Welcome to this review of the 10th Congress of the European Crohn’s and Colitis Organisation (ECCO), which took place in Barcelona, Spain.

Over the years, this Congress has developed into a major educational event, both clinically and scientifically, in the field of inflammatory bowel diseases (IBD) in Europe and it enjoys immense popularity worldwide.

ECCO’15 encompassed a broad and exciting scientific programme, covering all aspects of adult and paediatric care, medical and surgical advances, aspects related to costs and quality of care, and increasing knowledge about the role of the environment in IBD. The Congress aims to advance the understanding of the causes of Crohn’s disease and ulcerative colitis, to share and discuss top-line results of therapeutic agents and algorithms, stimulate and promote the implementation of guidelines, and to ultimately improve patient care.

Professor Ian Lawrance is a Consultant Gastroenterologist and a Professor in the School of Medicine and Pharmacology, Faulty of Medicine and Dentistry at the University of Western Australia, Fremantle Hospital. He attended this Congress and selected the presentations included in this review.

We hope you enjoy these selections and look forward to your comments and feedback.

Kind Regards,
Professor Ian Lawrance
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Scientific session 2: Pharmacokinetics in clinical practice: Does it matter?

Adalimumab and infliximab levels in neonates (ERA study)

Presenter: M. Julsgaard, Aarhus University Hospital, Aarhus, Denmark

Summary: This worldwide study recruited pregnant women with inflammatory bowel disease (IBD) from Denmark, Australia and New Zealand, during the period 2012–2014.

Comment: The IBDs affect women during the childbearing age. Anti- tumour necrosis factor (TNF) therapy is required in 18% of Crohn’s disease (CD) and 5% of ulcerative colitis (UC) patients and adalimumab (ADA) and infliximab (IFX) are actively transported across the placenta, particularly in the third trimester. This study aimed to correlate the newborn cord blood anti-TNF-α levels with maternal levels, duration of therapy in pregnancy and time to the clearance of the drug in the infant. It also assessed pregnancy outcomes and child development, and risk of infection, in the first year of life. 89 women were recruited, but 5 (5.6%) miscarried and 4 failed blood collection, leaving 80 mother-baby pairs (44 IFX, 36 ADA). 49% were on thiopurines. There were 3 (4%) preterm births, 3 (4%) small for gestational age and 2 (2.5%) congenital malformations, which were all within expected levels in the general population.


Abstract

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Disease burden outweighs the impact of drug concentrations and antibodies to infliximab in primary non-response to infliximab in Crohn's disease patients

Presenter: T. Billiet, Department of Clinical and Experimental Medicine, KU Leuven, Translational Research in Gastrointestinal Disorders, Leuven, Belgium

Summary/Comment: Why some patients have a primary non-response (PNR) to IFX is not understood, with work examining IFX trough levels (TL) and the early development of antibody formation (ATI) being contradictory. This study investigated serum markers of inflammation and drug exposure to determine if there is a role for them in PNR. 201 anti-TNF naïve CD patients receiving IFX induction therapy had serum samples drawn at weeks 0, 2, 6 and 14. In all samples, C-reactive protein (CRP), albumin, TNF, ATI and TL were assessed. PNR was defined as complete absence of clinical improvement at week 14. PNR occurred in 8% (n=16) of patients. By univariate analysis, PNR was associated with low albumin at Week 6 (p=0.01). A rise in serum TNF levels occurred after each IFX infusion and in PNR this rise in TNF was significantly lower than in responders (p=0.03). Multiple logistic regression modelling identified that the TNF/CRP ratio, used as a marker of TNF-induced inflammation at Week 0, and albumin at Week 6, were independent predictors of PNR (p<0.01 for both). These findings suggest that a high disease burden indicated by low albumin, high CRP and high serum TNF, but not IFX TL or ATI, are driving PNR to IFX. This contradicts the theorem that PNR may be due to non-TNF-driven disease. The higher TNF/CRP ratio at Week 0 also suggests that the role of TNF in inflammation might even be greater in PNR, potentially requiring a higher anti-TNF loading dose.

Independent commentary by Professor Ian Lawrance MB, BS (Hons), PhD, FRACP

Ian Lawrance is a Consultant Gastroenterologist and a Professor in the School of Medicine and Pharmacology, Faculty of Medicine and Dentistry at the University of Western Australia, Fremantle Hospital. He has been the Director of the Centre for Inflammatory Bowel Diseases (IBDs) Fremantle Hospital from its inception in 2008.

He is a member of the Western Australian Drug Evaluation Panel (WADEP), currently sits on numerous pharmaceutical IBD drug advisory committees and is Co-Chair of the International IBD Genetics Consortium (IBDSC). Ian reviews papers, abstracts and research grants for many scientific organisations, and is a member of numerous editorial boards. He has been a principal investigator on >45, and the Australian lead on 3 international clinical IBD trials and served on 4 international publication committees investigating the use of novel medications in the treatment of IBD. Ian has written numerous IBD reviews and book chapters, and has presented over 170 scientific abstracts at national and international meetings.

Deep remission in Crohn's disease does not prevent disease relapse after withdrawal of anti-TNFα therapy

Presenter: M. Bortlik, ISCARE and Charles University, IBD Clinical and Research Centre, Prague, Czech Republic

Summary/Comment: Relapse rates of 33–44% by 1 year and about 50% by 2 years occur in CD patients following withdrawal of anti-TNF therapy. The risk factors for relapse include disease duration, male sex, previous anti-TNF therapy and TNF therapy dose intensification but there is no predictive value in the endoscopic or radiological findings. The aim of this study was to assess the proportion of CD patients who relapsed following cessation of biological treatment at the time of clinical and endoscopic remission off steroids, to identify potential risk factors. Patients were followed every 2 months during the first 6 months and every 3 months thereafter. Relapse was defined as clinical worsening of the disease confirmed by endoscopy and/or imaging procedure or new onset of perianal abscess both leading to change of the medical therapy or surgery. Sixty-one patients were followed-up for a median of 28 months (range 7–47). After withdrawal of IFX (n=44) and ADA (n=17), 47 (77%) patients continued thiopurines. Remission was maintained in 82% at 6 months, 59% at 1 year and 51% at 2 years. Overall, 32 (52.5%) patients relapsed with a median time to relapse of 8 months (range 1–25). The presence of deep remission (endoscopic healing: faecal calprotectin <150 mg/kg; CRP <5 mg/L) in 28 patients prior to ceasing TNF therapy was not predictive of maintaining remission (p=0.84). Smoking, disease behaviour, corticosteroid or thiopurine therapy, TNF therapy biological markers and anti-TNF trough levels were not predictive. Only disease location was a risk for relapse (colonic vs ileal/ileoepocolonic: p=0.01). These findings identify that about half of all CD patients will flare by 2 years, with the highest relapse rate occurring in the first year and in patients with ileal disease.
Scientific session 3: Optimal use of resources

The first prospective Australian population-based study of newly diagnosed IBD identifies frequent use of immunomodulators, low surgery rates and high cost from medications and investigations

**Abstract**

**Summary**

Scientific session 4: The gut barrier under attack: Therapeutic implications

Budesonide MMX® 9 mg for inducing remission in patients with mild-to-moderate ulcerative colitis not adequately controlled with oral 5-ASAs

**Summary/Comment:** Oral steroids are frequently required in UC but can have significant side effects. Budesonide is a corticosteroid with a high first-pass metabolism and a bioavailability of 12%. Budesonide MMX® (B-MMX) is a once-daily, extended-release oral formulation designed to provide targeted delivery to the colon. This was an 8-week study examining B-MMX 9 mg combined with the patient’s existing oral 5-aminosalicylic acid (5-ASA) (mesalamine ≥2.4 g/day or equivalent dose of another 5-ASA) compared to placebo (PBO) in a prospective, randomised 1:1, double-blind trial of mildly-to-moderately active UC patients (Ulcerative Colitis Disease Activity Index (UCDAI) score ≥4 and ≤10). The primary efficacy endpoint was combined clinical and endoscopic remission at Week 8, as defined by a UCDAI score of ≤1, with subscores of 0 for rectal bleeding, stool frequency and mucosal appearance. 408 patients were examined (230 B-MMX, 226 PBO). Combined clinical and endoscopic remission was achieved in 13% of B-MMX-treated and 7.5% of PBO-treated patients (p=0.049). Endoscopic remission was achieved in 20% of B-MMX-treated and 12.3% of PBO-treated patients (p=0.025). B-MMX also induced histological healing more frequently (27% vs 17.5%; p=0.016). Adverse events were reported in 31.5% of B-MMX-treated and 27.1% of PBO-treated patients, with the majority being mild or moderate in severity. Overall, despite the baseline use of oral 5-ASAs, patients experiencing a UC flare were more likely to achieve combined clinical and endoscopic remission with B-MMX 9 mg than placebo.

**OP002. Friday 20 February 2015: 10:00–10:10.**

**Abstract**

Patients with inflammatory bowel disease and a history of cancer: The risk of cancer following exposure to immunosuppression

**Summary/Comment:** Primary malignancies following immunosuppression include the lymphomas and skin cancers, but the rates and types of cancers associated with these agents have primarily been studied in patients without a prior history of IBD. This study aimed to investigate IBD patients with a cancer history and subsequent exposure to immunosuppression, to determine if there was an increased risk of developing new, or recurrent, cancer. Patients were identified as receiving thiopurines or methotrexate (MTX), anti-TNF therapy, anti-TNF therapy and an antimetabolite or no immunomodulating medication. Time to incident cancer was defined as death, colectomy, withdrawal from surveillance, or the detection of cancer at an earlier stage and for reducing the interval cancer risk, leading to better patient outcomes.

**OP008. Friday 20 February 2015: 08:50–09:00.**

**Abstract**

**Scientific session 9: What’s new on the guideline front?**

Forty-year analysis of colonscopic surveillance for ulcerative colitis reveals decreasing risk of interval and advanced cancer and reducing colectomy rate for dysplasia

**Summary/Comment:** Colorectal cancer (CRC) risk is increased in patients with UC, but this risk appears to have changed over time. This study examined 40 years of retrospective surveillance data at a single centre of historically-colonoscopically followed UC patients and the risk of dysplasia and dysplasia progression. The primary endpoint was defined as death, colectomy, withdrawal from surveillance, or the detection of cancer (January 1, 2013). Comparison was made per-decade CRC incidence rate over the last 40 years. Cancer detected in symptom-driven investigations or surgery prior to the next scheduled surveillance was defined as interval CRC. A total of 1375 patients underwent 8650 colonscopies (median 5 per patient; interquartile range [IQR] 4–9 per patient) during 15,234 patient-years of follow-up (likely to have later-stage primary cancers compared to the other study arms. During follow-up, 90 (29.4%) patients developed a subsequent cancer: 33 (12.9%) a new cancer, 38 (11.4%) a recurrent cancer, and 6 (2.3%) a new and recurrent cancer. The incident cancer rate per 100 person-years was 1.3 with 314 person-years of follow-up, 1.4 with 596 person-years of follow-up, 1.5 with 750 person-years of follow-up, 1.7 with 854 person-years of follow-up, 1.8 with 958 person-years of follow-up, 2.1 with 1126 person-years of follow-up, and 2.2 with 1271 person-years of follow-up. The overall CRC incidence rate decreased over the first three decades with a 3.3% increase in Duke’s A or B cancer incidence rate in the fourth decade (5.2 per 1000 patient-years [P1]). The 10-year survival rates of Duke’s A/B and C/D were 79.6% and 66.6% for the IBD and non-IBD populations, respectively, with surveillance-detected CRC having a 5-year survival of 81.8% compared to interval CRCs at 46.7%. These findings suggest that colorectal surveillance is increasingly becoming effective in detecting cancer at an earlier stage and for reducing the interval cancer risk, leading to better patient outcomes.

**OP018. Friday 20 February 2015: 17:20–17:30.**

**Abstract**

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Curcumin is an active phytochemical compound that is present in turmeric and may be efficacious in the management of UC. This study examined the utility of curcumin therapy (1.5 g twice daily) compared to placebo in a double-blind trial of mild to moderately active UC (Simple Clinical Colitis Activity Index (SCCAI) score of 5–13) already on 5-ASA therapy (4 g) for a minimum of 4 weeks. The primary outcome was the rate of clinical remission (SCCAI ≤2) at week 4. Clinical and endoscopic responses were also noted. The study enrolled 50 patients. Fourteen of 26 (54%) patients receiving curcumin achieved clinical remission at week 4 compared to 0/24 of patients receiving placebo (p = 0.01). Clinical response (reduction of ≥3 points in SCCAI) was achieved in 17/26 (65%) in the curcumin group versus 3/24 (12%) taking placebo (p = 0.001). Endoscopic remission (partial Mayo score ≤1) was observed in 8/21 (43%) of curcumin-treated patients compared to 0/16 on placebo (p = 0.043). Adverse events were rare and comparable between the groups. This study identifies that adding curcumin to 5-ASA therapy was superior to placebo for inducing clinical and endoscopic remission in mild-to-moderate active UC patients. Curcumin may thus be a safe and promising agent in the treatment of UC.

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Summary/Comment: MTX has utility in CD and augments the effect of the anti-TNF medications. There is, however, no study of parenteral MTX in UC. This was a prospective, controlled, randomised, double-blind trial of 25 mg/day MTX given parenterally compared to placebo in UC patients taking prednisone (10–40 mg/day). Efficacy of MTX at the 16-week primary endpoint was defined by a Mayo score ≤2 with no item >1, complete steroid withdrawal by forced tapering and no need for other immunosuppressive medication, anti-TNF therapy or colectomy. Secondary endpoints included clinical remission (Mayo clinical subscore ≤2 with no item >1) without steroids and no need for other immunosuppressants, anti-TNF or colectomy at Week 16 and/or Week 24. Mucosal healing was also assessed. One hundred and eleven patients were recruited (60 received MTX and 51 placebo). MTX efficacy at Week 16 was 32% vs 20% for placebo (p = 0.15). The secondary endpoint of clinical remission without steroids and no need for other immunosuppressants, anti-TNF or colectomy at Week 16 occurred in 42% on MTX and 23.5% of patients on placebo (p = 0.04). Other secondary endpoints were not significantly different. Serious adverse events were not different (p = 0.5). Overall, MTX treatment was not superior to placebo for the primary endpoint, however, the individual Mayo subscores were lower (rectal bleeding p = 0.04, stool frequency p = 0.03 and global score p = 0.06). Clinical remission was also induced without steroids in significantly more MTX-treated patients than placebo-treated patients, suggesting some utility for MTX in UC disease management.

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