who is under 35 and not necessarily even anemic.

DORON: Very, very helpful. Susie, thank you so much. I think in the last 20 minutes we were able to go through history taking, the use of red flags. You were very clear. You gave us a list—physical examination, think outside of the GI tract, make sure you do a good skin exam, look at the eyes, really think broadly and a very cogent workup and think about really moving forward with an eye or high-value care. So, I think this is very helpful and we'll leave it there. Thanks.

SUSIE: Okay, well thank you. Great talking to you.

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