KEYNOTE FORUM | DAY 1

PEDIATRICS & THERAPEUTICS 2019, VOLUME 9 | DOI: 10.4172/2161-0665-C1-083

Routine iron supplementation with intravenous iron sucrose in children with inflammatory bowel disease

Statement of the Problem: Iron deficiency anemia (IDA) is a common and persistent problem in children with inflammatory bowel disease (IBD), affecting cognitive development and school performance. Despite poor adherence and malabsorption related to inflammation, oral iron remains the mainstay of management, and intravenous iron is not used for routine supplementation in pediatric IBD. Although health-related quality of life (HRQL) is a key outcome measure, the effect of correction of IDA on HRQL in children with IBD is poorly understood.

Methodology & Theoretical Orientation: HRQL was analyzed with Peds QL 4.0 (Pediatric Quality of Life Inventory) Generic Core Scales in a cohort of children with IBD as a function of anemia and disease activity, and compared with published data in pediatric IBD and healthy controls. A protocol was developed to correct IDA with periodic intravenous iron sucrose (IVIS). Using this protocol, a prospective study was conducted to assess the association between correction of anemia and changes in HRQL over a period of over 3 years. A linear mixed effects model with patient-specific random effects and an autoregressive correlation structure was used to evaluate changes in laboratory parameters measured on a continuous scale and HRQL scores over time.

Findings: Anemia was associated with significantly lower HRQL scores. Hemoglobin and iron indices normalized within six months of starting the IVIS protocol and remained normal throughout the study. Side effects were mild and rare. Correction of IDA was accompanied by significant improvement in HRQL scores over time. While there was a trend of decreasing disease activity over time, it was preceded by improvements in HRQL.

Conclusion & Significance: Anemia impairs HRQL in children with IBD. Periodic IVIS safely and efficiently corrects IDA. Correction of anemia is associated with improvements in HRQL. Aggressive diagnosis and management of IDA are warranted in pediatric IBD.

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Biography

Istvan Danko has a research background that includes transplant immunology and gene therapy for muscular dystrophy and inherited disorders of bilirubin glucuronidation. After completing his residency in pediatrics and his fellowship in pediatric gastroenterology he joined the faculty of the Department of Pediatrics at the University of Wisconsin-Madison in 2001. Currently, he is Associate Professor and attending pediatric gastroenterologist at the American Family Children's Hospital of the University of Wisconsin-Madison, School of Medicine and Public Health. His current research focus is iron deficiency anemia in children with inflammatory bowel disease.

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