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Scientific Abstracts

Histological Scoring System for Ileitis

Histological Feature	Grading
Crypt distortion	None / Moderate / Severe
Villus blunting	None / Mild / Moderate / Severe
Acute inflammation in LP	None / Focal / Diffuse
Acute inflammation in epithelium	None / Surface / Cryptitis / Crypt abscess
LP expansion by mononuclear cells	Normal / Moderate / Marked
Erosions/ Ulcers	Absent / Present
Pyloric metaplasia	Absent / Present
Granulomas	Absent / Present

30 ***ASSOCIATIONS BETWEEN DISEASE ACTIVITY, PARENT DEPRESSIVE SYMPTOMS, AND HEALTH-RELATED QUALITY OF LIFE AMONG YOUTH WITH INFLAMMATORY BOWEL DISEASE.*** *Bonney Reed-Knight[1,2], Ronald L. Blount[5], Jeffery D. Lewis[3,4], [1]Transplant Services, Children's Healthcare of Atlanta, Atlanta, GA; [2]Emory University School of Medicine, Atlanta, GA; [3]Children's Center for Digestive Health Care, Atlanta, GA; [4]Children's Healthcare of Atlanta, Atlanta, GA; [5]Psychology, University of Georgia, Athens, GA*

PURPOSE: Health-related quality of life (HRQOL) is a multidimensional construct, influenced by disease, individual, and environmental factors. Greater disease activity has understandably been demonstrated to predict poorer HRQOL, though disease status alone does not fully account for HRQOL.

METHODS: Participants include 89 adolescents ages 11-18 (M = 14.68, SD = 2.30) diagnosed with IBD and their caregiver. Fifty-six percent of the sample is male, and 74% are diagnosed with Crohn's disease. Adolescents completed the IMPACT-III (Otley et al., 2002), a disease-specific measure of HRQOL for youth with IBD. Parents rated their own depressive symptoms using the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1994). Physicians rated disease activity using the Pediatric Crohn's Disease Activity Index (PCDAI; Hyams et al., 1991) and the Pediatric Ulcerative Colitis Activity Index (PUCAI; Turner et al., 2007).

RESULTS: Disease activity was negatively associated with patients' HRQOL (r = -.38, p < .01). Similarly, parents' self-reported symptoms of depression were negatively associated with IBD patients' HRQOL (r = -.45, p < .01). A multiple regression model was tested to examine whether the association between disease activity and HRQOL depends on the level of parents' depressive symptoms. The interaction between disease activity and parents' depressive symptoms was significant, (b = .03, SE_b = .02, p = .05), suggesting that the relationship between disease activity and HRQOL depended on the severity of parents' depressive symptoms. Simple slope tests revealed a significant negative association between disease activity and HRQOL at low levels of parents' depressive symptoms (b = -.82, SEb = .22, p < .01) and moderate levels of parents' depressive symptoms (b = -.53, SEb = .17, p < .01), though the relationship was no longer significant at high levels of parents' depressive symptoms (b = -.25, SEb = .17, p > .05). In other words, at high levels of parents' depressive symptoms, patients' HRQOL was consistently poorer and not dependent upon disease activity.

CONCLUSIONS: Youth with greater disease activity whose parents report lower or moderate levels of depressive symptoms are more likely to report poorer HRQOL. Youth whose parents self-report higher levels of depressive symptoms consistently report poorer HRQOL regardless of disease activity. HRQOL is a multidimensional outcome measure, likely influenced by multiple systems including parent psychological functioning. Interventions to improve HRQOL in youth with IBD should target disease activity as well as patient and family psychological functioning.

31 ***LACTOSE-FREE MILK FORMULA USEFULNESS SUPPLEMENTED ADDED WITH PECTIN IN OLDER INFANTS WITH NOT COMPLICATED ACUTE GASTROENTERITIS (LFP).*** *Carlos I. Oyervides, Isabel Torres, Alma R. Paredes, Gastroenterologia, Hospital del Niño "Federico Gómez", Saltillo, Mexico*

Background: Diarrheal diseases are one of the most important causes of morbidity and mortality in children under 5 years of age. In the second year of life, milk continues to be essential part of a child’s diet. Providing a milk formula designed to improve its intestinal tolerability and to maintain an adequate nutritional intake, have an effect on enteral symptom duration.

Objective: To evaluate LFP effectiveness in children 1-2 years of age with not complicated acute gastroenteritis.

Materials and methods: All patients at admission underwent a complete medical history and examination, stool test and Rotatest. Patients were randomized into two groups: The first group (control) received an anti-diarrhea diet and 45 mEq/Lt rehydration solution (RS). Group 2 received the same treatment plus LFP. Evaluations at start, third and fifth day were performed. Body weight, number and consistency of bowel movements, number of peristaltic movements, duration of diarrheic symptoms, duration of oral rehydration therapy, and anti-diarrhea diet were assessed at beginning

and end of the study. SPSS Statistics (v 17.0) was used for statistical analysis. X^2 or Fisher's exact test and Student's test were used. Significance value was 0.05.
Results: At the beginning, 32 patients without dehydration were included, with a mean age of 17.2 months, of which 2 were excluded. In the 30 patients who completed the study, there were no differences in demographic characteristics. 1 due to dysentery and 1 due to treatment failure the day of admission. Only one patient had documented rotavirus infection and was added to test group. The duration of diarrheic symptoms was 3.41 days in group 1, and 2.43 in group 2 (p =0.038, CI .316-1.952). Bowel movements on third day in group 1 were 2.64, and 1.81 in group 2 (*p* =0.02, CI 0-.027-1.081), on fifth day there was no difference (*p* =0.89). Children in group 2 at the beginning of the study had more watery bowel movements than group 1 (*p* =0.001). On third day, there was no difference, and at the end of the study showed more formed stools (*p* =0.001). RS was administrated for 3.41 days in group 1, and 2.43 in group 2 (p =0.025, CI 0.177-1.733). The days of using diet had no difference between the two groups. Number of peristaltic movements improved faster in children receiving LFP (p=0.005) and were similar at the end of the study. Body weight of group 1 had an average of -230 g at the end of the study with regard to that at admission, and group 2 had an average of +230g with respect to that at admission (p=0.43).
Discussion: Use of LFP shortened disease duration in one day. Bowel movement pattern significantly improved on third day when using LFP.This effect was also reflected in normalization of peristaltic movements. Need of oral rehydration therapy was shorter with LFP, but with no effect on diet need. LFP use prevented not only loss of weight, but contributed to its increase. Evidence obtained in the study is limited by test group size.Therefore, it is concluded that the use of LFP demonstrated to be more effective than traditional management. Of note, shortening of symptom duration is similar to that observed with other drugs. Studies with a larger number of children comparing different therapeutic options are recommended

32 ***MALNUTRITION AND ELECTROLYTE ABNORMALITIES IN PATIENTS WITH CEREBRAL PALSY AND GASTROINTESTINAL DISORDERS.*** *Catalina Jaramillo, Abi Johnson, Tetyana Vasylyeva, Ruchi Singh, Pediatrics, Texas Tech University Health Science Center, Amarillo, TX*
Introduction: Undernutrition and growth failure are common findings in studies on neurologically impaired children and seem to be related to inappropriate caloric intake, altered nutrient needs, inability to self-feed and oral motor dysfunction. Up to one-third of pediatric patients have associated growth disorder and nutritional deficits. Malnutrition affects the quality of life and is associated with increased health care use. Although in the past undernutrition was considered as a natural spectrum of disease of neurologically impaired children, it is now recognized that adequate nutrition in these patients is essential. The **objective** of this retrospective study is to determine the prevalence of malnutrition and electrolyte abnormalities in children with cerebral palsy and gastroesophageal reflux.
Materials and Methods: A retrospective review of the 268 medical records of pediatric patients under 18 years of age with diagnosis of cerebral palsy was done. A total of 96 patients were excluded due to lack of CP diagnosis or inaccurate/insufficient data. Out of the remaining 172 patients: 45 subjects did not have GI problems, 69 patients had constipation and 58 patients had either GERD, esophagitis, gastrostomy and feeding difficulties. Data collected included: weight, length and BMI percentiles (%), pre-albumin, albumin, Sodium (Na), Potassium (K), Chloride (Cl), Bicarbonate (HCO_3), Calcium (Ca), Magnesium (Mg), Phosphorus and Vitamin D. The data for patients with and without GI disease were compared. Subgroup analysis by GI diagnosis was also done: Constipation *vs*. GERD, Esophagitis, Gastrostomy and Feeding difficulties *vs*. no GI diagnosis. Normality was checked and the variables that meet normality were analyzed by parametric t-Test; the rest of variables were analyzed by non-parametric tests (Mann-Whitney).
Results: The initial results suggest a significant difference ($p = 0.0126$) in the values of albumin in children with CP without *vs.* with gastrointestinal disorders. A subgroup analysis, a significant difference ($p = 0.0129$) was found in magnesium levels between CP children with constipation *vs.* GERD/esophagitis/ feeding issues/ gastrostomy.
Conclusions: Our results suggest that children with CP and GI disorders have decreased levels of albumin possibly secondary to GI losses and/or insufficient intake. Protein losing enteropathy might also explain GI losses. Lower levels of Mg levels in children with CP and constipation might be secondary to the use of laxatives. Further prospective studies might help determine the etiology behind our findings. This could enhance the pharmacoogical and nutritional care of this patient population.