2020 Advances in Inflammatory Bowel Diseases: Vision for the Next Decade

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PO01
North-South Gradient in the Incidence of Pediatric Inflammatory Bowel Disease Along the Atlantic Coast

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BACKGROUND: Inflammatory bowel disease (IBD) represents a group of intestinal disorders, including Crohn’s disease (CD) and ulcerative colitis (UC), that involve chronic inflammation of the digestive tract. Pediatric IBD is defined when onset of symptoms and diagnosis occurs in patients 18 years or less. East-West and North-South gradients have been reported in Canada and Europe. We aimed to evaluate whether a similar gradient exists in the US among the pediatric population.

METHODS: We conducted a retrospective cohort study from January 1, 2000 to December 31, 2018 using electronic health records from one national children’s hospital that participates in the PEDIatric IBD network. We extracted information on patient demographics, encounters with healthcare providers, diagnoses recorded, and procedures performed during these encounters from patient’s electronic health records. The outcomes of interest include geographic location (North vs South), gender, race/ethnicity, age at diagnosis, tobacco use, socioeconomic status, and need for surgery.

RESULTS: A total of 2,409 patients 18 years of age or less met the eligibility criteria of the study; 1818 (75.5%) non-Hispanic White, 320 (13.3%) non-Hispanic Black, 198 (8.2%), Hispanic, 60 (2.5%) Asian, and 13 (0.5%) “other.” There was no difference in the male predominance in all groups between the North and the South (55.3% vs 54.3%, P = 0.62). The incidence of IBD among the non-Hispanic Whites was greater in North (78.5% vs 72.2%, P = 0.0002). The incidence of IBD among the Hispanics was greater in the South (5.3% vs 11.4%, P < 0.0001). There was no difference in incidence of CD between the North and South (68.8% vs 69%, P = 0.92); however, UC was more prevalent in the South (23.2% vs 27.3%, P = 0.02). Further breakdown of CD and UC with respect to ethnicity revealed the incidence of CD and UC in the Hispanic population is greater in the South (5% vs 10.3%, P < 0.0001; 6.2% vs 14%, P = 0.001, respectively). There was no difference seen in non-Hispanic Whites, non-Hispanic Blacks, Asians, and “others” with respect to CD, UC or IBD.

CONCLUSION: We demonstrate a North-South gradient in the pediatric in the non-Hispanic and Hispanic population with IBD. There is a higher incidence of UC in the pediatric population in the South. Furthermore, there is a higher incidence of CD and UC in the Hispanic population in the South compared to the North. Further epidemiologic studies are needed to assess the racial/ethnic differences that contribute to this North-South gradient.

PO02
Frequency and Causes of Prolongation of the Induction Course of Tofacitinib in Patients with Ulcerative Colitis

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BACKGROUND: First-line treatment of ulcerative colitis (UC) includes anti-tumor necrosis factor (TNF)-a drugs, the need for a prolonged induction course of tofacitinib was not required in any patient (9%). In the 2-cnd group of patients (n = 25), previously treated with anti-TNF-a drugs, a prolonged induction course of tofacitinib was required in 9 (36%) patients (x2=4.484, P = 0.028).

CONCLUSION: The need for prolongation up to 16 weeks of the induction course of tofacitinib in patients with ulcerative colitis B is significantly higher in patients who have previously received one or more anti-TNF-a drugs.

PO03
Frequency of Hereditary and Acquired Thromboembolic Complications in Patients With Inflammatory Bowel Diseases in Moscow

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BACKGROUND: Thromboembolic complications (TC), which are one of the characteristic manifestations of inflammatory bowel diseases (IBD).

OBJECTIVE: To identify the frequency of hereditary and inherited hypercoagulation factors that contribute to the development of TC in patients with IBD.

METHODS: The clinical status of 1238 IBD patients undergoing treatment in 2019 was evaluated in the Department of IBD. 748 patients with ulcerative colitis (UC) and 490 patients with Crohn’s disease (CD) at the IBD center.

RESULTS: In 122 patients with UC and 36 (32.2%) patients had Crohn’s disease. Of 112 IBD patients with clinically significant TC, 45 (40.2%) had genetic mutations that increase affinity for fibrinogen, increase platelet aggregation, disrupt follic acid metabolism, and reduce the activity of the methylenetetrahydrofolate reductase enzyme, which may be manifested by a moderate increase in homocysteine levels. 67 patients with IBD (59.8%) did not have genetic mutations that lead to hypercoagulation. Of the 45 IBD patients with clinically significant hypercoagulable states due to hemostatic factors, 30 (66.6%) had UC, 15 (33.7%) had CD (HR 1.038; 95% CI 0.746-1.444, x2=0.049, P = 0.8392).

CONCLUSION: Clinically significant hypercoagulable states were found in 9% of IBD patients. More than 40% of patients with clinically significant hypercoagulable states (n = 112) have inherited factors that contribute to the development of hypercoagulable states. About 60% of IBD patients with clinically significant hypercoagulable states do not have hypercoagulable factors that lead to the development of hypercoagulable states.