

23rd Annual Congress on

PEDIATRICS & NEONATOLOGY

November 05-06, 2018 Bangkok, Thailand

Hepcidin in a newly diagnosed inflammatory bowel disease in children**Eva Karaskova, Jana Volejnikova, Maria Velganova-Veghova, Lucie Sulovska, Dagmar Pospisilova, Vladimír Mihal, Dusan Holub and Monika Horvathova**

Palacky University, Czech Republic

Background & Aim: Hepcidin is a central regulator of iron homeostasis. Its production is also influenced by systemic inflammation. This study aims to compare hepcidin levels in pediatric patients newly diagnosed with Crohn's Disease (CD) and Ulcerative Colitis (UC) and to determine the association of hepcidin levels with laboratory and clinical parameters of Inflammatory Bowel Disease (IBD) activity.

Method: 76 children with IBD (53 with CD and 23 with UC) children with IBD newly diagnosed between January 2012 and September 2016 were enrolled in this comparative cross-sectional study. We analyzed levels of serum hepcidin, C-reactive protein, iron, ferritin, soluble transferrin receptors, blood count and fecal calprotectin in all subjects. Serum hepcidin levels were measured by reverse-phase liquid chromatography. Pediatric Crohn's Disease Activity Index (PCDAI) was evaluated in children with CD and Pediatric Ulcerative Colitis Activity Index (PUCAI) was used for assessment of UC disease activity.

Result: Subjects with CD (n=53) had significantly higher serum hepcidin levels compared to subjects with UC (n=23)-22.6 (range 8.5-65.0 ng/ml) vs. 6.5 (range 2.4-25.8 ng/ml) ($p<0.05$). Hepcidin was independently associated with ferritin levels in all IBD patients ($p<0.05$). Moreover, there was a significant positive correlation between hepcidin and platelet count ($p<0.05$) in children with CD and a negative correlation between hepcidin and fecal calprotectin ($p<0.05$) in children with UC.

Conclusion: Different hepcidin levels between children with newly diagnosed CD and UC suggest distinct contribution of iron deficiency and/or systemic inflammation to anemia and may help clinicians choose the best anti-anemic treatment.

Biography

Eva Karaskova is a faculty at Department of Pediatrics Medicine and Dentistry, Palacky University and University Hospital, Olomouc in the Czech Republic. She acquired Specialty Board Certification for General Pediatrics, Specialty Board Certification for Pediatrics Gastroenterology, Hepatology and Nutrition and Specialty Board Certification for Clinical Nutritional and Intensive Metabolic Care. He is the Head of Pediatric Gastroenterology Centre, University Hospital Olomouc. She is author or co-author of seven papers published in journals.

e.karasko@seznam.cz

Notes: