Prevalence and impact of inflammatory bowel disease-irritable bowel syndrome (IBD-IBS) on patient reported outcomes in CCFA Partners

Maisa Abdalla, Robert S Sandler, Michael D Kappelman, Christopher F Martin, Wenli Chen, Kristen Anton, and Millie D Long

Background: Patients with inflammatory bowel disease (IBD) commonly have symptoms of diarrhea and abdominal pain. These symptoms can be related to ongoing inflammation, or alternatively, to an overlap of IBD and irritable bowel syndrome (IBD-IBS). Limited data are available on how IBS impacts the individual IBD patient’s care and functional status. In this study we aimed to evaluate the prevalence of IBD-IBS within the CCFA Partners cohort and investigate the impact of this diagnosis on various patient-reported outcomes, including measures of functional status, and specific medication utilization such as narcotic use.

Method: CCFA Partners is an ongoing Internet-based cohort study established in 2011, with over 14,000 patients currently enrolled. We performed a cross-sectional analysis on the subset of patients within the CCFA Partners who answered the question about concomitant IBS diagnosis (n=6309). We used bivariate analyses to investigate associations between IBD-IBS and a number of demographic and IBD-related variables stratified by disease subtype (Crohn’s disease (CD) and ulcerative colitis/indeterminate colitis (UC/IC). We then used logistic regression models to investigate independent associations between IBD-IBS and various patient-reported outcomes (anxiety, depression, sleep disturbances, pain interference and social satisfaction).

Results: A total of 1279 (20%) patients reported a co-existing IBS diagnosis after their IBD diagnosis. The prevalence of IBD-IBS in this cohort was similar within disease subtypes, 20% for CD and 21% for UC/IC (p= 0.49). In both CD and UC/IC, a diagnosis of IBD-IBS was significantly more common in women, among those with higher body mass index, and lower education levels. Measures of quality of life, as measured by short inflammatory bowel disease questionnaire (SiBDQ) were lower in patients with IBD-IBS compared to those without, for both CD and UC/IC (means of 4 vs. 5 (p <0.001) and 4.7 vs. 5.2 (p <0.001, respectively). Rates of narcotic use were higher amongst those with an IBD-IBS diagnosis as compared to those without, for both CD and UC/IC (17% vs.11% (p <0.001) and 9% vs. 5% (P <0.001), respectively). Disease activity, as measured by short Crohn’s disease activity index (sCDAI) and simple clinical colitis activity index (SCCAI), also correlated with IBD-IBS diagnosis. IBD-IBS diagnosis was an independent predictor for anxiety (OR 1.54, 95% CI 1.33-1.78), depression (OR 1.49, 95% CI 1.30 -1.70), fatigue (OR 1.47, 95% CI 1.26 -1.70), sleep disturbances (OR 1.66, 95% CI 1.43-1.92), pain interference (OR 1.73, 95% CI 1.50 -2.00), and decreased social satisfaction (1.47, 95% CI 1.28 -1.68). Analyses were repeated within strata of disease activity, with similar results.

Conclusion: The sex-adjusted IBS prevalence in this cohort of IBD patients is 75% higher than IBS prevalence in the general US population, 19% vs. 11%. IBD-IBS diagnosis was associated with increased narcotic use and adverse patient-reported outcomes when compared to IBD patients without this
diagnosis. IBD-IBS diagnosis may negatively impact an IBD patient’s care and functional status. Appropriate diagnosis, treatment, and counseling may help improve the functional status of IBD-IBS patients and decrease narcotic use in this population.

References:

