

[MUSIC PLAYING]

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ROQUE:**

Hello. My name is Dr. Maria Vasquez-Roque. I'm a gastroenterologist in the Department of Gastroenterology in Mayo Clinic, Jacksonville. I'm here today to talk a little bit about a concise review for clinicians for nonceliac gluten sensitivity.

The intention of this review is to do a critical assessment of what the literature says about nonceliac gluten sensitivity. Gluten has been found to be a trigger for gastrointestinal symptoms. The gluten-related disorders, which includes celiac disease, wheat allergy, and nonceliac gluten sensitivity have taken a lot of attention in the last couple of years in the gastrointestinal community.

But what's important though is that celiac disease, it's an autoimmune condition that we know the specific testing that's needed to confirm the diagnosis, the same thing goes for wheat allergy. The controversy and the challenge lies around nonceliac gluten sensitivity.

The first couple of studies that were published discussing the ingestion of gluten and inducing gastrointestinal symptoms was back in the 1980s. And since then, there's been a significant amount of research evaluating the role of gluten and the development of gastrointestinal symptoms.

However, the initial biggest challenge is what is nonceliac gluten sensitivity and how do we define it. Clinically, we know that there's not a biomarker for diagnosis. The clinical definition is based on expert opinion and not adopted by everybody in the clinical scenario.

But in brief, how it's being defined today is development of gastrointestinal and extraintestinal symptoms upon gluten ingestion. The symptoms disappear upon gluten exclusion. And the symptoms will reappear upon a gluten challenge. This is all in the absence of celiac disease or a wheat allergy.

Having said that, that means that both these latter conditions have been effectively excluded by a physician. One important thing that this review does for clinicians is highlights the differences between celiac disease, a nonceliac gluten sensitivity, and wheat allergy, which altogether encompass the gluten-related disorders.

On the table, you will see the differences among the three conditions. I do want to highlight that the onset of symptoms among these conditions is different. The pathogenesis is different. The HLA status has also been described to be different.

Also, when you do a small bowel biopsies, these will be different among all these three conditions, particularly when your biopsy on an individual with celiac like disease, you almost always will see damage to the small intestine with villous atrophy, for example. But in a nonceliac like gluten sensitivity, it almost always will be absent. And in a wheat allergy, it will always be absent.

The features or clinical features of these conditions pretty much all range between intestinal and extraintestinal. A big difference will be the complications, because co-morbidities and long-term complications of celiac of disease and untreated celiac disease are far more serious compared to what the long-term implications could be with nonceliac gluten sensitivity. Of course, with a wheat allergy, the implications are more significant with an anaphylactic reaction.

Clinicians need to understand how to first diagnose celiac disease, how to diagnose a wheat allergy, and exclude these conditions when they see a patient in the clinic suggestive of having symptoms induced by gluten ingestion. Celiac disease you would have to rule out with serologies, if the patient is in a normal gluten-containing diet, such as tissue transglutaminase in their blood.

If this is negative, then you could actually think that the patient does not have celiac disease. You could do additional bloodwork ruling out a wheat allergy with IGE or wheat. And if this is negative, then again, you feel more confident that the patient does not have a wheat allergy.

If the patient does have issues with gluten ingestion, and you've effectively ruled out these conditions, the patient can actually go on a gluten-free diet, either short or long-term to see whether their symptoms improve. But it is important that if the symptoms do not improve fully on a gluten-free diet, then look for other potential conditions that may not be related to sensitivity to gluten.

Often, because of the media, patients start on their own a gluten-free diet, prior to getting any medical evaluation. So at times when patients visit a physician, they've already been on a gluten-free diet. And it's a little bit more challenging to even exclude celiac disease, for example.

So other potential testing that patients can undergo would be lactose intolerance testing, which is done through hydrogen breath testing. Also, for fructose intolerance, you can make assessment through hydrogen breath testing as well. Again, these are food elements that could cause gastrointestinal symptoms. And it would be important too as well. But they are effectively ruled out, if a patient notices that their symptoms are related to food ingestion.

In summary, nonceliac gluten insensitivity is considered to be a clinical entity with extraintestinal and intestinal manifestations upon gluten ingestion, when celiac disease and wheat allergy has been effectively excluded, clinically.

Clearly, the future for nonceliac gluten sensitivity is fertile. More research is needed to understand the pathogenesis and how symptoms do develop upon gluten ingestion. Also, establishing a biomarker, clinically, is gonna be key. So this way we can select patients effectively and also be able to establish long-term treatment options for these patients.

Bottom line is that there is certainly continued controversy. The literature has been ambivalent on supporting and refuting the existence of nonceliac gluten sensitivity. But clearly, it exposes the need for more research in this area to really further elucidate the existence or the nonexistence of a nonceliac gluten sensitivity.

SPEAKER:

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