Abstracts of the 3rd International Symposium on Pediatric Inflammatory Bowel Disease

P-048 Cut-off value of fecal calprotectin in pediatric patients with inflammatory bowel disease

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Introduction: Fecal calprotectin is a neutrophil-derived S-100 protein correlating with intestinal inflammation.

Aims: The primary aim of our prospective study was to compare fecal calprotectin levels in pediatric patients with inflammatory bowel disease (IBD: Crohn’s disease, CD and ulcerative colitis, UC) with healthy controls to determine the best cut-off value to distinguish IBD patients from controls. Our secondary aim was to correlate fecal calprotectin to disease activity scores (PCDAI, PUCAI) and laboratory markers.

Methods: Fecal calprotectin was measured by quantitative lateral flow assay in 81 pediatric patients with IBD (CD: 65; UC: 14, median age: 15.8 years) and in 67 healthy controls (median age 11.3 years). In addition, disease activity scores (PCDAI, PUCAI) and laboratory markers were also determined.

Results: Fecal calprotectin was significantly increased in patients with IBD (median: 784 μg/g, 25–75 pc: 292.5–1754 μg/g), in CD (800 μg/g, 365.5–1620 μg/g), in UC (207.5 μg/g, 100–207.5 μg/g) when compared with controls (100 μg/g, 100–100 μg/g). The best cut-off was 192.5 μg/g of fecal calprotectin and platelet count correlated positively in patients with UC. There was no correlation between fecal calprotectin and disease activity indexes (PCDAI, PUCAI) or laboratory markers studied (CRP, PCDAI, PUCAI).

Conclusions: Fecal calprotectin is a reliable, non-invasive marker in patients with IBD with the cut-off level of 200 μg/g. Disease activity indexes were not correlated with fecal calprotectin. Positive correlation of platelet count and calprotectin may have diagnostic relevance in patients with UC.

P-049 Reproducibility of serologic antibody activity at diagnosis and after treatment in pediatric ulcerative colitis and Crohn’s disease

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Introduction: Serological nuclear and antimicrobial antibodies are predictive markers of disease course and complications in ulcerative colitis (UC) and Crohn’s disease (CD). The stability of serological titers over time has been questioned.

Aim: We wanted to compare antibody titers before and after treatment in newly diagnosed treatment naïve pediatric patients with inflammatory bowel disease (IBD).

Methods: Patients <18 years, altogether 57 patients, 38 with CD and 19 with UC were diagnosed with IBD between 2005 and 2007. Blood specimens were analyzed for antibodies (Prometheus labs, San Diego) at diagnosis and again after 1–2 years of treatment.

Results: Thirteen (68%) of the UC patients and 13 (34%) of the CD patients were ANCA-positive (p = 0.01). In CD and UC patients respectively, the median titers in EU/ml against Lp, Anti-Omp C, ASCA IgA, ASCA IgG and CBlr, were not statistically significantly different after treatment compared to baseline.

Conclusion: The titer against ASCA IgA and IgG were significantly higher at diagnosis in CD patients (8.4 and 11.9) compared to UC patients (3.1 and 3.1), p = 0.01 and <0.01. The same differences between patients with CD (7.5 and 12.8) and UC (3.1 and 6) were found after treatment, p = <0.01 and 0.03, regardless whether the patients had received infliximab treatment (18/38 CD patients) or not.

P-050 Idiopathic thrombocytopenic purpura associated to pediatric Crohn’s disease; diagnostic and therapeutic implications

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Introduction: Inflammatory bowel disease (IBD) is often associated to extra-intestinal manifestations. Among these, hematologic autoimmune thrombocytopenia or idiopathic thrombocytopenic purpura (ITP) has been rarely reported.

Study Cases: Case 1: A 9-year-old girl with Crohn’s disease (CD) on maintenance treatment and azathioprine (AZA), presented with ecchymosis, petechiae, and isolated thrombocytopenia (2000/mm³). ITP was diagnosed and treatment with intravenous gammaglobulin (0.8 mg/kg/dose) and steroids (2 mg/kg/day) is started, with good response and posteroiori management with periodic gammaglobulin. Six months later, after stopping AZA, she experienced a relapse of her CD, associated to peripheral arthritis. Treatment with Adalimumab (ADA) was started, with good control of her digestive and joint symptoms and with no further need of treatment for her ITP.

Case 2: A 15-year-old male with spastic diplegia secondary to perinatal anoxia, and ileocolonic CD, received exclusive enteral nutrition and AZA after diagnosis, achieving remission. Due to digestive intolerance, AZA was switched to mercaptopurine, with good response. Seven months after diagnosis, isolated thrombocytopenia (85000/mm³) was detected, leading to the diagnosis of ITP. He received gammaglobulin with good response, but subsequently needed maintenance treatment with steroids (0.5 mg/kg/day). Due to severe acne and low bone mineral density, treatment with ADA is being currently evaluated.

Conclusions: The association of IBD and ITP has been poorly communicated. Differential diagnosis with drug toxicity and other concurrent processes should be done. The good response of both entities to anti-TNF treatment suggests shared pathogenetic mechanisms. This treatment may be an alternative conventional therapies.