BACKGROUND: Crohn’s disease (CD) patients present characteristic abnormalities in the mesenteric adipose tissue (MAT) near the affected intestinal area. The MAT is thickened and wraps around the bowel circumference (1). Recent evidence indicates that this tissue plays a role in storing memory immune cells and potentially supporting antigen-driven immune responses. (2) Therefore, the gut microbiota almost certainly modify the microRNA (miRNA) profile of the MAT of CD patients. The purpose of this study was to profile and validate the expression of a miRNA signature in patients with Crohn’s disease and control patients (CTR).

METHODS: A prospective observational, cross-sectional study was performed in 60 patients (30 CD patients and 30 CTR patients). The CTR group consisted of 15 patients operated on for other diseases, except IBD. The study was approved by the Research Ethics Committee. The CTR group consisted of 15 patients operated on for other diseases, except IBD. The study was approved by the Research Ethics Committee.

RESULTS: RNAseq identified a significant increase in miR-650 expression in the MAT of the CD group compared to the CTR. (FDR = 23.45; P < 0.01). Among the 227 downregulated genes, 25 were validated by in silico analysis as a predicted target for miR-650. The enrichment analysis of metabolic pathways containing the miR-650 target genes indicated the metabolic pathway of alanine, aspartate and glutamate. GFPT2 and ALDH4A1 were identified as miR-650 target genes of this enriched pathway. The biological validation by RT-qPCR confirmed significant increased miR-650 expression in the MAT of the CD group compared to the CTR (P < 0.006). The miR-650 levels in the MAT of CD patients strongly correlated with the presence of the post-operative disease recurrence in the first 36 postoperative months (Spearman’s Rho = 0.68; Confidence Interval 95%; P = 0.045).

CONCLUSION: First, the modulation of miR-650 and its target genes (ALDH4A1 and GFPT2) were validated in the MAT of CD patients. It is possible that predictive risk factors may be identified through this microRNA signature. Additionally, the association between the miR-650 level and post-operative recurrence may be confirmed. The identification of miRNA as a potential biomarker for the prediction of post-operative recurrence in patients with CD may contribute to the development of new therapeutic strategies for these patients.
BACKGROUND: Pediatric inflammatory bowel disease (PIBD) is a diagnostic which comprises three subtypes: Crohn’s Disease (CD), Ulcerative Colitis (UC) and IBD-unclassified (IBD-U) (Levine, 2016). Primary definitions of its phenotypes (Levine, 2011) there is still a lack of studies in the Brazilian pediatric population.

METHODS: Records from three reference centers from a city at the south of Brazil were researched and 96 patients with PIBD were identified. We aimed to describe clinical aspects in this population with PIBD. Patients were seen between 2014 and 2019 and data regarding disease aspects were collected. Statistical data analysis was performed using SPSS22.0 (IBM,Armonk,NY,USA). For all analyses, P < 0.05 was considered significant.

RESULTS: Ninety-six patients (51% females) with PIBD were included, 58.3% of these had CD, 34.6% had UC and 7.3% had IBD-U. Median time from initial symptoms to diagnosis was 11 months in CD and 12 months in UC. Mean age at diagnosis was 9.7 years (±4.5) for CD and 10.9 years (±4.2) for UC. 58.2% of the patients with CD were classified as AIB of Paris. Clinical score severity (PCDAI or PUCAI) was not associated with time until diagnosis, gender, or age of onset. Change from initial diagnosis was observed in 12.5% of patients with CD and 6.1% with UC. The most frequent symptoms presented at diagnosis were diarrhea (77.8%), abdominal pain (64.4%) and rectal bleeding (56.9%). Rectal bleeding was significantly more frequently observed in UC (90.6%) than CD (56.9%) - P = 0.003. Anemia was statistically associated with bloody diarrhea (P = 0.039). Although weight loss was frequently observed (Table 1), most patients did not present with growth retardation (23.6% in CD and 12.1% in UC). Regarding disease localization, 16.4% of patients with CD presented with Paris L1 subtype (distal 1/3 ileum ≤ 50 cm) and 8.9% with Paris L2 subtype (distal 1/3 ileum > 50 cm). Regarding disease behavior, 71.4% of patients with CD presented Paris B1 (non-stricturing, non-penetrating), 7.3% Paris B2 (stricturing), 19.6% Paris B3 (penetrating) and 1.8% Paris B4. As expected, colon and rectal disease was more frequently observed in UC than CD (P < 0.001). Median number of surgery procedures was 1 for both CD and UC. The hospital admissions median was 5 for “Crohn’s disease” and 2.4 for “ulcerative colitis”.

CONCLUSION: Median age of diagnosis was similar both in CD and UC. CD was more frequently observed (Table 1). Most patients did not present early symptoms (Table 1). The most common symptoms were diarrhea, abdominal pain and bloody diarrhea. The most frequent extra-intestinal manifestations observed were weight loss and anemia. Anemia was associated with occurrence of bloody diarrhea, indicating loss, not consumption, in most cases. Twenty-four percent of patients with CD presented either with strictureting or penetrating disease, highlighting severity in the pediatric population. About 20% of the patients with UC had extra-intestinal manifestations.

P065
Inflammatory Bowel Disease or Bowel Endometriosis? Two Cases of Large Bowel Obstruction
Shirley-Ozum Jenner1, Lydia Morgan2, Aishburn Jean1
1Wake Forest School of Medicine, Winston-Salem, United States.

CASE: Endometriosis, endometrial glands and stroma outside of the uterus, may occur in diseases like inflammatory bowel disease, with a common presentation of intestinal obstruction, and it is important for clinicians to recognize it (Levine, 2011). There is still a lack of uniformity in the management of these diseases with a goal of understanding the changes in their behavior and relation to demographic factors affecting IBD population distribution, with the objective of proposing earlier and more effective interventions. Objective: The aim of this study is to evaluate IBD-related hospitalizations in Brazil, geographical distribution, time trends, and mortality associated with surgical procedures.

METHODS: Data from hospital admission registries, available in the Brazilian health system national bank (DATASUS), were retrospectively collected, regarding IBD-related hospitalizations (identified using ICD-10), frequency of hospitalizations, surgeries, and deaths related to surgical procedures, as well as sociodemographic data, from January 2005 to December 2015.

RESULTS: Hospitalization rates in Brazil decreased by 24% in the analyzed period, and proportion of surgeries related to IBD decreased by 35.2%. The largest proportion of surgeries occurred in Crohn’s disease (CD) patients, mostly young adults (age 20–39 years followed by 40–59 years) and female patients. Enterectomy was the most performed surgery. Surgical mortality decreased by 46% (19.8% in 2005 to 10.6% in 2015). The most economically developed regions of the country and metropolitan integrated municipalities presented the highest hospitalization and surgical rates. The poorest municipalities and non-integrated metropolitan municipalities presented the highest mortality rate related to surgery.

CONCLUSION: Brazil follows the global decrease in surgical procedures, mortality and hospitalizations related to IBD. Moreover, the observed distribution of hospitalizations and surgeries was unequal, prevailing in the wealthiest and more developed regions. Early diagnosis and referral to a specialized gastroenterologist for a structured management plan may contribute to a reduction of surgical hospitalization and mortality rates related to IBD. Brazil, a continental country, with distinct geographic areas and socioeconomic disparities, needs a more integrated health system, with better distribution of IBD referral services.

P067
Cannabis Use and Crohn’s Disease: An Analysis of Online Patient Resources
Gupta Simran1, Atienza Matthew1, Houle Matthew2, Hennessy Megan1, Rao Sanjana1, Borum Matt1.
1George Washington University School of Medicine, Washington, United States.

BACKGROUND: There is considerable interest surrounding cannabis and cannabinoid derivatives as potential therapeutic option for gastrointestinal disorders. It has been reported that patients with inflammatory bowel disease are increasingly incorporating cannabis products into their treatment regimens. This increase is largely legitimized and available through online search. However, there is limited information about the quality and readability of cannabis use (30.68% vs 75%) analysis revealed a lack of potential adverse effects of cannabis use (30.68% vs 75% (P = 0.0024) and less likely to acknowledge areas of uncertainty (47.73% vs 83.33%, P = 0.0009). 34% of the websites mentioned shared decision making with a medical provider, with no significant difference between consumer and professional websites (P = 0.6023).

CONCLUSION: This study illustrates the potential shortcomings of online resources addressing cannabis use in Crohn’s disease, specifically with regards to readability, quality, and bias. The majority of websites were directed toward consumers. However, the average readability of both consumer and professional websites was 12th grade level which exceeds the NIH recommended sixth grade level of reading level for medical information. It is important to note that the validated Flesch-Kincaid Grade Level Calculation determined readability. The validated DISCERN questionnaire was used to obtain the available websites. Websites were excluded if it was an inappropriate format (i.e. blog posts, general webpages, advertisements), inaccessible, or not specific for Crohn’s disease. Sites were categorized by intended audience: professional or consumer. The validated Flesch-Kincaid Grade Level Calculation determined readability. The validated DISCERN questionnaire determined quality, with scores rated as Good (56-75), Fair (36-55), or Poor (<36). The DISCERN quality score was 44.04 (57.17 for professional sites vs 42.31 for consumer sites) with no significant difference between website categories. Consumer sites compared to professional sites were less likely to report potential adverse effects of cannabis use (30.68% vs 75% (P = 0.0024) and less likely to acknowledge areas of uncertainty (47.73% vs 83.33%, P = 0.0009). 34% of the websites mentioned shared decision making with a medical provider, with no significant difference between consumer and professional websites (P = 0.6023).

P068
Therapeutic Aspects in Pediatric Inflammatory Bowel Disease – A Multi-Centric Study From Brazil
Bordim Jaqueline1, Coronel Juliana2, Batista dos Santos3, Dias Carolene4, Nunes Dahlra5, Porto Raquel6, Cezia Marili7, Goldani Helena8, Ferreira Cristina Helena8, Scheffer Vanessa4,1Hospital da Criança Santo Antônio, Porto Alegre, Brazil; 2Hospital de Clínicas de Porto Alegre, Level A, Brazil; 3Hospital das Clínicas Porto Alegre, R. Ramiro Barcelos, Porto Alegre, Brazil; 4Hospital Nossa Senhora da Conceição, Porto Alegre, Brazil; 5Hospital de Clínicas de Porto Alegre, Level A, Brazil; 6Hospital Nossa Senhora da Conceição, Porto Alegre, Brazil.

BACKGROUND: Pediatric inflammatory bowel disease (PIBD) often presents as an extensive and aggressive disease and may be complicated by fistulas and stenosis. Therapy with immunosuppressants and biologics may prevent complications and avoid corticosteroid use. There is a lack of studies in the Brazilian pediatric population.

METHODS: A Google search using the terms “cannabis” and “Crohn’s disease” was performed to obtain the available websites. Websites were excluded if it was an inappropriate format (i.e. blog posts, general webpages, advertisements), inaccessible, or not specific for Crohn’s disease. Sites were categorized by intended audience: professional or consumer. The validated Flesch-Kincaid Grade Level Calculation determined readability. The validated DISCERN questionnaire determined quality, with scores rated as Good (56-75), Fair (36-55), or Poor (<36). The DISCERN quality score was 44.04 (57.17 for professional sites vs 42.31 for consumer sites) with no significant difference between website categories. Consumer sites compared to professional sites were less likely to report potential adverse effects of cannabis use (30.68% vs 75% (P = 0.0024) and less likely to acknowledge areas of uncertainty (47.73% vs 83.33%, P = 0.0009). 34% of the websites mentioned shared decision making with a medical provider, with no significant difference between consumer and professional websites (P = 0.6023).

CONCLUSION: This study illustrates the potential shortcomings of online resources addressing cannabis use in Crohn’s disease, specifically with regards to readability, quality, and bias. The majority of websites were directed toward consumers. However, the average readability of both consumer and professional websites was 12th grade level which exceeds the NIH recommended sixth grade level of reading level for medical information. It is important that healthcare providers have open conversations with patients regarding cannabis use in effort to provide appropriate counselling and quality resources for additional information.