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The EXTENT Study: Results From an International Expert Delphi Consensus to Define Ultrasonographic Parameters for Measuring Bowel Damage in Crohn's Disease

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Abbreviations used in this paper: **BWT, bowel wall thickness; CD, Crohn's disease; CTE, computed tomography enterography; EXTENT, Calculating the LEmann indeX using inTEstiNal ulTrasound; GI, gastrointestinal; IBUS, International Bowel Ultrasound Group; IUS, intestinal ultrasonography; IV, intravenous; LI, Lémann index; MRE, magnetic resonance enterography; MRI, magnetic resonance imaging; SICUS, small intestinal contrast ultrasonography; SPIRIT, Selecting endPoInts foR disease-ModIfication Trial; STAR, Stenosis Therapy and Anti-fibrotic Research.**

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BACKGROUND & AIMS: **A primary aim in managing Crohn's disease (CD) is preventing bowel damage. The Lémann index (LI) quantifies structural bowel damage using magnetic resonance enterography (MRE) or computed tomography enterography (CTE) and, for colonic CD, colonoscopy. Intestinal ultrasonography (IUS) provides a noninvasive imaging alternative, although its role in LI assessment remains unexplored. This study aimed to establish a consensus on parameters and acquisition protocol for scoring small bowel and colonic damage using IUS in evaluating the LI.**

METHODS: **Thirty international experts in IUS and/or MRE participated in a 3-round Delphi process. Participants provided feedback and rated statements on IUS parameters and acquisition protocol in 2 online rounds. During the final in-person round, unresolved items were discussed and voted upon. Statements with at least 80% agreement were accepted.**

RESULTS: **Twenty-two statements reached a consensus: 10 defined IUS parameters for stricturing and penetrating lesions for scoring LI-IUS, and 12 addressed optimal IUS cineloop acquisition for centralized review. No consensus on IUS equivalents for grade 1 stricturing lesions in the small bowel and colon was reached.**

CONCLUSIONS: **Ultrasonographic equivalents for assessing small bowel and colonic damage in CD were derived to align with the validated LI criteria for MRE and colonoscopy. These statements mark the first phase of the EXTENT project, supporting the potential use of IUS in clinical practice and disease modification trials as an alternative tool for bowel damage assessment. The lack of consensus on grade 1 stricturing lesions suggests further exploration of IUS parameters is required.**

CLINICAL RELEVANCE: **This study supports intestinal ultrasonography as a promising tool for assessing bowel damage in Crohn's disease, providing an alternative to magnetic resonance imaging/computed tomography and colonoscopy. Implementing intestinal ultrasonography could diminish patient discomfort and expand its use in clinical practice and trials. However, the Lémann index-intestinal ultrasonography needs to be validated in the ongoing prospective multicenter EXTENT study (ClinicalTrials.gov, Number: NCT06647823).**

Keywords: Bowel Damage; Crohn's Disease; EXTENT; Intestinal Ultrasound; Lémann Index.

Crohn's disease (CD) is an inflammatory disorder of the gastrointestinal tract. It often leads to the development of irreversible bowel damage, manifested as strictures, fistulas/abscesses, and need for surgical intervention.[1–3] However, surgery is not curative, and the need for repeated interventions is common. The Selecting endPoInts foR disease-ModIfication Trials (SPIRIT) consensus proposed treatment targets for disease-modification trials and recommended using the Lémann index (LI) as the reference tool to assess bowel damage.[4] The LI is a validated tool that quantitatively assesses structural bowel damage over time in patients with CD (Table 1).[5] The LI calculation requires a detailed history of prior surgeries, combined with a morphologic assessment of the entire gastrointestinal (GI) tract, performed using magnetic resonance enterography (MRE) or computed tomography enterography (CTE) and clinical examination of the anus. Additional procedures like upper endoscopy, colonoscopy, or pelvic magnetic resonance imaging (MRI) may also be necessary, depending on the known or suspected location of the disease. The LI requires identifying and grading stricturing and penetrating lesions based on their severity as observed through MRE and colonoscopy (Table 1). However, the need for MRE in the LI calculation presents a potential barrier to widespread implementation due to cost, limited accessibility, and patient reluctance. CTE imparts a radiation dose to patients, and repeated use in CD is discouraged by international consensus groups.[6] Furthermore, both MRE and CTE ideally require injection of intravenous contrast medium to calculate the LI index. In patients with colonic involvement, a colonoscopy is required, which is an invasive procedure that requires bowel preparation and sedation and is usually poorly tolerated by patients.

The EXTENT (Calculating the LEmann indeX using inTEstiNal ulTrasound) project is a global initiative on behalf of the International Bowel Ultrasound Group (IBUS), aiming to assess suitability of intestinal ultrasonography (IUS) for the LI assessment. IUS is a noninvasive, low-cost, easily repeated, well-tolerated imaging modality that needs no preparation, and is an attractive alternative to MRE/CTE and potentially also to colonoscopy. Yet, its use in calculating the LI needs further assessment. Developing an IUS-LI to assess cumulative bowel damage in CD could expand the LI implementation in disease modification trials, prospective outcome studies, and real-world bowel damage monitoring, improving our understanding and evaluation of the natural history of CD progression.

As a first step in the EXTENT project, we aimed to conduct an international expert Delphi consensus to define the ultrasonographic parameters to be used to score small bowel and colonic damage (including stricturing and penetrating lesions) for calculating the LI-IUS.

What You Need to Know

Background

The Lémann index (LI) quantifies bowel damage in Crohn's disease using magnetic resonance imaging (MRI)/computed tomography (CT), colonoscopy, surgical history, and physical examination. Intestinal ultrasonography (IUS) offers an alternative, but its role in assessing the LI remains unclear.

Findings

An international expert consensus established ultrasonographic parameters for scoring bowel damage in Crohn's disease, potentially enabling IUS as a noninvasive alternative to MRI/CT and colonoscopy.

Limitations

No consensus was reached on the IUS equivalent for early-stage (grade 1) stricturing lesions in the small bowel and colon, highlighting the need for further research.

Methods

A 3-round modified Delphi consensus was established to obtain a CD small bowel and colonic damage assessment consensus using IUS (as compared with MRE/CTE and colonoscopy).[7] This 3-round modified Delphi process included a scientific literature review, 2 online voting rounds, and 1 in-person consensus meeting with live voting. The "Guideline Development Portal" from Clinical Guideline Services (www.guideline-services.com) was used to distribute all online surveys.

Scientific Review

A recently published systematic review on IUS parameters to define stricturing and penetrating complications in CD, performed by one of the Delphi participants (MP),[8] served as the basis for the preliminary statements. Before the first Delphi round, the systematic literature review was updated by CP and BV, and no new relevant literature was found. Data from the published systematic review[8] and the original MRE/CTE definitions from the validated LI[5] were used as background to draft the first consensus statements by the core panel (CP, BV, JT, CM, KN).

Participant Selection

Thirty-three experts contributed to this consensus (Supplementary Table 1): 3 experts involved in the development and validation of the original LI, 24 gastroenterologists, and 6 radiologists with IUS and/or MRE expertise. The 3 LI experts did not participate in the consensus voting but were fundamental for statement development and attended the kick-off and round 3 meeting for additional questions regarding the original LI.

An open call was sent to all IBUS members to invite IUS experts to participate in this project. All IBUS-certified applicants were selected based on IUS expertise, IUS research involvement, and diverse geographical location. Additionally, 6 expert radiologists in MRE and IUS were invited to join our panel. Finally, one Stenosis Therapy and Antifibrotic Research (STAR) consortium representative (FR) was invited to join the consensus group.

Delphi Rounds 1 and 2

Before the first voting round, an online kick-off meeting was organized with all the participants to discuss how the original LI was developed and validated. Training material (including a guide and a LI calculation template) was made available through an online platform. After attending the educational kick-off meeting in June 2023, all 30 voting experts were requested to anonymously score the 35 statements on a Likert scale from 1 (strongly disagree) to 5 (strongly agree) in October 2023. They were also requested to provide feedback on the available statements and to suggest missing items. Considering the comments and the results of the first voting round, the core panel revised the statements, removed 6 statements, and added 2 new statements to facilitate consensus. This revised set of 31 statements was distributed in December 2023 for a second online voting round in which all participants could rate on a Likert scale from 1 (strongly disagree) to 4 (strongly agree).

Delphi Round 3

The third round was an in-person meeting to facilitate personal discussion. It occurred in Sigtuna, Sweden, in February 2024. During the consensus meeting, the results of all statements were briefly presented by a moderator and discussed by all participating experts. Final modifications were made to certain statements when necessary and with general agreement. After each discussion, an immediate, live, anonymous voting round was conducted, closing once at least 90% of participating experts had submitted their scores. Statements that received a voting score of 'agree' or 'strongly agree' from >80% of the experts, either at an earlier voting round or in the final vote, were accepted. All statements of which consensus had been reached in the second round were shown for contextualization, with some minor editorial changes made.

Table 1. Stricturing Lesions, Penetrating Lesions, and Surgical Intervention Definitions for the Small Bowel and Colon in the Validated Lémann Index.[5]

Organ	Examination	No of segments	Segment	Grade 1	Grade 2	Grade 3
Stricturing lesions						
Small bowel	MRE or CTE	20	Each 20-cm segment	Wall thickening <3 mm or segmental enhancement without prestenotic dilatation	Wall thickening ≥3 mm or mural stratification without prestenotic dilatation	Stricture with prestenotic dilatation
Colon	MRE or CTE	5	Each segment	Wall thickening <3 mm or segmental enhancement without prestenotic dilatation	Wall thickening ≥3 mm or mural stratification without prestenotic dilatation or <50% of the lumen	Stricture with prestenotic dilatation or >50% of the lumen
Colon	Colonoscopy	5	Each segment	–	Lumen narrowing, passable	Stricture, nonpassable
Penetrating lesions						
Small bowel	MRE or CTE	20	Each 20-cm segment	–	Deep transmural ulceration	Phlegmon or any type of fistula
Colon	MRE or CTE	5	Each segment	–	Transmural ulceration	Phlegmon or any type of fistula
Colon	Colonoscopy	5	Each segment	Superficial ulceration	Deep ulceration	Fistula
Surgical intervention per organ						
Small bowel	Surgical intervention	20	Each 20-cm segment	—	Bypass diversion stricturoplasty	Resection (number of 20cm segments)
Colon	Surgical intervention	6	Each segment	–	Stomy Bypass diversion stricturoplasty	Total or partial resection (% of resection per segment)

CTE, computed tomography enterography; MRE, magnetic resonance enterography.

Ethical Considerations

No informed consent was required as all scores were submitted anonymously, and experts participated as advisors.

Statistical Analysis

Descriptive analysis was used to support each statement and to determine consensus. Categorical variables were expressed as frequency and percentage.

Results

Consensus Participants

The final consensus group was comprised of 30 voting participants from 17 countries (Supplementary Table 1).

Results of the Online First and Second Rounds

The first Delphi consensus round included voting on 35 statements. All 30 participants voted in the first online round. Consensus was reached in 29% of the statements (10/35) (Supplementary Table 2). The second voting round included 31 rephrased statements, which were evaluated by all participants. After the second voting round, consensus (>80% voting 'agree' or 'strongly agree') was reached in 65% of statements (20/31) (Supplementary Table 3). The statements where consensus was not reached were subsequently discussed and voted on during the third and final round.

Third Round

Two experts joined the third Delphi voting round meeting online, as they could not attend in person. One expert could not participate in the meeting due to acute illness. Eleven statements where consensus was not

reached in previous rounds were discussed and voted on (Supplementary Table 4). Three new statements were added for discussion in the third round following experts' suggestions during the second round (Supplementary Table 4). Two statements involving color Doppler achieved consensus in round 2. Still, they were eliminated from the final list because using color Doppler to calculate the LI-IUS did not reach the final consensus.

The 22 statements that achieved final consensus are outlined in Table 2. No consensus was reached regarding an IUS equivalent for grade 1 stricturing lesions both for the small bowel and colon, which are defined as "wall thickening <3 mm OR segmental enhancement, without prestenotic dilation" when they are assessed with MRE/CTE.[5]

Discussion

This study suggests an international expert consensus for ultrasonographic small bowel and colonic damage definitions, aiming to promote IUS for assessing bowel damage. Prior efforts to assess suitability of IUS to assess the LI have shown promising feasibility, suggesting it could be an alternative to MRE, CTE, and colonoscopy.[9,10] However, these studies lacked rigorous, standardized definitions for IUS parameters, and were conducted in a single-center setting, without broader international collaboration or consensus. This has hindered the wider adoption of LI-IUS, highlighting the need for more robust, multicenter studies, and expert-agreed definitions to validate IUS as a consistent tool for assessing bowel damage in CD for future disease modification trials.

We gathered a global panel of IUS and MRE experts, resulting in 22 consensus statements. These include IUS definitions for stricturing and penetrating lesions for LI-IUS scoring and guidelines for optimal IUS cineloop acquisition to harmonize procedures and enable central review.

Stricturing Lesions

Importantly, no consensus on IUS equivalents for grade 1 stricturing lesions in the small and large bowel was reached. The original LI defines these lesions as "wall thickening of less than 3 mm or segmental enhancement, without prestenotic dilatation" on MRE/CTE with intravenous (IV) and oral contrast. Although experts recognized that subtle changes captured using IUS in long-standing disease may indicate structural damage and indicate a grade 1 lesion, the lack of robust evidence prevented agreement. When the LI was developed over 10 years ago, the cutoff for normal bowel wall thickness (BWT) in MRE was less clearly defined.[2] Segmental enhancement, another grade 1 stricturing lesion component, requires IV contrast, which lacks an equivalent in noncontrast IUS. In the first 2 Delphi rounds, potential equivalents like color Doppler hypervascularization, abnormal motility, borderline increased BWT (2–3 mm), and prominent submucosal layer were suggested, but no consensus was reached. The most common IUS cutoff for abnormal BWT is >3 mm.[11,12] Although some experts considered BWT between 2 and 3 mm borderline pathological, others disagreed.

Ultimately, grade 1 stricturing lesions in IUS remain subjective and operator-dependent due to the lack of current evidence. The ongoing multi-center EXTENT study (NCT06647823) will generate cross-sectional, prospectively paired data on MRE, IUS, and endoscopy from the same patient, which might be able to address this question. Given that no consensus was reached on grade 1 stricturing lesions, the study will collect data on BWT, submucosal thickness, bowel wall vascularization, and small bowel motility to explore their equivalence to MRE findings. Despite the lack of agreement, grade 1 stricturing lesions will likely have a minor impact on the overall LI. This hypothesis will be further explored in both EXTENT and other ongoing studies.[13] Nevertheless, it is essential to note that grading stricturing lesions in the LI reflects varying damage progression severities, rather than the clinical definition of a stricture. Similarly, penetrating lesions in the LI, such as deep ulcers, differ from the clinical classification of penetrating CD, typically narrowed down to fistulas.

Similarly, no consensus was reached on the IUS equivalent for mural stratification in MRE for grade 2 stricturing lesions. Mural stratification, seen with IV contrast, reflects different enhancement patterns in inflamed bowel layers. As a result, the final definition for grade 2 stricturing lesions in IUS included only wall thickening. Submucosal thickening was suggested as an IUS equivalent[14] but was excluded due to insufficient evidence, standardization, and reproducibility.

Grade 3 small bowel stricturing lesions align with the standard definition of strictures with prestenotic dilation. A recent STAR consortium expert consensus, published after this Delphi consensus, defined small bowel strictures as a combination of bowel wall thickening, luminal narrowing, and prestenotic dilation.[15] No specific cutoff for prestenotic dilation was included in our consensus, as it is not part of the original LI.[5] Cutoffs of >25 mm or >30 mm are often cited in IUS literature.[8,14,15] Furthermore, prestenotic dilation is better visualized with oral contrast, which is used in MRE/CTE but not consistently in point-of-care IUS, potentially reducing accuracy. Although small intestinal contrast ultrasonography (SICUS) improves stricture detection by using oral negative contrast or polyethylene glycol before IUS,[8,14] it adds complexity and time. Contrast use should not be mandatory to keep the LI-IUS simple and patient-friendly. The description of V-shaped luminal distention was included to emphasize the characteristic IUS findings observed proximal to a fixed, narrowed

Table 2. Final List of Consensus Statements

IUS equivalent definitions for IUS-Lémann index	Agreement score %, (n)	Agreement round
Small bowel stricturing lesions in IUS		
1. The IUS equivalent for grade 2 small bowel stricturing lesion is wall thickening $\geq$ 3 mm, without prestenotic dilation.	86% (25/29)	Round 3
2. The IUS equivalent for grade 3 small bowel stricturing lesion is stricture with prestenotic dilation (V-shaped form).	93% (28/30)	Round 2
Colonic stricturing lesions in IUS		
3. The IUS equivalent for grade 2 colonic stricturing lesion is wall thickening $\geq$ 3 mm, without prestenotic dilation.	97% (28/29)	Round 3
4. The IUS equivalent for grade 3 colonic stricturing lesion is stricture with prestenotic dilation OR luminal narrowing >50% of the lumen (if total diameter of the lumen is assessable).	80% (24/30)	Round 2
Small bowel penetrating lesions in IUS		
5. There is no grade 1 small bowel penetrating lesion in IUS.	87% (26/30)	Round 2
6. The IUS equivalent for grade 2 small bowel penetrating lesion is transmural ulceration, defined as disruption of stratification transversely oriented within the thickened bowel wall (BWT $\geq$ 3 mm).	93% (28/30)	Round 2
7. The IUS equivalent for grade 3 small bowel penetrating lesion is an inflammatory mass, abscess, or any type of fistula.	100% (30/30)	Round 2
Colonic penetrating lesions in IUS		
8. There is no grade 1 colonic penetrating lesion in IUS.	93% (28/30)	Round 2
9. The IUS equivalent for grade 2 colonic penetrating lesion is transmural ulceration, defined as disruption of stratification transversely oriented within the thickened bowel wall (BWT $\geq$ 3 mm).	97% (29/30)	Round 2
10. The IUS equivalent for grade 3 colonic penetrating lesion is an inflammatory mass, abscess, or any type of fistula.	93% (28/30)	Round 2
Image acquisition		
General features		
11. Both low-frequency and mid- to high-frequency transducers should be used to assess IUS lesions for IUS-Lémann index.	87% (26/30)	Round 2
12. In the intestinal ultrasound examination for the evaluation of IUS-Lémann index, the individual should be, preferably, in a non-fasting state.	83% (25/30)	Round 2
Small bowel features		
13. A complete small bowel scan is needed to assess small bowel stricturing and penetrating lesions for the IUS-Lémann index.	93% (28/30)	Round 2
14. In nonoperated individuals, a cineloop starting in the terminal ileum at the right lower quadrant (including anatomical landmarks such as psoas muscle and/or iliac vessels) and following parallel lines along the abdomen (extending from the liver/stomach/ribs to the bladder/iliac vessels) is needed.	93% (28/30)	Round 2
15. For postoperative patients (small bowel resection or ileocolonic resection) a cineloop starting at the anastomosis and progressing proximally is needed. To ensure complete small bowel scan we recommend following parallel lines along the abdomen (extending from the liver/stomach/ribs to the bladder/iliac vessels).	97% (29/30)	Round 2
16. A complete small bowel scan is needed to estimate small bowel disease extension for the IUS-Lémann index.	93% (28/30)	Round 2
17. All pathological small bowel segments identified during the examination need to be recorded in a longitudinal section to allow for disease extension measurement, with a cineloop of 5 to 10 seconds, preferably with a mid- to high-frequency probe, if the complete segment can be visualized.	100% (30/30)	Round 2

Table 2. Continued

IUS equivalent definitions for IUS-Lémann index	Agreement score %, (n)	Agreement round
18. Every pathological small bowel segment should also be recorded in cross-section with a cineloop of 5 to 10 seconds.	87% (26/30)	Round 2
19. If small bowel motility should be assessed, an additional cineloop of 10 to 60 seconds in every pathological small bowel segment should be recorded, preferably with a breath hold.	90% (27/30)	Round 2
20. Small bowel labeling: if more than one pathological 20-cm small bowel segment is found, they should be labeled as SB1 (beginning in the ileocecal valve or ileocolic anastomosis), SB2, SB3, etc, preferably adding a body marker OR text for location (ex: LLQ, RUQ).	96% (27/28)	Round 3
Colonic features		
21. Every colonic segment should be recorded in both cross-sectional and longitudinal planes, with a cineloop of 5 to 10 seconds.	83% (25/30)	Round 2
22. The cecum corresponds to the colonic segment distal to the ileocecal valve. For anatomical reference, the cineloop should include, if possible, the terminal ileum, the ileocecal valve, and the appendix (if accessible).	96% (26/27)	Round 3

NOTE. Agreement score = "agree" + "strongly agree"
BWT, bowel wall thickness; IUS, intestinal ultrasonography; LLQ, left lower quadrant; RUQ, right upper quadrant; SB, small bowel.

luminal segment during a peristaltic wave in small bowel strictures. This is consistent with the definition proposed by the recent expert consensus,[15] which includes an increased luminal diameter relative to adjacent normal bowel loops.

The definition of colonic strictures using either IUS or CTE/MRE is scarce in the current literature.[16,17] In the validated LI, grade 3 colonic stricturing lesions also include a luminal narrowing definition. Although we realize IUS might not easily assess this due to air inside the colon, thus hindering total luminal diameter assessment, we decided to keep the luminal narrowing >50% definition. However, this can only be evaluated if the total luminal diameter of adjacent normal bowel is assessable.

Penetrating Lesions

In the original LI, grade 1 penetrating lesions correspond to superficial ulcers identified on colonoscopy. As there is no defined grade 1 penetrating lesion for MRE, no corresponding classification exists for IUS either. For grade 2 penetrating lesions, transmural ulceration in IUS was defined as a disruption of bowel wall stratification (BWT ≥3 mm), either focal or extensive, appearing as hypoechoic or hyperechogenic changes extending from mucosa to muscularis propria. For grade 3 lesions, the term "phlegmon" was replaced with "inflammatory mass or abscess" based on recent ECCO-ESGAR guidelines.[11]

Image Acquisition

For central review, more evidence is needed on optimal IUS imaging and cineloop acquisition.[18] This project aimed to establish expert consensus on recording methods for LI-IUS calculation. Given that LI assesses bowel damage, including more profound penetrating complications, the panel agreed to begin scanning with a low-frequency probe. A mid-to-high frequency probe provides better resolution, and if it offers a full assessment, the low-frequency probe may not be needed.

We also agreed that IUS should ideally be performed in a nonfasting state to help identify strictures and prestenotic dilation. Fasting, however, may reduce bowel air and improve visualization.[19] Moreover, fasting for more than 6 hours is recommended for the optimal assessment of small bowel motility.[19] The rationale for asking the patient to be nonfasting is to have luminal content to help identify strictures and prestenotic dilation, because using SICUS was not considered for evaluating LI-IUS. The time since the last meal and type of meal should be recorded during point-of-care exams, which will be further assessed in the prospective EXTENT study.

The best technique for small bowel scanning still needs to be validated and is based on expert opinion. We agreed that for nonoperated patients, scanning should begin at the terminal ileum in the right lower quadrant and proceed across the abdomen. In postoperative patients, scanning should start at the anastomosis and progress proximally. A cineloop of 5 to 10 seconds in a longitudinal section was recommended for assessing small bowel disease extension, with longer cineloops (10–60 seconds) for motility, ideally with breath-holding.

We also emphasized the importance of capturing longitudinal and cross-sectional planes for pathological segments and properly labeling cineloops for central review. Correct identification of 20-cm small bowel segments is key for LI, and a specific protocol for evaluating the cecum separately from the ascending colon was included, given that the cecum is reported separately from the ascending colon in the original LI.[5]

Key strengths of this study include its diverse, global expert representation in IUS, MRE, and the LI. Furthermore, this study followed a rigorous methodology with predefined consensus criteria. Nevertheless, this consensus has some limitations, primarily due to scarce evidence in the literature. Although consensus statements can provide valuable expert insight, especially in areas where evidence is limited, it is essential to interpret these recommendations within the context of their methodological constraints and recognize the potential for bias. Furthermore, the fact that most IUS experts involved in this consensus were IBUS-certified may limit the generalizability of the results. Although the original LI assesses global bowel damage, the current consensus focuses on whether IUS can replace MRE/CTE and possibly colonoscopy for small bowel and colonic damage. Point-of-care IUS is most effective for these areas, so the upper gastrointestinal tract, rectum, and perianal regions, which are not well-assessed by transabdominal ultrasound, were excluded. If LI-IUS correlates well with LI-MRE, it should apply to most clinical cases, as upper GI involvement in adult CD is limited and not routinely assessed.[6]

Conclusions

In conclusion, this Delphi consensus highlighted additional bowel wall damage features beyond the MRE and endoscopic criteria in the original LI, which warrant investigation in future studies. Our consensus forms the basis for the next phase of the EXTENT project, where LI-IUS will be applied in a prospective cohort and compared with LI-MRE, with or without colonoscopy. This rigorous methodology aims to establish LI-IUS as a reliable tool for assessing cumulative bowel damage, facilitating its use in disease modification trials and prospective studies. Affirming LI-IUS can have significant clinical implications for CD monitoring, with a focus on disease progression in line with the SPIRIT recommendations.[4] By offering a less invasive, point-of-care, inexpensive, and more accessible option than MRE/CTE or colonoscopy, LI-IUS could increase the adoption of longitudinal bowel damage assessment, paving the way for its use as a validated endpoint in future trials and real-world disease monitoring. This would ultimately enhance our ability to track and modify the natural history of CD.

Supplementary Material

NOTE: To access the supplementary material accompanying this article, visit the online version of *Clinical Gastroenterology and Hepatology* at www.cghjournal.org, and at https://doi.org/10.1016/j.cgh.2025.07.024.

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Data Availability
The authors confirm that the data supporting the findings of this study are available within the article and its supplementary materials. Further enquiries should be forwarded to the corresponding authors.