endoscopic disease recurrence, according to the Rutgeerts score (graded as ≥2). CR and FC are difficult to respect and perform adequately and both surrogates mark responders with respect to the presence and severity of postoperative endoscopic disease recurrence were assessed by computing correlations, sensitivity, specificity and predictive values at adjusted cutoffs and also tests operating characteristics.

RESULTS: A moderate (I) and a severe (≥3) endoscopic recurrence was observed in 18 and 36 patients, respectively. FCa concentrations differed significantly in patients experiencing evidence for endoscopic recurrence when compared with those without recurrence (mean ± SEM 484 ± 71 µg/g vs 118 ± 17 µg/g; p<0.0001). The area under the ROC curve (AUROC) to discriminate between patients in endoscopic recurrence and recurrence was 0.85 for FCa and lower 0.70 for CRP. The best cutoff point for FCa to distinguish between endoscopic recurrence and endoscopic surgery was 100 µg/g, as determined by the ROC curve and its sensitivity, specificity, positive and negative predictive values as well as overall accuracy were 93%, 57%, 66%, 89% and 74%, respectively. In our cohort, FCa concentrations lower than 100 µg/g would allow with a high accuracy to avoid colonoscopy in almost 31% of patients.

CONCLUSION: Measurement of FCa concentrations may be a promising and useful tool for monitoring CD patients after ileocolonic resection. Patients with a concentration of FCa below 100 µg/g are highly likely to be exempt of endoscopic recurrence and therefore FCa measurement in CD patients who had undergone surgery would get some help in making decision for colonoscopy.

Disclosure of Interest: None declared

OP135 PROGNOSTIC VALUE OF COMPLETE REMISSION IN PATIENTS WITH MUCOSAL HEALING IN ULCERATIVE COLITIS

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INTRODUCTION: Healing in ulcerative colitis (UC) predicts better outcome with fewer relapses and colectomy. However, there is scarce data on the additive prognostic value of histological and biological activity among patients with both clinical and endoscopic remission (complete remission). AIMS & METHODS: To assess the prognostic value of histological and biological activity in UC patients with clinical and endoscopic remission.

METHODS: Prospective observational study including 77 UC patients in clinical remission and endoscopic healing (EH) in a single center. Patients with a complete colonoscopy were included in the analysis. Histological and biological activity were assessed according to the Mayo score and C-reactive protein haemoglobin and albumin levels, and by leukocyte and platelet counts. In the event of recurrence, endoscopic and histological activities were measured. Patients were followed up after the endoscopy for 12 months. Clinical relapse (CR) was defined as a clinical Mayo score ≥3.1 (43% vs. 20%; P=0.034). After adjusting for endoscopic activity, a GS ≥3.1 remained as an independent risk factor for CR (OR 3.1; 95% CI 1.3; 0.09; P=0.043). Patients with basal plasmacytosis presented numerically more CR, but differences were not statistically significant (19 vs. 11%; P=0.45). None of the biological variables included were predictive for CR (Table 1).

CONCLUSION: In a prospective cohort, histological activity defined as GS ≥3.1 predicts CR at 1 year among patients with both clinical and endoscopic remission.

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A. Annahazi1, R. Roka1, T. Wittmann1, T. Molnar1, L. Tiszlavicz3, M. Szus1

CD62L (L-Selectin) shedding is the first validated test of function useful tool to guide medical decision on the use of anti-TNF agents. Prospective study in patients with Crohn’s disease (CD) and ulcerative colitis (UC) measured L-Selectin shedding in peripheral blood mononuclear cells (PBMC) by flow cytometry. Median fluorescence intensity of CD62L on the surface of granulocytes was quantified by surface staining with fluorochrome-conjugated antibodies against CD3 and CD62L. Logistic curves of these data predicted the evolution of EC50 or the consumption of TNF required to induce a 50% shedding of surface CD62L [Patuto et al, DDW 2011]. The change in EC50 following the anti-TNF agent infusion, was used to predict the in vivo response to the anti-TNF agent. This predicted response was correlated to the clinical evolution of the patients in order to analyze the ability of this test to identify LOR.

RESULTS: We collected prospective clinical data and 2 blood samples, before and after anti-TNF agent administration, on 33 IBD patients, 25 Crohn’s disease and 8 ulcerative colitis patients (45% females) between June 2012 and November 2013. The assay showed a functional blockade (PFR) for 22 patients (17 CD and 5 UC) whereas 11 (8 CD and 3 UC) had no functional response (NR). Selected clinical characteristics between predicted PFR and NR are compared below (Table 1). Among the 22 Patients with predicted PFR, 1 patient was a clinical non-responders (LOR to IFX), based on clinical prospective evaluation by IBD gastroenterologists (PJ, FS, and AJM), and among the 11 predicted NR, 3 had no clinical LOR. Sensitivity of this test was 95% and specificity 73% and AUC adjusted for age and gender was 0.83. During follow up (median 10 months, range 3-15) 8 “hard” outcomes occurred (3 medic. flares, 4 resections and 1 new fistula) 2 in the PFR and 6 in the NR group (25% vs. 75%; p<0.01).

<table>
<thead>
<tr>
<th>Predicted</th>
<th>Predicted</th>
</tr>
</thead>
<tbody>
<tr>
<td>responders (N=22)</td>
<td>non responders (N=11)</td>
</tr>
<tr>
<td>Age (years +/-SD)</td>
<td>34.8 (±11)</td>
</tr>
<tr>
<td>Clinical LOR: No/partial/complete</td>
<td>68%/27%/1%</td>
</tr>
<tr>
<td>Perianal</td>
<td>41%</td>
</tr>
<tr>
<td>Dis. start IFX (years +/-SD)</td>
<td>6.9 (±6)</td>
</tr>
<tr>
<td>interval reduction needed</td>
<td>23%</td>
</tr>
<tr>
<td>Smokers</td>
<td>33%</td>
</tr>
</tbody>
</table>

Conclusion: CD62L (L-Selectin) shedding is the first validated test of functional blockade of TNF alpha in anti-TNF treated IBD patients and will be a useful tool to guide medical decision on the use of anti-TNF agents. Prospective comparative studies with antibodies against the drug and trough levels are ongoing.

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INTRODUCTION: Inflammatory biomarkers that correlate with enteral inflammation would be beneficial for monitoring the course of disease and targeting treatment in patients with inflammatory bowel disease (IBD). Only limited data are available about the diagnostic accuracy of fecal matrix metalloproteinase (MMP)9 in IBD.

AIMS & METHODS: The aims of our prospective study was to assess the diagnostic accuracy of fecal MMP9 in patients with active Crohn’s disease (CD), ulcerative colitis (UC) and pouchitis as assessed by clinical, endoscopic and histological parameters. We compare the diagnostic accuracy of fecal MMP9 and fecal calprotectin (CP) in IBD. Stool and blood samples were collected in 50 CD, 54 UC and 34 ileal pouch-anal anastomosis patients before control endoscopy. Biopsies were taken for histology. The activities of CD, UC and pouchitis were defined with the use of clinical, endoscopic and histological activity scores (CDAI, partial Mayo score, PDIA, SES-CD, Mayo endoscopic subscore, D‘Haens and Rûley score). Fecal CP and MMP-9 levels were quantified by use of enzyme-linked immunosorbent assay.

RESULTS: Active CD, UC and pouchitis was detected in 38%, 54% and 29% of the patients. Significant correlation was revealed between fecal CP and the clinical activities of CD and UC, and between fecal CP and the endoscopic activity of UC and pouchitis. No correlation was found between fecal CP and the other examined activities. Fecal CP and pouchitis with PFR, NRL, DAI scores, clinical activity of CD were significantly correlated (p<0.05) in the investigated polymorphisms with either SCR or relapse after IFX discontinuation for clinical remission. Nevertheless, individual analysis of patients with luminal CD interestingly showed that NA2/NA2 homozygosity in FcγRIIIa (n=87) were analyzed by PCR-RFLP / TaqMan.

RESULTS: With a median follow up of 9.7 (IQR 8.1-11.5) years, 52/100 patients had SCR. Univariate (Log-Rank) analysis revealed no significant association of the investigated polymorphisms with either SCR or relapse after IFX discontinuation for clinical remission. Nevertheless, individual analysis of patients with luminal CD interestingly showed that NA2/NA2 homozygosity in FcγRIIIa was associated with increased risk for relapse (HR:2.4, 95%CI:1.1-5.3, p=0.021). Moreover, Cox regression analysis identified NA2/NA2 homozygosity as an independent variable predicting relapse after IFX cessation (HR:2.3, 95%CI:1.03-5.1, p=0.043).

CONCLUSION: We identified that FcγRIIIa NA2/NA2 homozygosity is an independent factor predicting relapse in patients with luminal CD who discontinued IFX for clinical remission. The lack of NA1 variant, which shows a higher affinity for IgG1 and probably leads to a more efficient downstream effects (antibody-cellular dependent cytotoxicity), may therefore predispose to relapse after IFX cessation in patients with luminal CD, for whom NA1 homozygosity was previously found to be associated with higher biological response to IBD in IBD patients.

REFERENCES


Disclosure of Interest: K. Papamichail Consultancy for: MSD Hellas, M. Arias: None declared, M. Ferrante Financial support for research from: Janssen Biosciences, Lecture fees (from) Merck, Tilloots, Ferring, AbbVie, Consultancy for: AbbVie, Merck, Janssen Biosciences, V. Baller: None declared, K. Claes: None declared, W. J. Wollants: None declared, G. Van Assche Financial support for research from: AbbVie, Ferring, Lecture fees (from) Janssen-Cilag, Merck, AbbVie, Consultancy for: PDL BioPharma, UCB Pharma, Sanofi-Aventis, AbbVie; Ferring: Novartis, Abbott, Amgen, Janssen Biologics. I. Foldesi: Novartis Ireland, Zealand Pharma A/S, Millenium/Takeda, Shire, Novartis, BMS, P. J. Rutgeerts Financial support for research from: UCB Pharma, AbbVie, Janssen Biosciences, Novartis. A. A. Macpherson: None declared, M. Ferrante Financial support for research from: UCB Pharma, AbbVie, Consultancy for: Amgen, Merck, UCB Pharma, Genentech, BMS, AbbVie, Janssen Biosciences, Millenium, Neovacs, Actogenetics, Prometheus, S. Vermeire Financial support for research from: UCB Pharma, MSD, AbbVie, Lecture fees (from) AbbVie, Merck, Ferring, UCB Pharma, Centocor, Consultancy for: UCB Pharma, AstraZeneca, Ferring, AbbVie, Merck, Ferring, Shire, Pfizer

OPI40 PHARMACOLOGICAL INTERVENTION BASED ON FECAL CALPROTECTIN LEVELS IN PATIENTS WITH ULCERATIVE COLITIS AT HIGH RISK OF A RELAPSE: A PROSPECTIVE, RANDOMIZED, CONTROLLED STUDY

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INTRODUCTION: Pharmacological treatment of ulcerative colitis (UC) is traditionally divided into treatment of active disease and treatment to maintain remission. Recently, targeted therapy for patients at increased risk of flares, using markers to detect subclinical disease activity, may be of the utmost importance. The objective of this study was to assess if fecal calprotectin (FC), as a marker for inflammatory activity, can be used to guide medical intervention, to maintain remission in patients with UC.

AIMS & METHODS: In this open-label, prospective, controlled study, 91 adult patients with UC in clinical remission, and under treatment with an oral 5-ASA agent, were randomized to either an intervention group (n=51) or a control group (n=40). In the intervention group, at least one flare within one year prior to the