## Transmural Healing and Long-Term **Outcomes in Crohn's Disease (CD)**

## The Importance of Assessing Transmural Inflammation in CD

- Transmural inflammation can lead to lymphedema and thickening of the bowel wall and mesentery. Over time, extensive inflammation may result in hypertrophy of the muscularis mucosae, fibrosis, and strictures.1
- Mucosal healing assessed by endoscopy is a current long term treatment target in CD.<sup>2</sup> However, endoscopy is limited to intraluminal assessment.<sup>2,3</sup> Although not a formal treatment target in CD, evidence suggests that transmural healing may lead to better outcomes for patients with CD.2,4
- IUS, CT, CTE, MRE and MRI can detect transmural inflammation and healing.2,4-6



## Transmural Healing May Lead to Better Outcomes in Patients With CD

In a retrospective study, transmural healing was evaluated over a 7 year period and defined as a combination of endoscopic mucosal healing and MRI healing

Patients with transmural healing were



to experience bowel damage progression than those with endoscopic mucosal healing alone (HR=0.05 [0.00-0.40], p=0.002)<sup>2</sup>

In a separate retrospective study of 202 patients over ~3 years, transmural healing and inflammation were assessed by IUS. Transmural healing was associated with better long-term outcomes in CD<sup>4</sup>

Presence of transmural healing was significantly associated with a longer duration of survival without medication escalation or corticosteroid use<sup>4</sup>





The median time to medication escalation was 3 years in patients who experienced transmural healing and 1.1 years for patients who did not<sup>4</sup>

Presence of transmural healing was associated with increased duration of hospitalization-free survival and surgery-free survival<sup>4</sup>





## Transmural healing:

- Is evaluated by cross-sectional imaging<sup>2,4-6</sup>
- Is associated with decreased likelihood of bowel damage progression<sup>2</sup>
- May decrease needs for medication dose escalation and steroids<sup>4</sup>
- May decrease healthcare resource utilization<sup>4</sup>

erransmural healing: BWT <3 mm without hyperemia on color Doppler, inflammatory fat, or disrupted BWS. <sup>b</sup>Inflammation: abnormal BWT and/or hyperemia and/or abnormal BWS

