is recommended as one of imaging techniques for detection of intestinal involvement of CD, but its findings in the deep small intestine have not been well compared to the endoscopic findings. We developed MR enterocolonography (MREC) to assess CD lesions in small intestine and colon simultaneously.

On the other hand, device-assisted enteroscopy is able to assess the mucosa in detail, as well as to take histopathological specimen. Additionally, endoscopic therapeutic procedures such as balloon dilatation for stenoses are available. The aim of this study was to evaluate the efficacy of MREC by comparing its findings to those of enteroscopy.

Methods: MREC and enteroscopy were performed in the same day in eighty patients. The segmentation and assessment of the endoscopic findings were defined based on modified SES-CD. The terminal ileum was defined up to 10 cm from the ileocecal valve; the proximal ileum was defined as part of bowel extending between the proximal end of the terminal ileum up to 300 cm from the valve; the jejunum was defined as proximal part of small bowel. We summed the three scores of ‘size of ulcers’, ‘ulcerated surface’ and ‘affected surface’, and the active lesions were defined in the following manner; major mucosal lesions (MML: sum ≥5), all mucosal lesions (AML: sum ≥1). Major stenoses were defined as the lesions that the scope could not pass through. MREC sensitivity and specificity were studied.

Results: The scope was passed in retrograde fashion and reached the proximal ileum in 78 patients (97.1%), the jejenum in 34 patients (42.5%), and the entire intestine in 9 patients (11.3%). In the assessment of active lesions, MREC sensitivities in the colon for MML and AML were 75.0% and 51.0%, while specificities were 91.3% and 94.3%, respectively. MREC sensitivities in the small intestine for MML and AML were 79.2% and 66.0%, while specificities were 89.2% and 95.7%, respectively. As for intestinal damage in the small intestine, MREC sensitivity and specificity for major stenoses were 57.1% and 91.0%, while those for all stenoses were 37.8% and 93.5%, respectively.

Conclusions: Our protocol of MREC technique is useful in detecting active lesions in both the small intestine and colon. However, MR imaging is not sensitive enough in detecting stenosis. Evaluation of active lesions is important to determine medical treatment, while that of intestinal damage is important to determine the indication of surgical or endoscopic treatment. Adequate choice of modalities is required for assessing CD lesions.

P259
Comparative retrospective assessment of prospectively recorded endoscopic and histological findings between CD and GI-TB: the first Eastern European registry data

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Background: Diagnosis of gastrointestinal tuberculosis (GITB) and its differentiation from Crohn’s disease (CD) may be challenging. Most of the available morphological and histological relatively old data comes from Asian countries where the incidence of TB is high.

Methods: This is the retrospective assessment of the IBD registry cohort including GITB. The aim of this Eastern European study was to revalidate whether endoscopic morphology and/or histological features of inflammed tissue could differentiate CD from GITB as it was claimed in Asian counterpart where IBD is relatively rare. Twenty out of 32 GITB patients whose diagnosis was based on either intestinal tissue culture or tissue TB-PCR positivity, and each with subsequent complete clinical and endoscopic response to treatment, and 40 CD patients who were under the same IBD registry, including the patients before and after each GITB case, were selected. Additionally, both CD and GITB cases has been chosen according to availability of clear endoscopic digital pictures and descriptions leading us to get appropriate morphological informations. Endoscopically, GI inflammation was defined as focal single, focal multiple, segmental or diffuse and the extent of the disease was determined by combination of endoscopic and radiological methods like CT or enteroclysis. Endoscopic and histologocal features (particularly presence of granuloma) were compared between two patient groups. These patients’ endoscopic features were blindly evaluated by 2 gastroenterologists, and kappa statistic was performed to assess interobserver variability.

Results: While all colonic involvements were equally distributed between GITB and CD, colcal involvement significantly indicated GITB (84%/37%, p<0.001) in contrast to CD with 87%/63% (p=0.042) ileal involvement. Caseating or non-caseating granuloma was significantly more common in GI-TB (88%) compared to CD (17%) (=25.186, p=0.000).

Table 1. Endoscopic features in patients with CD and GI-TB

<table>
<thead>
<tr>
<th>Endoscopic features</th>
<th>CD (n = 40)</th>
<th>GI-TB (n = 20)</th>
<th>p</th>
<th>kappa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longitudinal ulcers</td>
<td>23 (57.5%)</td>
<td>2 (10%)</td>
<td>0.000</td>
<td>0.579</td>
</tr>
<tr>
<td>Aphthous ulcers</td>
<td>17 (42.5%)</td>
<td>0.001</td>
<td>0.512</td>
<td></td>
</tr>
<tr>
<td>Circular ulcer</td>
<td>3 (7.5%)</td>
<td>18 (90%)</td>
<td>0.000</td>
<td>0.643</td>
</tr>
<tr>
<td>Nodularity</td>
<td>6 (15%)</td>
<td>17 (85%)</td>
<td>0.000</td>
<td>0.454</td>
</tr>
<tr>
<td>Pseudopaps</td>
<td>10 (25%)</td>
<td>0.023</td>
<td>0.386</td>
<td></td>
</tr>
<tr>
<td>Cobblestone apperance</td>
<td>7 (17.5%)</td>
<td>0.084</td>
<td>0.611</td>
<td></td>
</tr>
<tr>
<td>Stricture</td>
<td>10 (25%)</td>
<td>9 (45%)</td>
<td>0.116</td>
<td>0.592</td>
</tr>
<tr>
<td>Star shaped</td>
<td>30 (75%)</td>
<td>2 (10%)</td>
<td>0.000</td>
<td>0.233</td>
</tr>
<tr>
<td>Cacal deformation</td>
<td>1 (2.5%)</td>
<td>7 (35%)</td>
<td>0.001</td>
<td>0.932</td>
</tr>
</tbody>
</table>

Table 2. The distribution pattern and sites of involvement in patients with CD and GI-TB

<table>
<thead>
<tr>
<th>Distribution pattern and sites of involvement</th>
<th>CD (n = 40)</th>
<th>GI-TB (n = 19)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal single</td>
<td>1 (3.3%)</td>
<td>0.322</td>
<td></td>
</tr>
<tr>
<td>Focal multiple</td>
<td>18 (45%)</td>
<td>0.169</td>
<td></td>
</tr>
<tr>
<td>Segmental</td>
<td>1 (2.5%)</td>
<td>3.15 (85%)</td>
<td></td>
</tr>
<tr>
<td>Diffuse</td>
<td>19 (47.5%)</td>
<td>10 (52.6%)</td>
<td></td>
</tr>
<tr>
<td>Mean number of involved segments</td>
<td>2.4±1.9</td>
<td>2.5±1.3</td>
<td></td>
</tr>
</tbody>
</table>

Conclusions: The most distinguishing endoscopic features were longitudinal and aphthous ulcers for CD, in contrast to nodularity and circular ulcers for GITB with moderate interobserver variability. None of the endoscopic distribution pattern was significant for neither of the diseases, except highly specific but poorly sensitive CD indicator, cobblestoning. Presence of granuloma (mostly non-caseous) is more suggestive for GI-TB rather than CD.

P260
Clinical usefulness of serum IL-32 in Crohn’s disease

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Background: IL-32 is a newly discovered cytokine and induces other proinflammatory cytokines including IL-1 beta, IL-6, TNF-alpha, and chemokines. Recent study demonstrated that IL-32 is overexpressed markedly in the inflamed tissues from patients with Crohn’s disease (CD). We investigated the
association with serum IL-32 titer and clinical manifestation of patients with CD, and identify whether serum IL-32 test is helpful in the differential diagnosis between CD and intestinal tuberculosis (ITB).

Methods: Serum samples from 48 patients with CD, 46 patients with ITB and 20 normal control were collected. Serum IL-32 gamma (most active isoform of IL-32) titer was measured by IL-32 gamma specific sandwich ELISA.

Results: Serum IL-32 gamma titer in patients with CD was significantly elevated compared with patients with ITB and normal control (p < 0.01). Between patients with ITB and normal control, serum IL-32 gamma titer were not significantly different. In patients with CD, serum IL-32 gamma titer tended to be increased patients with clinical symptoms such as weight loss, abdominal pain and hematochezia, and patients with lesion involved small bowel and anorectal area (p > 0.05). In patients with CD, serum IL-32 gamma titer of normal CRP group was higher than elevated CRP group, but there was no significant difference between two groups (p = 0.068). The sensitivity, specificity, positive predictive value and negative predictive value of serum IL-32 gamma titer for diagnosis of CD were 64.6%, 73.9%, 45.7% and 54.3%, respectively.

Conclusions: Serum IL-32 gamma titer can represent CD activity and be helpful in the differential diagnosis between CD and ITB. However, prospective large studies are needed to verify the clinical usefulness of serum IL-32 gamma titer in diagnosis and monitoring of CD.

P261
Clinical usefulness of fecal calprotectin measurement in predicting intestinal involvement of Behcet’s disease: preliminary results

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Background: Fecal calprotectin (FC) concentration directly represents the degree of intestinal inflammation. It is established that FC level predicts the clinical course of inflammatory bowel disease. However, little is known about the impact of FC in patients with intestinal Behcet’s disease (BD).

Methods: Fifteen consecutive patients with systemic BD who undertook colonoscopy for evaluation of gastrointestinal symptoms were prospectively enrolled between November, 2012 and March, 2013 in Severance hospital, Seoul, Korea. Fecal specimens from the patients were obtained one day before starting bowel preparation. FC level was compared with colonoscopic outcomes, disease activity index for intestinal BD (DAIBD), and laboratory markers.

Results: Median age of the patients was 43 (31–68) and nine (60%) were male. Of them, 11 (73.3%) showed intestinal ulcers (five typical and six atypical ulcers). Terminal ileum was the most frequent location (81.8%). Three definite intestinal BD (27.3%) and eight probable intestinal BD (72.7%) were diagnosed from the established criteria. Median FC level in patients who had typical intestinal ulcers was significantly higher than in those with atypical ulcers or without ulcers (567.83 μg/g [327.12–1604.39], 51.75 μg/g [20.14–95.18] and 58.36 μg/g [6.04–103.53], respectively; P = 0.004 and 0.016, respectively). However, CRP level and DAIBD in patients with typical ulcers were not significantly different from those in patients with atypical ulcers or without ulcers.

Conclusions: High FC level was clearly correlated with typical intestinal BD ulcers. FC level might have a significant role as a non-invasive surrogate marker of intestinal involvement of BD.

P262
Clinical outcome of perianal Crohn’s disease: Natural history and impact of medical and surgical strategies over time

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Background: Perianal Crohn’s disease (pCD) is associated with complications leading to recurrent surgery and tissue damage. Immunosuppressive drugs (IS) including anti-TNF have changed the management of pCD. Our aim was to describe the management and the natural history of a cohort of patients with active pCD and to identify predictive factors of poor evolution.

Methods: A retrospective study of pCD patients registered in the database of the university hospital of Liege, Belgium. Perianal lesions included abscess, fistulae, anal fissure, anal strictures. pCD treatments included antibiotics, surgical drainage (with or without seton), stoma. Medical treatments including IS and anti-TNF were recorded at pCD diagnosis and over follow-up. pCD relapse was defined as antibiotic therapy for recurrent abscess, the need for surgical drainage or stoma. The subgroups of patients followed before (old cohort) and after (young cohort) the year 2000 were compared in a subanalysis.

Results: 181 patients with pCD were included. Mean follow-up was 7.9 years. Mean time between CD and pCD diagnosis was 6.3 years. Lesions at pCD diagnosis were abscess in 93/181 (51%), fistula in 91/181 (50%; 77/93 of complex fistulae), anal fissure in 28/181 (15%), anal stricture in 18/181 (10%). At diagnosis abscess drainage was performed in 31/181 (17%), drainage + seton in 44/181 (24%), stoma in 18/181 (10%), 132/181 (74%) and 83/181 (47%) had IS and anti-TNF respectively at pCD diagnosis. Relapse rate was 51% within a mean time of 33 months. During follow-up 15% required a stoma. Predictive factors of relapse were perianal abscess (p < 0.0001, HR=4.4), fistula (p < 0.0001, HR=4.5) or surgical drainage at diagnosis (p < 0.0001, HR=4.5), young age at pCD diagnosis (28 versus 31 yo, p = 0.02), short time between CD and pCD diagnosis (5.7 versus 7 years, p = 0.01), IS (p = 0.04, HR=1.8) and anti-TNF (p = 0.01, HR=1.5) at pCD diagnosis. Anti-TNF during follow-up, time to introduce them and duration of anti-TNF treatment were not predictive of relapse. The young and old cohort had the same characteristics at pCD diagnosis except a higher use of IS (87% vs 48%, p < 0.0001) and anti-TNF (3% vs 68%, p < 0.0001) in the young cohort. Clinical outcome including the time to relapse, type of relapse, need for surgery and stoma was similar in both cohorts.

Conclusions: In our cohort of pCD patients half of them had a perianal relapse over the time requiring surgery in more than 2/3 of them. At pCD diagnosis perianal abscess, fistula, surgical drainage, young age, treatment with IS or anti-TNF were associated with a higher risk of relapse. Although higher prescription of anti-TNF and IS in the last years new treatment strategies have not impacted the outcome of pCD.

P263
Clinical impact of magnifying chromoendoscopy on assessment of mucosal healing and prediction of disease relapse in quiescent ulcerative colitis

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Background: Mucosal healing (MH) has emerged as an important treatment goal in ulcerative colitis (UC). Several previous studies showed that achievement of mucosal healing is associated with medium- and long-term clinical outcome. However, there is no validated definition of MH. The aim of this study is to examine the usefulness of magnifying colonoscopy for evaluation of MH in UC.