P341
Faecal biomarkers compared with MRI using the MaRIA and Clermont scores for monitoring inflammatory activity in patients with Crohn’s disease

J. Langhorst1*, A. Koch1, J. Boone1, A. Rueffer1, G. Dobos4, L. Umutlu1, Y. Li1
1University of Duisburg-Essen, Integrative Gastroenterology, Kliniken Essen-Mitte, Essen, Germany, 2Tech Lab Inc., Blacksburg, USA, 3Labor L&S, Enterosan, Bad Bolsleben, Germany, 4University of Duisburg-Essen, Integrative and Internal Medicine, Essen, Germany, 5University Hospital Essen, Institute of Diagnostic and Interventional Radiology and Neuroradiology, Essen, Germany

Background: Fecal biomarkers like calprotectin (CAL) and lactoferrin (LF) have been evaluated regarding their capacity to differentiate and monitor disease activity in inflammatory bowel disease (IBD). These non-invasive biomarkers are increasingly popular and used in all-day patient care. Magnetic resonance imaging (MRI) is the gold standard approach to diagnose and monitor small bowel Crohn’s disease (CD). Magnetic Resonance Index of Activity (MaRIA) and the Clermont score are validated MRI activity indices in grading activity and severity of inflammation in patients with CD. The aim was to evaluate the performance of fecal biomarkers compared with the MaRIA and Clermont score in patients with CD.

Methods: Fecal samples were collected to determine LF, CAL, PMN-elastasis (PMN-e), S100 calcium-binding protein A12 (S100A12), and eosinophil-derived neurotoxin (EDN) by enzyme immunoassay (EIA) and results are reported as µg/g. In every patient, an MRI was performed and MaRIA and the Clermont score were calculated and standard cut-offs were applied by two independent experienced radiologists. Receiver operating characteristic (ROC) curves for each fecal biomarker using MaRIA and Clermont score as reference standard were calculated to determine sensitivity, specificity, and accuracy using optimised cut-offs.

Results: A total of 50 patients with CD were included in the study. Sociodemographic and clinical characteristics are shown in Table 1. According the MaRIA score n = 41 patients and according to the Clermont score n = 42 patients showed signs of active inflammation. Mean levels for patients with active/inactive inflammation were 12.43 (µg/g)/1.90 (µg/g) in LF, 224.86/ (µg/g) 151.17 (µg/g) in CAL, 0.17 (µg/g)/0.09 (µg/g) in PMN-e, 64.91 (µg/g)/79.09 (µg/g) in S100A12 and 1.4 (µg/g)/0.47 (µg/g) in EDN. Using optimised cut-offs, EDN, LF, and CAL were able to distinguish between active and inactive CD (see Table 2).

Conclusions: Fecal Lactoferrin, Calprotectin, and EDN were significantly correlated to the Clermont score; however, only Lactoferrin was correlated to the MaRIA score. These results support the utility of fecal biomarkers for detecting active inflammation in patients with Crohn’s disease.

P342
Development of self-screening tool for perianal disease in patients with Crohn’s disease: A pilot study

E.S. Kim1, B.I. Jang2*, H.S. Lee1, Y.J. Lee1, E.Y. Kim4, K.H. Song1, S.K. Kim1, Crohn’s and Colitis Association in Daegu-Gyeongbuk (CCAiD) 1Kyungpook National University School of Medicine, Internal Medicine, Daegu, South Korea, 2Yeungnam University College of Medicine, Department of Internal Medicine, Daegu, South Korea, 3Keimyung University School Of Medicine, Department of Internal Medicine, Daegu, South Korea, 4Catholic University of Daegu, Department of Internal Medicine, Daegu, South Korea, 5Goo Hospital, Department of Surgery, Daegu, South Korea

Background: Perianal disease, including perianal fistula and perianal abscess, is known as one of the poor prognostic factors of Crohn’s disease (CD). However, there has been no tool for CD patients to