Study finds gastrointestinal symptoms in systemic scleroderma unrelated to disease-specific medications

8 November 2022

Illustration of bacteria in the human gut. Credit: Darryl Leja, National Human Genome Research Institute, National Institutes of Health

New research presented this week at ACR Convergence 2022, the American College of Rheumatology's annual meeting, found no clear association between immunosuppressive or anti-fibrotic medications and worsening gastrointestinal symptoms in early systemic scleroderma.

Gastrointestinal tract (GIT) symptoms are among the most common complications in systemic sclerosis (SSc, scleroderma), a disease marked by progressive vasculopathy and fibrosis.

Clinicians monitor seven GIT symptoms—reflux, bloating, diarrhea, constipation, fecal incontinence, and emotional and social well-being—using the University of California, Los Angeles Scleroderma Clinical Trials Consortium Gastrointestinal Tract Questionnaire (UCLA-GIT 2.0, GIT 2.0), a validated, patient-reported outcome measure. Yet distinguishing disease-related from iatrogenic symptoms can be challenging. This research focused on understanding the relationship of GIT symptoms to medication use.

The study included 399 participants in the Collaborative National Quality and Efficacy Registry (CONQUER) for Scleroderma, a platform that seeks to better understand the development of systemic sclerosis disease in patients less than five years from the first non-Raynaud's symptom. Patients included had completed at least two serial GIT 2.0 questionnaires.

They were categorized by total GIT 2.0 severity and further divided into subsets including no change (none-to-mild), improvement in category, worsening in category and no change (moderate-to-severe).

The researchers examined sociodemographics, disease characteristics and medication changes between care visits in each of these categories. Medications were categorized as GIT targeted therapy, anti-fibrotic (nintedanib only) and immunosuppressive or immunomodulatory (hydroxychloroquine only).

The data, examined in May 2022, showed that most participants (n=208 or 52%) had mild stable GIT symptoms. In all categories, reflux medication and immunosuppressives started before the baseline visit while anti-fibrotic medication occurred at or after it. Weight loss, reflux and promotility medications and particularly tobacco use increased the odds of a worse GIT score, but not anti-fibrotic or immunosuppressive drugs.

"It's surprising that medications commonly blamed for gastrointestinal tract symptoms did not actually result in symptomology," says Sarah Luebker, DO, a rheumatology fellow at Vanderbilt University Medical Center and the study's lead author.
"The significant odds ratio findings we noted for a worse GIT score include reflux or promotility drugs, but most fascinating is tobacco use, which is significantly associated with severe gastrointestinal tract symptoms. This has never been described before and highlights the value of tobacco cessation education. It may also speak to the value of understanding vasculopathy, which is a focus of the Vanderbilt SSc program."

Dr. Luebker stresses the importance of early patient referral to SSc Centers of Excellence and encourages junior investigators to partner with CONQUER investigators “to continue to use this valuable platform to further benefit SSc patients.”

**More information:** Conference abstract: [acrabstracts.org/abstract/the- ... ms-in-early-disease/](acrabstracts.org/abstract/the- ... ms-in-early-disease/)

Conference: [www.rheumatology.org/Annual-Meeting](www.rheumatology.org/Annual-Meeting)

Provided by American College of Rheumatology