BACKGROUND: IBD comprises Crohn's disease (CD) and ulcerative colitis (UC), both are characterized by unpredictable exacerbations and remissions. The incidence is highest in adolescence and early adulthood, and unlike other chronic diseases, it can have a considerable impact upon patients’ HRQoL. Few studies assessing HRQoL have been performed in adolescents and young adults (AYA) with IBD. Our objectives were to assess the health-related quality of life (HRQoL) in AYA patients with inflammatory bowel disease (IBD) and analyze the diseases factors that could influence it.

METHODS: 59 AYA IBD patients (13-25y) at two gastroenterology units of tertiary hospitals was evaluated and compared to 60 AYA healthy controls (13-25y). 59 AYA IBD patients completed the Pediatric Quality of Life Inventory 4.0 (PedsQL®-4.0), Short Form Health Survey (SF-36) questionnaires and Pain Visual Scale, according to age. After we compared HRQoL between Crohn’s disease (CD) vs. UC (ulcerative colitis) in AYA population. The demographic data, extra-intestinal manifestations, overlap syndromes, disease active status, treatment and outcomes were also evaluated. All participants and the adolescents’ legal guardian written informed consent form.

RESULTS: PedsQL-4.0 domain ‘school’ work’ and SF-36 domain ‘general health perception’ was reduced in IBD AYA patients compared with healthy controls (P<0.05). In addition, significantly lower score “health change” in SF-36 in comparison with healthy determined perceived differences in state of health over the past year. No difference in other’s domains and pain scale was observed between CD and UC AYA patients. Disease activity as well extra intestinal manifestations, overlap syndromes, treatments and outcomes did not influence the HRQoL of the AYA patients. Autonomic immune cholinergic and the use of prednisone were significantly higher among UC patients, whereas previous gut surgery was higher between CD patients. However, these disease factors did not significantly influence the HRQoL between CD vs UC. Mann-Whitney test and Fisher's test were used to compare continuous variables and comparison between groups, P<0.05. Ozanimod is an orally-administered sphingosine-1-phosphate (S1P) receptor modulator, which raises the question and concern of how IBD patients managed their disease during this pandemic. Our study evaluated a cohort of patients with moderate-to-severely active UC and seeking to improve their well-being and quality of life (QoL) in a period of stress and uncertainty due to the COVID-19 pandemic.

CONCLUSION: HRQoL was significant lower for AYA with IBD relative to healthy controls. This result highlights areas to focus clinical attention in adolescents and young adult patients with IBD for assessment and future interventions.

P011 The Influence of COVID-19 on Inflammatory Bowel Disease-Related Search Trends

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BACKGROUND: The novel SARS-CoV-2 Coronavirus pandemic has had significant global impact on health care. The pandemic’s effect on patients with inflammatory bowel disease (IBD) is unknown, and health care delivery to this largely immunocompromised population is of concern, as many patients refrained or were unable to seek in-person medical care. We noticed there was a decrease in IBD related Emergency Department (ED) visits. Thus, we aimed to explore how the pandemic influenced IBD specific search trends in Google. We predicted more patients would search for symptoms or medications using Google in order to self-treat or seek care.

METHODS: Using Google Trends (GT), we queried Crohn’s Disease (CD) or Ulcerative Colitis (UC) in combination with IBD-related symptoms (i.e. bleeding, rectal bleeding, abdominal pain and diarrhea) or medications (i.e. infliximab and prednisone) between January 1 and April 30 of the years 2018 to 2020. Frequencies of the specific search terms were compared to the site’s relative search volume over weekly and monthly intervals. IBD related ED visits were also collected from July 2018 to July 2020. Data was analyzed using monthly and weekly mean search scores compared across years and through 2020 using ANOVA with post-hoc Tukey adjustment for multiple comparisons.

RESULTS: There were decreased search scores for bleeding and rectal bleeding with IBD terms occurring during March and April of 2020 compared to years prior but not abdorninal pain or diarrhea. The bleeding plus CD/UC queries saw the largest variation in 2020 (CD F = 19.18 with (2.89, df = 0.0001), UC F = 14.08 with (2.89, df = 0.0001)). For April 2020, medication search terms for infliximab + CD + UC were significantly decreased (F = 47.73 with (2.89, df = 0.0001)) but not for infliximab CD (F = 3.08 with (2.89), P = 0.051) Prednisone searches also significantly decreased with CD and UC during this time period. In terms of IBD related ER visits, there were 84 in 2018, 99 in 2019, and 15 in 2020. The average quarterly visits in the 30 months preceding Covid was 22.5, while there was only one visit in quarter two of 2020. From March 2020 to July 2020 there were only 4 ED visits total.

CONCLUSION: Assuming the global pandemic was the main influence of GT during March and April 2020, it appears that some IBD-related searches were significantly reduced compared to pre-pandemic levels, while others did not change. It is possible that patients utilized other services like patient portals and telehealth to communicate with providers instead of Google searches. Interestingly, IBD related ED visits were reduced during the peak of the pandemic, which raises the question of concern of how IBD patients managed their disease during this time. Limitations include the non-specificity of querying a search engine which may not reflect the habits of confirmed diagnosed IBD patients. Further research should investigate how patients cared for themselves during the pandemic. It will be important to continue to monitor the trend in IBD related utilization of the healthcare system as cities and IBD centers start to reopen to safely and effectively deliver care.

P012 Ozanimod Reduced Fecal Calprotectin Levels in Patients with Ulcerative Colitis in the Phase 3 True North Study

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BACKGROUND: Ozanimod is an orally-administered sphingosine-1-phosphate (S1P) receptor modulator that binds with high affinity to S1P1 and S1P3 receptor subtypes. Ozanimod demonstrated efficacy and safety for up to 52 weeks of treatment in patients with moderately-to-severely active ulcerative colitis (UC) in the double-blind, randomized, phase 3 True North study. Fecal calprotectin (FCP), which occurs as a consequence of neutrophils in the gastrointestinal tissue from an inflammatory process, is strongly correlated with endoscopic activity in UC. The aim of this analysis was to assess the change in FCP in a prespecified biomarker analysis of patients in the True North study.

METHODS: True North was a randomized, double-blind, placebo-controlled study evaluating the efficacy and safety of oral ozanimod (HCl 1 mg/day (equivalent to ozanimod 0.92 mg) vs placebo once daily over a 10-week induction period and a 42-week maintenance period in patients with moderately-to-severely active UC. In the induction period, patients in Cohort 1 were randomized to receive double-blind ozanimod or placebo and patients in Cohort 2 received open label ozanimod. Patients in either cohort who responded to ozanimod at week 10 were re-randomized to receive double-blind ozanimod or placebo for the maintenance period up to week 52. FCP was assessed at baseline, week 10, and week 52. The proportion of patients with FCP response stratified by baseline FCP was evaluated at weeks 10 and 52.

RESULTS: At baseline, mean FCP levels were 2519 μg/g in patients randomized to ozanimod (n = 422) and 3440 μg/g in those randomized to placebo (n = 214) in Cohort 1. A total of 451 patients who responded to ozanimod in the induction period (Cohort 1 and Cohort 2) were re-randomized in the maintenance period and had FCP data; 226 continued to receive ozanimod (mean baseline FCP, 2284 μg/g) and 225 received placebo (mean baseline FCP, 2987 μg/g). FCP levels were significantly improved with ozanimod vs placebo in both induction and maintenance periods. Mean (SD) change in ln-transformed ozanimod vs placebo was -470.2 ± 1608.9 μg/g vs 21.1 ± 7918.3 μg/g at week 10 (P = 0.002) and -1575.1 (± 4427.9) μg/g vs -463.4 ± 3177, respectively, at week 52 (P = 0.019). Of patients with elevated FCP at baseline using cutoffs of >50 and >150 μg/g, significantly more patients had reduced FCP levels below those respective cutoffs at week 10 with ozanimod vs placebo: 21% vs 6% and 33% vs 12%, respectively (P < 0.001). In addition, baseline FCP >50 and >150 μg/g at baseline was predictive of patients with elevated FCP at week 52 who remained on ozanimod were significantly more likely to have FCP levels below these cutoffs vs those clinical responders re-randomized to placebo, 46% vs 24% and 57% vs 38% for baseline FCP >50 and >150 respectively (P < 0.01, both).

CONCLUSION: In patients with moderately-to-severely active UC, ozanimod led to significant reductions in FCP during induction and maintenance therapy, with a greater proportion of patients achieving FCP response with ozanimod vs placebo across multiple baseline FCP cutoffs. These results are consistent with the inhibition of inflammation in the gut by ozanimod in patients with moderate-to-severe UC.