Introduction

Meta-analysis of published literature suggests that up to 14% of upper gastrointestinal cancer (UGIC) subjects had a negative oesophagogastroduodenoscopy (OGD) up to 3 years prior to diagnosis. We have examined how often UGIC is missed at OGD in our organisation and associated risk factors.

Methods

Computerised OGD records from Sandwell General and City Hospitals between 1999 and 2007 were retrieved and submitted to the West Midlands Cancer Intelligence Unit (WMCIU) for UGIC registrations linkage. Subjects undergoing OGD 3 months to 5 years before diagnosis were identified as potentially missed UGIC cases and those with no OGD 3 months to 5 years before diagnosis served as controls. The influence of age, gender, indication, endoscopy specialty, trainee involvement, sedation use, number of biopsies taken, and histology of UGIC on missed UGIC were examined by logistic regression analysis.

Results

36577 OGD records were submitted to WMCIU for cancer linkage and 524 UGIC were linked. 419 control UGID. 388 (93%) had OGD 1–3 years prior and 30 (63%) gastric cancer (GC); 42 (40%) had OGD 3 months to 1 year prior to diagnosis. W

Conclusion

A rational evaluation of the effectiveness and safety of HSCIT will be presented for the first time at BSG 2013.

Disclosure of Interest

None Declared

IBD free papers

OC-014 CLINICAL AND ENDOSCOPIC IMPROVEMENT FOLLOWING HEMOPOIETIC STEM CELL TRANSPLANTATION VS MOBILISATION ALONE IN CROHN’S DISEASE

doi:10.1136/gutjnl-2013-304907.014

1 C Hawkey, 2 M Allez, 3 S Ardizzone, 4 L Clark, 5 J-F Columbel, 6 S Danese, 7 Farge-Bancel, 8 M Labopin, 9 J Lindsay, 10 A Norman, 11 F Onida, 12 E Ricart, 13 G Rogler, 14 M Rovira, 15 N Russell, 16 J Satsangi, 17 S Travis, 18 A Tyndall, 19 S Vermeire. 1Nottingham Digestive Diseases Centre, University of Nottingham, Nottingham, UK; 2Service de Gastroenterologie, Hospital Saint-Louis, Paris, France; 3IBD Unit, L Sacco University Hospital, Milan, Italy; 4EBMT Clinical Trials, European Group for Blood & Marrow Transplantation, London, UK; 5CHRU Lille, Hospital Hurnie, Lille, France; 6Dept of Gastroenterology, Institut Clinico Humanitas, Milan, Italy; 7Unite de Medecine Interne et Pathologie Vascular, Hospital Saint-Louis; 8European Group for Blood & Marrow Transplantation, Paris, France; 9Digestive Diseases CAU, Barts & The London School of Medicine, London, UK; 10Hematology-BMT Center, University of Milan, Milan, Italy; 11Gastroenterology Department-CIBER-EHD, Hospital Clinic, Barcelona, Spain; 12Klinik fur Gastroenterologie und Hepatologie, University Hospital of Zurich, Zurich, Switzerland; 13BMT Unit, Hospital Clinic, Barcelona, Spain; 14Gastrointestinal Unit, Molecular Medicine Unit, University of Edinburgh, Edinburgh, UK; 15Translational Gastroenterology Unit, John Radcliffe Hospital, Oxford, UK; 16Dept of Hemato-oncology, University Hospital Basel, Basel, Switzerland; 17Department of Gastroenterology, University Hospitals Leuven, Leuven, Belgium

Introduction

The Autologous Stem Cell Transplantation Internation Crohn's Disease (ASTIC) Trial is a randomised controlled trial co-sponsored by ECCO and EBMT and funded by the Broad Foundation that investigates immunoaablation and hemopoietic stem cell transplantation (HSCIT) in Crohn’s disease (CD) over 1 year: all patients will have reached this endpoint by April 2013.

Methods

Patients with impaired quality of life due to active CD, despite ≥ 3 immunosuppressive agents all underwent mobilisation (IV cyclophosphamide 4 g/M2 over 2 days then filgrastim10µg/kg/day) before randomisation to immediate (1 month) or deferred (5 months) HSCIT. The conditioning regime was IV cyclophosphamide 50mg/kg per day for 4 days, anti-thymocyte globulin 2.5 mg/kg/day and methyl prednisolone 1mg/kg on days 3–5. The bone marrow was reconstituted by infusion of an unselected graft of 3–8 × 1010/kg CD34 +ve stem cells. Clinical (CDAI), endoscopic (SES-CD) quality of life and safety data are compared 1 year after mobilisation alone or after mobilisation and HSCIT.

Results

As of Jan 2013, data are available on 34/45 patients. Following mobilisation and HSCIT, the CDAI fell from 317 (median, IQR 220–370, n = 34) to 157 (71–246, n = 17) vs 351 (313–446) and 298 (220–370, n = 17) with mobilisation alone. The aggregate lower GI SES-CD score was 13.0 (8.5–24.5) before and 3.0 (1.5–10.0) after HSCIT compared to 13.0 (6.5–15.5) before and 6.5 (3.5–17.8) after mobilisation alone. Overall the study will end 2012 there were 62 SAEs in 19 patients randomised to early transplantation (3.3 per patient) and 58 in 18 patients randomised to delayed transplantation (3.2 per patient). One patient died following HSCIT. Final results of the study will be available to be presented for the first time at BSG 2013.

Conclusion

Immunoaablation and HSCIT appears to be an effective treatment for CD that may substantially reduce endoscopic evidence of disease but incurs significant toxicity. The final results of the trial will allow a rational evaluation of the effectiveness and safety of HSCIT to be discussed at BSG 2013.

Disclosure of Interest

None Declared
are few explanations for the wide variation in inter-individual TPMT activities in the wild-type range. Bioavailability of the cofactor S-adenosylmethionine (SAM) and RBC age may play a role. The aim of this study was to determine if gender or anaemia influences RBC TPMT activity.

**Methods** We analysed a retrospective cohort of 6,496 RBC TPMT samples (n = 3,804 females, n = 2,692 males) measured in the PRL since 2004 and correlated enzyme activity with gender and haemoglobin concentrations.

**Results** A greater portion of females exhibited intermediate TPMT activity (13.46%) as compared to males (11.07%). The mean TPMT activity was also significantly lower in females (32.94 pmol/mg Hb/h) versus males (34.13 pmol/mg Hb/h; p < 0.0001, 95% CI 0.7950–1.589). When separated by low, intermediate or normal Hb/h, this relationship only remained in patients with normal TPMT activity. TPMT activity was significantly higher in female patients with an Hb < 10g/dl (n = 250, mean TPMT 38.06 pmol/mg Hb/h) versus females with an Hb > 12g/dl (n = 2192, mean TPMT 32.46 pmol/mg Hb/h; p < 0.0001). Similarly TPMT activity was significantly higher in male patients with an Hb < 10g/dl (n = 128, mean TPMT 35.14) versus males with an Hb > 12g/dl (n = 1901, mean TPMT 35.76; p < 0.0001).

**Conclusion** TPMT activity in the wild-type range is lower in females than males, suggesting a post-translational influence on TPMT activity related to gender. Lower levels of SAM have been reported in females, which may explain this observation. Re-appraisal of the concordance between TPMT genotype and phenotype, adjusting for gender is therefore indicated. The finding of higher TPMT activity with anaemia may be due to a younger red cell population in this group. The difference in TPMT activities between patients with or without anaemia is clinically relevant, particularly where the TPMT activity is around the cut-off between intermediate (10–25 pmol/mg Hb/h) and normal (≥26 pmol/mg Hb/h) ranges. TPMT genotyping should be considered in such patients.

**Disclosure of Interest** None Declared

**REFERENCES**


**OC-016** ELEVATED FECAL CALPROTECTIN PREDICTS DISEASE PROGRESSION IN CROHN'S DISEASE
doi:10.1136/gutjnl-2013-304907.016

1 N A Kennedy, 2I Chang, 3M H Guv, 3T Smith, 3J T Loh, 2D Haunschmidt, 3M Muscat, 2F Fasci Spurio, 3H E Drummond, 3K Kingstone, 2C L Noble, 2A G Shand, 2S Satansaji, 1D Arnott, 2C W Lees. Gastrointestinal Unit, Molecular Medicine Centre; 2Department of Gastroenterology; 3Department of Clinical Biochemistry, Western General Hospital, Edinburgh, UK

**Introduction** Historical cohort studies have clearly demonstrated that over time the majority of patients with Crohn's disease (CD) will progress from inflammatory (B1) to strictureting (B2) or fistulizing (B3) disease. Emerging data suggest that more intensive treatment targeted towards mucosal healing will help to prevent disease progression. Faecal calprotectin (FC) is an established surrogate biomarker for endoscopic mucosal healing. It has yet to be established whether tailoring therapy to FC levels prevents disease progression.

In the present study we aimed to determine whether FC levels in patients with established CD were predictive of disease progression.

**Methods** The Edinburgh Faecal Calprotectin Registry (EFCR) comprises data on 22,130 FC assays in 16,278 patients from 2005–2012. Detailed phenotypic information was obtained on patients with CD by retrospective casenote review. Data collected included demographics, disease location, disease behaviour over time, CD-related surgery, investigations, hospitalisations and drug therapy.

Patients were included in the main analysis if they had at least 12 months' follow-up since first FC. The a priori primary endpoint was a composite of progression in Montreal luminal behaviour, hospitalisation for flare and resectional surgery.

**Results** There were 881 CD patients identified with at least one FC, of which 723 had at least one year’s follow-up, with median follow-up time 40 months (IQR 25–60). The median age was 28y (IQR 20–42) at diagnosis and 40y (28–53) at time of first FC.

239 patients (33%) reached the primary endpoint, of whom 68 had had progression of their Montreal behaviour from B1 to B2 or B3, or from B2 to B3.

The median of the earliest FC was significantly higher in the group that reached the primary endpoint at 586 μg/g (IQR 210–1235) vs. 289 (75–1001) in those that did not (p < 0.0001). Survival analysis (Fig 1) revealed significant differences in time to progression, hospitalisation or surgery with calprotectin ≥ 200 (p < 0.0001).

**Conclusion** This large single-centre study presents compelling evidence that measurement of FC can be used to predict disease course, which creates the opportunity for physicians to intervene earlier and perhaps alter the disease course.

**Disclosure of Interest** None Declared

**OC-017** A DISCRIMINANT ANALYSIS DEMONSTRATES THAT SIBLINGS OF PATIENTS WITH CROHN'S DISEASE HAVE A DISTINCT MICROBIOLOGICAL AND IMMUNE PHENOTYPE COMPARED WITH HEALTHY CONTROLS: INSIGHTS INTO DISEASE PATHOGENESIS
doi:10.1136/gutjnl-2013-304907.017

1 C Hedin, 2N E McCarthy, 2P Louis, 2F Farquharson, 2S McCartney, 3K Taylor, 4S Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay. 1,2,*C Hedin, 2N E McCarthy, 3P Louis, 3F Farquharson, 4S McCartney, 5K Taylor, 5N Prescott, 2T Murrells, 2A J Stagg, 2J O Lindsay.

**Introduction** Crohn’s disease (CD) is associated with genetic risk, intestinal dysbiosis, altered blood T-cell phenotype, increased faecal calprotectin (FC) and intestinal permeability (IP). Factors shared by CD patients and unaffected siblings may be implicated in CD pathogenesis.

**Abstract OC-016 Figure 1**

**Abstract OC-017 Figure 1**

**Abstract OC-016 Figure 1**

**Abstract OC-017 Figure 1**