Conclusions: Unsupervised clustering from daily symptom scores of SCCAI accurately classified most patients. Most importantly, it separated those in remission from those with active disease. It also enabled sub-classification of those with active disease.

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The variation of faecal calprotectin after 3 months of anti-TNF therapy is a predictor of sustained clinical remission in patients with Crohn's disease

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Background: Mucosal healing is recognised hitherto as the best therapeutic endpoint in patients with Crohn's disease (CD) but its use in daily practice is limited by the low acceptability of repeated colonoscopies. In this context, faecal biomarkers are attractive alternatives. Faecal calprotectin (Fcal) is a reliable marker of endoscopic mucosal activity. However, its sensitivity to change under treatment remains poorly evaluated.1-2 In the present study, we aimed to assess if the level of Fcal after 12 weeks of anti-TNF therapy was predictive of steroids-free clinical remission (CFREM) at 1 year.

Methods: CD adult patients needing anti-TNF therapy with CDAI >150 and elevated Fcal (>100 µg/g) were consecutively enrolled in this prospective study. Fcal measurement (immunochromatographic assay) was performed before starting medication (Week 0) and at 12 weeks (Week 12). Patients were treated with adalimumab or infliximab in monotherapy or combination therapy with immunosuppressive drugs. Therapeutic intensification was performed from Week 12 only in cases of clinical relapse (CDAI > 150 requiring therapeutic intensification, hospitalisation or surgery). CFREM was defined as CDAI <150 and CRP < 5 g/l with no switch of anti-TNF agents and no bowel resection.

Results: Overall 40 CD patients were included (Table 1). The median Fcal level at Week 12 was significantly lower (646.0 µg/g [315.0–1567.0] vs. 100.0 µg/g [100.0–193.0], p < 0.001) and the relative decrease of Fcal between Weeks 0 and 12 was higher (83.3 % [33.6–83.3%] vs. 0.0 % [0.0–33.2 %], p = 0.001) in the patients in CFREM compared with those who were not. Using ROC curve (AUC = 0.85), we determined that an Fcal < 300 µg/g was the best threshold for predicting CFREM at 1 year (Se = 84.6%, Spe = 77.8%, PPV = 64.7%, NPV = 91.3%, accuracy = 80.0%). A 50% decrease of Fcal was also predictive of CFREM at 1 year (AUC = 0.82, Se = 61.5%, Spe = 88.9%, PPV = 72.7%, NPV = 82.8%, accuracy = 80.0%). We studied the complementarity of these two thresholds by creating a composite criterion called biological response (Fcal < 300 µg/g at Week 12; or, for patients with initial Fcal < 300 µg/g, at least 50% decrease or normalisation of Fcal (< 100 µg/g)). Biological response predicted CFREM at 1 year with the following performances: Se = 76.9%, Spe = 92.6%, PPV = 83.3%, NPV = 89.3%, accuracy = 87.5%. Furthermore, Fcal < 300 µg/g or a biological response at Week 12 were protective factors of therapeutic intensification for clinical relapse: Hazard ratio (HR) = 0.15[0.03–0.67] (p = 0.013) and HR = 0.11[0.01–0.85] (p = 0.035), respectively.

Conclusions: Fcal is a reliable biomarker to assess therapeutic efficacy in patients with CD treated with anti-TNF therapy; Fcal should be considered as a therapeutic target in patients with CD.

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Factors influencing outcomes from surgery for Crohn's disease: A perspective from a district hospital

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Background: Crohn's disease has always posed a challenge to surgeons especially in the light of newer biological agents and immunosuppression. Although medical management of Crohn's disease has changed in the recent years, it is unclear whether surgical management during the various stages of the disease has an impact. We present our series with the aim of evaluating the effect of various factors on outcomes from surgical intervention for Crohn's disease.

Methods: Consecutive patients undergoing surgical intervention for Crohn's disease were recruited. Factors such as pre-operative medications including steroids, immunosuppressant and biologics, ASA grade, indications for surgery, emergency or elective surgery and laparoscopic or open surgery were analysed against outcomes from the surgery including complications [Clavien-Dindo classification], recurrence and remission period from surgery.

Results: A majority of the patients that eventually required surgical intervention were in the age group of 20–30 years at the time of diagnosis. A time period of 10–15 years would have elapsed before they require their first surgical intervention in majority of patients. Few patients required their first surgical intervention within 5 years of diagnosis. In decreasing order of frequency, the indications for surgery were intestinal obstruction, internal fistulae, enterocutaneous fistula and adverse reaction to immunomodulators/biologics. Most of the patients were on three classes (aminosalicylates, steroids, immunomodulators or immunosuppressants) of medical management at the time surgical intervention is required. Moreover, the duration of being on medical treatment varied between 2 and 19 years before surgical intervention was done. The various surgeries that were carried out were right hemicolectomy, pan-proctocolectomy, segmental ileocolic resection and small-bowel resections. These were carried out laparoscopically where feasible with a low conversion rate. Of the complications encountered, very few were beyond Clavien-Dindo class II. The median remission time was 5 years. Recurrence within a 5-year period appeared to be related to margin positivity following surgery.

Conclusions: Surgery remains an important component of the multimodality treatment of IBD, required in 70–80% of patients with Crohn's disease. The use of pre-operative steroids and immunosuppressants did not appear to increase our rate of complications. In our series, there was a 20–30% symptomatic recurrence rate in the first year after surgery, with a 10% increase in each subsequent year. These recurrence rates were influenced by the use of Infliximab and azathioprine along with steroids in the post-operative phase.