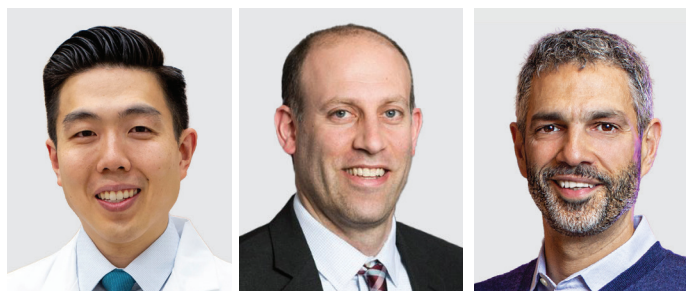


Editorial

# A Joint Effort: Improving the Identification of Spondyloarthritis in Patients With Inflammatory Bowel Disease



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In individuals with inflammatory bowel disease (IBD), extra-intestinal manifestations (EIMs) represent a significant burden of illness, with reported prevalence rates of up to 50%.<sup>1</sup> Of the various types of EIMs, the most commonly involved organ system is the musculoskeletal system. The 2 major clinical phenotypes are axial spondyloarthritis (axSpA) and peripheral SpA, which have been reported in up to 20% and 50% of patients with IBD, respectively.<sup>2,3</sup>

Despite the high prevalence of rheumatologic EIMs in IBD, no systematic method for screening of inflammatory arthritis is available for use in clinical practice. To date, only one of the major gastrointestinal societies (the European Crohn's and Colitis Organization) has published clinical guidelines on the management of EIMs, and the current United States–based guidelines on treatment of moderate to severe IBD do not include recommendations on the diagnosis or treatment of EIMs.<sup>4–6</sup>

Given the lack of standardized screening methods, various attempts have been made to improve the assessment of SpA in IBD populations. Two screening tools, the IBD Identification of Spondyloarthritis Questionnaire (IBIS-Q) and the Detection of Arthritis in Inflammatory Bowel Diseases (DETAIL) survey, have been developed to detect concurrent SpA in IBD, with reported sensitivities of over 75% for SpA.<sup>7,8</sup> In a pilot study assessing the feasibility of these screening tools, 112 consecutive patients with IBD at our institution completed both the IBIS-Q and DETAIL questionnaires, with 26% (N = 29) of participants

screening positive. Notably, 21% (8/29) of patients who screened positive did not report joint symptoms during their IBD clinical visit, indicating that a significant proportion of patients may go undiagnosed during routine gastroenterology follow-up.<sup>9</sup>

Numerous studies characterizing radiographic modalities performed for nonrheumatologic indications in patients with IBD have also confirmed the prevalence of subclinical or undiagnosed sacroiliitis. In a study by Paparo et al, radiologists reviewed 221 computed tomography (CT) enterography exams in patients with Crohn disease and found that 24% of patients had findings compatible with sacroiliitis, defined by the presence of erosions, subchondral sclerosis, joint space alteration (pseudo-widening), new cartilaginous or ligamentous bone formation (bony bridges), and ankylosis.<sup>10</sup> In a study by our group evaluating magnetic resonance enterography (MRE) imaging, Levine et al assessed 258 MRE scans and found that 17% of patients had radiographic findings of sacroiliitis.<sup>11</sup> Remarkably, of the included participants, only 16% reported back pain, indicating that the majority of patients had asymptomatic sacroiliac inflammation.<sup>11</sup>

This month in *The Journal of Rheumatology*, Lim et al report a single-center study assessing the utility of CT scans in identifying sacroiliitis in patients with established IBD.<sup>12</sup> Upon review of CT scans for 301 patients with IBD, 60 patients were found to have findings of sacroiliitis and were subsequently offered a formal rheumatologic assessment. Of these, 27 patients were enrolled in the study and 14 patients eventually underwent a structured clinical examination by a rheumatologist. Three patients (21%) were confirmed to have a new diagnosis of axSpA, whereas 11 patients (79%) were not. This study demonstrates, albeit with a limited sample size, the proof of concept that CT scans obtained for nonrheumatologic examinations can be useful in identifying a subset of patients for whom a rheumatologic assessment may detect undiagnosed axSpA.

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The authors declare no conflicts of interest relevant to this article.

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To expand screening strategies for SpA in patients with IBD on a large scale, however, a broader and more systematic approach must be developed. In an effort to address this need, the International Organization for the Study of Inflammatory Bowel Disease developed consensus recommendations for the diagnosis and monitoring of EIMs for inclusion in IBD clinical trials.<sup>13</sup> In this consensus meeting, which included 4 rheumatologists, 83% of attendees agreed that either a rheumatologist's expertise or the presence of inflammatory back pain with consistent MRI findings would be sufficient for the diagnosis of axSpA. For the diagnosis of peripheral SpA, there was unanimous agreement that a rheumatologist examination is required.

Numerous questions remain on how to best screen sizable populations of patients with IBD for underlying SpA in a manner that optimizes case detection rates while concomitantly avoiding an overburdening of rheumatologic referral clinics and services. Can a diagnostic algorithm incorporating CT or MR imaging allow nonrheumatologists to diagnose axSpA with sufficient accuracy? What is the optimal referral pathway to ensure a timely and accurate diagnosis of SpA, and what is the best way to monitor disease course and activity over time?

The diagnosis of SpA can be a challenging one, as it remains largely a clinical diagnosis without a gold standard biomarker or imaging test. This principle is also demonstrated in the study by Lim et al,<sup>12</sup> in which even among an expert panel of rheumatologists, the initial agreement on diagnosis was initially fair ( $\kappa = 0.30$ ) and increased to substantial ( $\kappa = 0.74$ ) only after group discussion. Future efforts to expand the detection of SpA in patients with IBD will continue to require close collaboration between gastroenterologists and rheumatologists to develop a screening strategy that is broadly applicable and feasible while providing sufficient diagnostic accuracy.

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