occurring in 53.2% of patients with DC and 59.1% in UC. Recurrent use of corticosteroids (27.7% in CD and 27.9% in UC) followed by treatment de-escalation (29.8% in DC and 22.7% in UC) were also causes of treatment modification. Currently, 21.4% of patients with CD use immunosuppressants as monotherapy and 44.6% use biologicals as monotherapy compared to UC, where 0% and 3% use immunosuppressants or biologicals as monotherapy (P < 0.001). In UC, 30.3% use 5-aminosalicylic acid (5-ASA) as monotherapy, 15.2% require combined therapy with 5-ASA and immunosuppressants and 9.1% require combined therapy with biological, immunosuppressants and 5-ASA. Corticosteroids are still being used in combination with 5-ASA in 24.2% of this sample. Median time until biological prescription was 14 months in CD and UC respectively (P = 0.511).

CONCLUSION: In this study, most patients required treatment modification, most cases due to lack of response. This finding highlights the severity of PIBD, where immunosuppression and combined therapy are often required. Monotherapy was statically more frequent in CD than UC. This probably reflects a higher misdiagnosis in UC at immunosuppression in UC. Use of corticosteroids was also more frequently seen in UC than CD.

Admission Steroid Use, Serum Albumin and Endoscopic Severity Predict Intravenous Steroid Failure in Patients with Acute Severe Ulcerative Colitis

Subbaharan Deloahan1, Kakkadasam Ramaswamy Retrospective cohort study involving outpatients from a reference IBD unit from a Sabine Mohsen Subhaharan 60 years of age, steroid failure rate, the need for colectomy Jordan Hadi It Maneesh In patients who are

All admissions for ASUC (fulfilling Truelove and Witts Criteria) between January 1, 2015 and July 31, 2020 at GCUH and from January 1, 2018 to July 31, 2020 at LGH were retrospectively analysed. Review of electronic medical records was performed and clinical, endoscopic, laboratory data were collected. Steroid failure was defined as need for rescue therapy (medical or surgical). For comparisons of proportions, we used Pearson’s Chi square test or Fisher’s exact tests. Quantitative data were compared using t-test or Wilcoxon rank sum test. To test for independent predictive factors, a logistic regression model was constructed with the requirement for rescue therapy as the dependent variable.

RESULTS: There were 188 patients with 194 episodes of ASUC included. Seventy-seven (50.3%) female, median disease duration 1.8 years (0–6), 53 (27.3%) were index presentation of UC as ASUC. Forty-three (22.2%) episodes were on biological therapy at presentation (26 episodes on anti-TNF antagonists, 17 on Vedolizumab). Seventy-five (38.6%) episodes were on oral corticosteroids at admission. Eighty-eight (45.3%) episodes required rescue therapy [83 episodes received medical rescue (15 cyclosporine/68 Infliximab) and 5 underwent direct colectomy]. Seventy (8.7%) episodes had a colectomy during the admission for ASUC. On univariate analysis of admission variables, oral steroids (OR 4.21, P = 0.001, CI 1.68–10.52), endoscopic severity score (OR 1.1, P < 0.001, CI 1.01–1.02), albumin (OR 1.04, P = 0.005, CI 1.01–1.08) were significant for predicting steroid failure. Fecal calprotectin was not predictive of need for rescue therapy for OR (1.0, P = 0.803). On multivariate regression analysis oral steroids at admission, albumin and UCESI remained significant. We developed a novel score (ASCUS score) allocating 1 point to each variable (S. albumin < 40 g/L, Steroid use at admission, and UCESI score ≥ 7). Seventy-six patients with a score of ≥ 2 required rescue therapy (sensitivity 65.6%, specificity 98.6%, PPV 99.3%, NPV 87.4%, accuracy 93%), 43/132 patients (32.6%) of patients with a score of < 0.001, CI 3.14–9.29, AUROC 0.7756 and the need for colectomy during the same admission (OR 14.2, P < 0.001, CI 3.23–78.63, AUROC 0.8333).

CONCLUSION: 93% of patients with ASCUS score ≥ 2 at admission (serum Albumin< 30 g/L, oral Steroid use, UCESI ≥ 7 score) fail intravenous corticosteroid therapy and the risk of colectomy in this group is 3 times higher compared to the whole cohort; this group may benefit from upfront second-line therapy.

The Pathway IBD Care in Rio de Janeiro From a Tertiary Referral Center Point of View

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BACKGROUND: It’s well-established that both Crohn’s disease and ulcerative colitis are a public health challenge worldwide. The complexity of the diagnosis and the lack of familiarity of primary care practitioners with the different IBD phenotypes can cause a delay in IBD recognition, referral to an IBD specialist, and consequently, the delay of patient’s optimal IBD treatment. The aim of this study was to evaluate patient pathway care since first symptoms until attendance in a tertiary IBD outpatient unit.

METHODS: Retrospective cohort study involving outpatients from a reference IBD unit from a University Federal Hospital in Rio de Janeiro (HUCFF-UFRJ), from 2015 to 2018. The data collected through structured interviews and medical record review were: sex, age at diagnosis; family history; initial and definitive diagnosis; the interval time between symptoms onset and definitive diagnosis; disease type and phenotype; extra-intestinal manifestations (EIM), number of medical appointments until definitive diagnosis; type of health system unit where the diagnosis occurred; and first treatment. Statistics were performed using SPSSv21 software.

RESULTS: There were 188 patients included, 99 (52.6%) with CD and 89 (47.4%) with UC, the majority female (56.4%) with a predominant age group of 17–40 years in both diseases (72.7% CD, 52.8% UC). Family IBD history was more frequent in CD (21.2% vs 12.1%) (P = 0.08). Predominant initial treatment in the UC was with aminosalicylates (39.8%), whereas in CD, the use of symptomatic treatments (24.2%) prevailed. In both diseases, the presumptive IBD diagnosis was made in the private health system (40.4% CD, 46.1% UC), but the definitive diagnosis occurred mainly at the university public hospital (CD = 60.6% vs 21.2%, UC = 56.0% vs 31.5% UC, respectively), not occurring in basic care units. The earlier diagnosis (less than a year) was more significantly obtained in UC (50.6%) in comparison to CD patients (28.3%) (P = 0.001). The first symptoms in CD were in decrescent order: abdominal pain (78.8%), diarrhea (70.7%), and weight loss (63.6%); and in UC: rectal bleeding (80.9%), diarrhea (76.4%), and abdominal pain (33.9%). EIM was present in 43.7% UC and 34.4% CD, with a higher frequency of rheumatological manifestations in both diseases (DC 23.2%; UC 21.3%).

CONCLUSION: Despite the predominance of classic initial symptoms, the diagnosis of IBD was complex and mostly made in reference centers with a significant delay, mainly in CD patients. The introduction of therapeutic treatment during the therapeutic window of opportunity in early disease is a progressive course of disease, delaying or preventing complications and patient’s quality of life. However, the local expertise, availability of minimal testing resources and an IBD care pathway with standard referral patterns are necessary to provide an earlier diagnosis and treatment.

Analysis of Dysbiosis in Crohn’s Disease by Next-Generation Sequencing: One Size Does Not Fit All

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The American Journal of GASTROENTEROLOGY

VOLUME 115 | SUPPLEMENT 1 | DECEMBER 2020 | www.amj gastro.com

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BACKGROUND: Crohn’s Disease (CD) is a debilitating chronic inflammatory process of the gastrointestinal tract which primarily affects children, teens, and young adults, causing severe pain, diarrhea, and other intestinal issues. Crohn’s affects nearly 1.4 million individuals in the United States, and is characterized by deep ulcerations, skin lesions, transmural inflammation, fistula and granuloma formation, and expression of cytokines that changes in the gut. In the past, the gut may play a role in CD. Dysbiosis of the enteric microbiota has been demonstrated in CD patients, and it is speculated that this dysbiosis may contribute to the intestinal inflammation observed in those patients. This study sought to identify characteristics of dysbiosis in patients with CD in order to ascertain whether microbiome manipulation is a potential treatment avenue to pursue.

METHODS: Microbiome sequencing results from a subset of 8 CD subjects from a larger microbiome study were analyzed in comparison to a first-degree relative (parent, child, or sibling). To obtain a microbiome profile, DNA was extracted from the fecal samples. DNA was then quantified and normalized for downstream library fabrication utilizing shotgun methodologies. Prepared and indexed libraries were subsequently pooled and sequenced on the Illumina NextSeq 500 System. Sample FASTQ files were analyzed with a computational tool profiling the microbial communities from metagenomic sequencing data with species level resolution. Finally, individual microbiome profiles were analyzed for Alpha Diversity and relative abundance.

RESULTS: While dysbiosis was found in every subject studied, they each had a unique presentation. Analysis revealed that Subject 1 had a Shannon Diversity Index of 2.2, compared with the subject’s mother at 3.6. Gastroenterics was overrepresented in this subject, representing 74% of the total reads. In comparison, Bacteroides represented only 22% of the mother’s total reads. Bifidobacteria, thought to be a beneficial constituent of the microbiome, was markedly decreased (0.009% vs 1.5% total reads). Conversely, Akkermansia, associated with inflammation, was not surprisingly elevated (6.7% vs 0.026% of total reads). Contrast this to Subject 4, with a Shannon Diversity Index of 0.6, compared with Subject 2, which was her mother. The Shannon Diversity Index in Subject 4 was 0.9, a distinct overgrowth of Entereccoccus faecium, which represented 89.95% of the relative abundance. While greater similarity was seen between first-degree relatives than the group of CD subjects, the Shannon Diversity Index was a mean of 2.6 in the CD group and 3.65 in the healthy family members.

CONCLUSION: Many studies have found potential infectious etiologies for Crohn’s disease. In this study, we attempted to distinguish between the microbiome of CD patients and healthy family members. While there were differences, these results vary widely from study to study, and this lack of reproducibility calls the findings into question. While most authors agree that reduced species diversity and richness can be found in Crohn’s patients, the exact nature of this dysbiosis changes from person to person. As there is no one-size-fits-all disease for Crohn’s disease, the treatment must truly fit the individual. There is no silver bullet. Rather, the treatment of Crohn’s disease must be guided by next-generation sequencing of the microbiome, to ascertain the nature of the dysbiosis therein.