Characterization of abdominal pain response in patients with diarrhea-predominant irritable bowel syndrome (IBS) treated with rifaximin

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Purpose: IBS is characterized by recurring abdominal pain associated with defecation or changes in bowel habits. IBS is further subcategorized based on the predominant bowel habit (eg, diarrhea-predominant IBS [IBS-D]). Abdominal pain is a key symptom in the diagnosis of IBS; it is also the most common reason individuals see a healthcare provider. The nonsystemic antibiotic rifaximin is approved for the treatment of adults with IBS-D, and its efficacy may be related to beneficial effects on the gut microbiota. This post hoc analysis of a phase 3 trial characterized the impact of a 2-week course of rifaximin on IBS-related abdominal pain.

Methodology: Adults with IBS-D with a mean abdominal pain score of at least 3, after a screening phase with placebo, received open-label rifaximin 550 mg three times daily for 2 weeks. Abdominal pain scores were assessed by patient response to: “In regards to your specific IBS symptom of abdominal pain, on a scale of 0–10, what was your worst IBS-related abdominal pain over the last 24 hours?” Abdominal pain responders were defined as patients with ≥30% improvement in the weekly mean abdominal pain score during ≥2 weeks of the first 4 weeks post-treatment. Time to abdominal pain recurrence (<30% improvement in weekly mean abdominal pain score for ≥3 weeks during a rolling 4-week consecutive period [additional 18 weeks of follow-up]) was assessed.

Results: 2579 adults (mean age [SD], 46.4 [13.7] y; 68.2% female; mean daily abdominal pain score [SD], 5.5 [1.7]) were treated with rifaximin. The mean abdominal pain score (SD) at 4 weeks post-treatment for all enrolled patients was 3.6 (2.4), with a change from baseline of -1.9. A total of 1384 (56.8%) of 2438 evaluable patients were abdominal pain responders. During up to 18 weeks of additional follow-up (ie, 22 weeks post-treatment), 382 (35.6%) of 1384 patients did not experience recurrence and maintained abdominal pain response. The median time to abdominal pain relapse was 14.0 weeks. In abdominal pain responders, mean change from baseline in mean daily abdominal pain scores, assessed weekly, ranged from an improvement of -3.3 to -2.7 during the additional 18 weeks of follow-up.

Implications: Data support that short (2week) course therapy with rifaximin for IBS-D can improve abdominal pain symptoms and provide durable response (median, 3.5 months) post-treatment. Healthcare providers should evaluate abdominal pain in adults with IBS-D and develop an ongoing management plan to help improve this key symptom.

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