

XPERT PERSPECTIVES

...from UEGW

Reporting on **IBD**



**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



Peter Higgins, MD
University of Michigan
Ann Arbor, MI

Corey Siegel, MD
Dartmouth-Hitchcock
Medical Center
Lebanon, NH

XPERT PERSPECTIVES

...from UEGW

Reporting on **IBD**



Special thanks to our supporters:



PROMETHEUS®
Therapeutics & Diagnostics

Janssen Biotech, Inc.



**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Long-term Efficacy of Rescue Therapy With
Infliximab in Steroid-Refractory Acute Attack
of Ulcerative Colitis (OP210)***

*Sjöberg M et al
UEGW 2011*

Methods

- Background
 - The long-term efficacy of infliximab treatment in steroid-refractory, severe attacks of UC is not well described
- Methods
 - Retrospective analysis of 212 patients hospitalized between 1999 and 2010 due moderate to severe UC
 - Patients were unresponsive to IV corticosteroids and received infliximab 5 mg/kg as rescue therapy

Results

- Colectomy-free survival:
 - 3 months: 70%
 - 12 months: 63 %
- Steroid-free, clinical remission:
 - 3 months: 50%
 - 12 months: 53%
- Among patients escaping colectomy at 3 months (n=149):
 - Maintenance immunosuppressive therapy was given to 55%
 - Anti-TNF given to 26%
 - 5-ASA or no maintenance treatment given to 19%
- Six patients died during follow-up, three of whom with possible connection to IFX rescue treatment

Results (Continued)

Clinical Data at Rescue Treatment (N=212)¹

Disease duration since diagnosis	2 (0-8) years
First attack of UC	75 (35%)
Extensive UC	186 (88%)
Severe attack of UC	165 (78%)
Maintenance therapy prior to admission	
None	108 (51%)
5-ASA	85 (40%)
Immunomodulators	19 (9%)
Dose of IV betamethasone prior to rescue treatment	8 mg
Number of rescue infliximab infusions	
1	125 (59%)
2 (week 0 + 2)	21 (10%)
3 (week 0 + 2 + 6)	66 (31%)

Conclusions

- Infliximab is an effective rescue treatment in a moderate to severe attack of steroid-refractory UC
- 63% of the patients had a colectomy-free survival and 53% were in steroid-free remission at 12 months, supporting the long-term benefit of IFX rescue therapy
- The risk of serious complications including deaths is low but not negligible

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Infliximab is an Efficient Rescue Therapy in
Acute Corticosteroid Resistant Ulcerative
Colitis (OP211)***

*Sjöberg M et al
UEGW 2011*

Methods

- Background
 - The value of infliximab as rescue therapy in severe UC has not been well studied
- Objective
 - Examine the efficacy of infliximab in patients with acute severe UC
- Methods
 - Observational, prospective study (2 centers)
 - 70 UC patients resistant to 1 week of IV steroid treated with infliximab as an alternative to colectomy
 - Efficacy defined as DAI: $\downarrow \geq 30\%$ and ≥ 3 points; bleeding: $\downarrow \geq 1$ point, score ≤ 1) including remission (DAI ≤ 2 , no subscore > 1)
 - Treatment
 - Infliximab induction with simultaneous initiation of long-term 6-MP
 - Scheduled infliximab used in patients who were 6-MP refractory or intolerant

Results

- Mean number of infliximab infusions: 3.3 ± 0.31 (1 to 15)
- After mean follow-up of 16.9 ± 1.6 mo 22 patients required colectomy
- Surgery due to primary nonresponse (4 to 12 weeks after first infusion) was required in 16% of patients
- Cumulative probabilities of colectomy were:
 - 6 months: 17%
 - 12 months: 25%
 - 18 months: 30%
 - 24 months: 36%
- Efficacy rates
 - 6 months: 80%
 - 12 months: 64%
 - 18 months: 50%
- Adverse events observed in 17% (infections 5.6%, acute infusion reactions 3%)
- Two patients died after colectomy (sepsis, stroke)

Conclusions

- Our results suggest that IFX seems to be an effective rescue therapy in this highly severe group of UC
- Early use of thiopurines may be the factor that improved clinical response in this cohort of patients

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Adalimumab Therapy Reduces
Hospitalization and Colectomy Rates in
Patients With Ulcerative Colitis: Data from
Controlled Trials (OP209)***

*Feagan BG et al
UEGW 2011*

Methods

- Objective
 - Assess the effect of adalimumab on risk reduction of all-cause and UC-related hospitalization
- Methods
 - Data assessed from 2 double-blind, placebo-controlled trials
 - Patients in the 160/80 mg induction and placebo arms of study 1 and patients in the ADA and placebo arms of study 2 were combined into a single dataset (N=939)
 - Hospitalization and colectomy events were based on serious AE reports reviewed by 2 gastroenterologists blinded to treatment
 - Risk of hospitalization was compared between the treatment arms using person-year based incidence rates

Results

- 33% reduction in percentage of patients hospitalized for any reason and 38% reduction in the number of all-cause hospitalizations for ADA vs placebo ($P<.05$)
- Reductions in UC-related hospitalization (38%) and number of hospitalizations (48%) were statistically significant
- Rates of colectomy were 27% lower with ADA vs placebo group ($P=NS$)

	ADA		Placebo		Risk Ratio (Placebo/ADA)	P-Value
	n/TAR	IR (n/100-PYs)	n/TAR	IR (n/100-PYs)	RR [95% CI]	
Percentage of patients hospitalized						
All-cause	67/378	18	59/219	27	1.5 [1.1, 2.2]	0.018
UC-related	45/389	12	48/221	22	1.9 [1.3, 2.8]	0.002
Number of hospitalizations						
All-cause	82/401	20	73/230	32	1.5 [1.1, 2.1]	0.0065
UC-related	53/401	13	58/230	25	1.9 [1.3, 2.8]	0.0007
Colectomy	14/399	3.5	11/229	4.8	1.4 [0.6, 3.0]	0.435

Conclusions

- ADA-treated patients had a significantly lower risk for UC-related and all cause hospitalization compared with placebo-treated patients
- A numerically lower colectomy rate in patients receiving ADA therapy vs placebo was observed

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Efficacy of Adalimumab in Patients With
Ulcerative Colitis: Restoration of Serum
Levels After Dose Escalation Results in a
Better Long-term Outcome (OP312)***

*Ferrante M et al
UEGW 2011*

Methods

- Background
 - Data on the long-term efficacy of adalimumab in UC are limited
- Methods
 - Long-term efficacy of adalimumab evaluated in 50 patients with moderate-to-severe UC previously treated with infliximab (IFX)
 - Infliximab was discontinued due to loss of response (66%), infusion reactions (30%) or intolerance (4%)
 - Treatments
 - Induction with 160/80mg ADA followed by 40 mg every other week
 - Short-term clinical response was evaluated at week 4 (defined as complete in case of absence of diarrhea and blood, and partial in case of marked clinical improvement but persisting rectal blood loss)
 - Durable complete response was defined as lasting control of disease activity in patients necessitating dose escalation
 - Adalimumab serum levels were analyzed before and after this intervention

Results

- 68% of patients had short-term CR (46% partial, 22% complete)
- Within 6 weeks of initiation, 20 patients (13 without short-term CR and 7 with partial CR) required dose escalation to weekly ADA 40 mg
 - Resulted in complete CR and dose de-escalation in 65%
- Eighteen patients required dose escalation because of loss of response
 - 72% regained complete response
- Successful dose escalation was associated with an increase in median adalimumab serum levels from 4.75 to 7.95 $\mu\text{g/mL}$ ($P=.023$)
- After a median follow-up of 23 months, 26 patients (52%) achieved a durable CR to ADA, while 20% needed colectomy
- Short-term CR and response to dose escalation were associated with colectomy-free survival ($P=.030$ and $P<.001$)
- 65% and 73% of patients were able to stop concomitant CS and IMM

Conclusions

- After a median follow-up of 23 months, 52% achieved a durable response to adalimumab
- Dose escalation was necessary in 76% of patients and significantly increased adalimumab serum levels
- Short-term complete response and response to dose escalation were associated with colectomy-free survival
- The high proportion of patients responding to dose escalation suggests that higher adalimumab doses might be required in UC

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Influence of Trough Serum Levels and
Immunogenicity on Long-term Outcome in
Ulcerative Colitis (P0953)***

*Arias MT et al
UEGW 2011*

Methods

- Background
 - Trough level and antibody measurement may help to optimize therapy but data in UC are scarce
- Objective
 - To study the influence of trough level and antibody formation on long-term clinical benefit of infliximab in UC
- Methods
 - Patients receiving induction and maintenance therapy (N=136)
 - Trough levels were measured at weeks 0, 2, 6, 14, 30 and 54 using ELISA
 - Antibodies were measured in samples with undetectable trough levels

Results

- With median follow-up of 63 weeks 56.6% of patients demonstrated sustained clinical benefit
- 66 patients (48.5%) needed dose optimization
- 16.2% of the total cohort needed to stop IFX due to complete loss of response
 - Significantly lower trough levels were seen at all time points in patients who stopped therapy

	Median TL in patients who discontinued (IQR)	Median TL in patients who continued (IQR)	P value
W2	21.8 (9.0-26.7)	24.6 (16-36.2)	0.02
W6	12.1 (6.4-21.2)	18.8 (11.6-25.2)	0.007
W14	5.1 (1.9-7.2)	7.5 (3.9-9.8)	0.04
W30	2.5 (0.3-6.1)	6.0 (2.4-9.1)	0.01
W54	0.3 (0.3-3.6)	4.9 (1.7-8.2)	0.01

Results (Continued)

- Patients who displayed trough levels $<0.30 \mu\text{g/mL}$ at least once during follow up demonstrated significantly shorter time to dose optimization (log-rank $P=.02$) and clinical LOR (log-rank $P=.01$)
- 4 patients (3%) developed undetectable trough levels within 6 weeks following start of IFX, and all discontinued therapy despite dose optimization
- There was a positive correlation between serum albumin levels at baseline and trough levels at all time points ($P=.006$) and an inverse correlation with CRP

Conclusions

- 48% of patients lost response needing dose optimization and 16% needed to stop IFX
- Loss of response with need for discontinuation was associated with lower trough levels
- The presence of undetectable TL early after induction at week 6 predicts loss of response or need for discontinuation with high specificity
- These data are comparable to those observed in CD

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Fecal Lactoferrin as Biomarker for Mucosal
Inflammation to Distinguish Patients With
Ulcerative Colitis From IBS (PO902)***

*Langhorst J et al
UEGW 2011*

Methods

- Objective
 - To investigate fecal lactoferrin, CRP, and the colitis activity index (CAI) to monitor status of inflammation on a mucosal level using 6 histological features in patients with UC and IBS
- Methods
 - 281 endoscopic procedures were performed in 242 patients (175 with UC; 67 with IBS)
 - Fecal specimens were analyzed for fecal lactoferrin (>7 g/mg defined as elevated), serum analyzed for CRP (0.5 mg/dL defined as elevated)
 - CAI calculated for all patients

Results

- Of the 281 histological work ups 121 showed an acute inflammation index ≥ 1 indicating acute inflammation on a mucosal level
- Fecal lactoferrin levels were 2.3 ± 19.4 mcg/mg for no inflammation and 37.9 ± 211.4 mcg/mg for active inflammation
- Mean FLA, CRP and CAI discriminated pts with acute inflammation from those with no signs ($P < .0001$)
- Diagnostic accuracy was 72.6% for FLA, 64% for CRP and 69.7% for the CAI
- FLA showed highest correlation to the acute inflammation index as well as the histological sum score

Conclusions

- Fecal lactoferrin serves as a useful biomarker for monitoring the mucosal status in patients with IBS and gives crucial information about status of mucosal healing in ulcerative colitis

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Serum Cytokine Profile Predicts Outcome in
Ulcerative Colitis Patients: A Prospective
Study (P0909)***

*Peralvarez MR et al
UEGW 2011*

Methods

- Background
 - Several cytokines are overexpressed in serum and colonic mucosa of UC patients
 - The role of these biomarkers over the disease prognosis has not been established
- Objective
 - To identify serum cytokine profiles with prognosis capability in UC patients
- Methods
 - Consecutive UC patients (N=67)
 - Clinical, endoscopic and histological disease activity was assessed using Truelove Witts modified score and Baron and Geboes scale
 - Plasma samples analyzed for IL1 β , IL2, IL6, IL8, IL 10, IL13, IL17, IFN γ and TNF α

Results

- Younger patients with higher IL-1 β concentration and lower TNF α serum levels relapsed significantly more frequently
- Patients with moderate to severe endoscopic disease accompanied by high IL-8 and IL-10 and low concentration of TNF- α had an increased risk of dependence or resistance to steroids
- Previous steroid resistance, more severe histologic lesions and higher levels of IL-1 β with lower concentration of IL-13, predicted the need for biologics during follow up

Conclusions

- The combination of clinical disease features and serum cytokine profile can identify UC patients at risk for poor outcomes

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Clinical and Genetic Markers of Disease
Prognosis in Ulcerative Colitis (P0915)***

*Waterman M et al
UEGW 2011*

Methods

- Background
 - >50% of patients with UC have poorly controlled disease and 20% will require colectomy
 - Few data are available on predictors of an aggressive disease course
- Objective
 - To identify clinical and genetic markers that can predict prognosis in UC
- Methods
 - Retrospectively review of records of UC patients with >5 years of follow-up and with DNA available for genotyping
 - DNA was genotyped for 50 known UC-associated SNPs
 - Need for colectomy, hospitalization and pattern of medication usage were utilized to group patients into 3 prognostic groups: mild, moderate, and severe disease

Results

- 601 UC patients were classified into mild (n=78), moderate (n=273) and severe (n=250)
- Disease severity was associated with:
 - Age >40 at diagnosis
 - Greater proximal extension rates on follow-up ($P<.0001$)
 - Shorter time to extension ($P=.03$)
 - Shorter time to prednisone initiation ($P=.0004$)
- Montreal A3 and E3 at diagnosis were associated with severe disease (OR=1.66 and 2.12, respectively)
- Smoking at diagnosis protected against severe disease (OR=0.62 borderline significant $P=.06$)
- A SNP within NOTCH4 was highly-associated with risk for proximal disease extension ($P=.016$, OR=2)

Conclusions

- Age >40 at diagnosis, extensive disease at initial endoscopy and steroid use within 6 months of diagnosis predict a more severe disease course
- Carriage of a SNP within NOTCH4 doubles the risk for proximal extension of disease

XPERT PERSPECTIVES

...from UEGW



Reporting on IBD

Induction of Remission of Mild to Moderately Active Ulcerative Colitis With Budesonide MMX 9 mg: A Multicentre, Randomised, Double-Blind, Placebo-Controlled Study in North America and India (OP093)

*Sandborn W et al
UEGW 2011*

Induction of Remission of Mild to Moderately Active Ulcerative Colitis With Budesonide-MMX 9 mg: A Multicentre, Randomised, Double-Blind, Placebo-Controlled Study in Europe, Russia, Israel, and Australia (OP094)

*Travis S et al
UEGW 2011*

Methods

- Objectives
 - Evaluate induction of remission of mild to moderately active ulcerative colitis with a budesonide formulation targeted to the colon
- Design
 - Two multicenter, randomized, double-blind, placebo controlled trials
 - North America and India (n=509)
 - Europe, Russia, Israel, Australia (N=511)
 - Patients randomized to:
 - Budesonide MMX 9 or 6 mg tablets once daily
 - Placebo
 - In North America/India study, Asacol 2.5 mg/d given in non-powered reference arm
 - In European study, oral budesonide (3 x 3 mg once daily) given in non-powered reference arm

Results

Europe, Russia, Israel, India

mITT (n=410)	Placebo (n=89)	B-MMX 9mg (n=109)	B-MMX 6mg (n=109)	Entocort 9mg (n=103)
UCDAI remission, n (%)	4 (4.5)	19 (17.4)	9 (8.3)	13 (12.6)
Δ vs placebo (%)	–	12.9	3.8	8.1
95% CI	–	4.6–21.3	3.0–10.5	0.4–15.9
p value*	–	0.0047**	0.2876	0.0481†

*Chi-square test for remission vs placebo; Δ = difference between active treatment and placebo; **Statistically significant at p<0.025 (multiple testing); †Exploratory data; the study was not powered for multiple comparisons that included Asacol

North America, India

mITT (n=489)	Placebo (n=121)	B-MMX 9mg (n=123)	B-MMX 6mg (n=121)	Asacol 2.4g (n=124)
UC-DAI remission, n (%)	9 (7.4)	22 (17.9)	16 (13.2)	15 (12.1)
Δ vs placebo, %	–	10.4	5.8	4.7
95% CI	–	2.2–18.7	1.8–13.4	2.7–12.1
p value*	–	0.0143**	0.1393	0.2200†

*Chi-square test for remission vs placebo; Δ = difference between active treatment and placebo; **Statistically significant at p<0.025 (multiple testing); †Exploratory data; the study was not powered for multiple comparisons that included Entocort

Conclusions

- B-MMX 9 mg administered once daily is effective for inducing remission in patients with mild to moderately active UC and has a favorable safety profile

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Biologic Use is Associated With a Major
Reduction in Venous Thromboembolic
Events Compared With Steroid Use in the
Treatment of IBD (OP143)***

*Higgins P et al
UEGW 2011*

Methods

- Background
 - IBD is associated with increased rates of VTE
 - Corticosteroids might have a prothrombotic effect, and thereby independently contribute to VTE risk
- Objective
 - To determine whether use of biologic therapies for treatment of active IBD would have a reduced risk of VTE compared to use of steroids
- Methods
 - Retrospective analysis of adults with diagnoses of CD or UC using large database
 - Patients were included if they had no VTE in the 6 months prior to the index date and insurance coverage in the 6 months prior to and 12 months following index date
- Outcomes
 - Incidence of VTE in the 12 month follow-up period

Results

- 15,100 patients included in the analysis
- 325 VTEs occurred in the study period
- Rate of VTE:
 - Steroid without biologic: 2.3%
 - Biologic without steroid: 0.4%
 - Biologic and steroid: 2.5%
- Compared to reference treatment (steroids without biologics), patients on biologics had an odds ratio of 0.21 (95% CI, 0.05–0.84) for VTE
- Subjects on both steroids and biologics had an odds ratio (OR) of 0.99 for VTE
- Significant covariates included:
 - Age (OR, 1.02 per year of age)
 - Recent IBD surgery (OR, 3.62)
 - Recent IBD hospitalization (OR, 1.51)
 - Cancer (OR, 2.33)
 - Indeterminate colitis (OR, 1.61)

Conclusions

- Compared with biologic therapy, corticosteroid use was associated with nearly a 5-fold increase in VTE risk, suggesting that use of corticosteroids contributes to VTE risk
- Combination therapy with corticosteroids and biologics is associated with the same VTE risk as corticosteroids alone, suggesting that corticosteroids may truly increase VTE risk

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***High-Sensitivity CRP at Diagnosis and
During Follow-up in Patients With Crohn's
Disease: Is it a Marker for Patient
Classification? (PO400)***

*Kiss LS et al
UEGW 2011*

Methods

- Background
 - C reactive protein (CRP) is a traditional non-specific marker of inflammation and CD is associated with a strong CRP response
 - No clear cut-off values exist
- Objective
 - To investigate whether a classification based on the hsCRP value at diagnosis is useful for prediction of disease phenotype and relapse rate
- Methods
 - 260 consecutive CD patients with complete clinical follow-up were included
 - Medical records including disease phenotype according to Montreal classification, extraintestinal manifestations, smoking habits, medical therapy and surgical events were analyzed retrospectively
 - Hs-CRP and clinical activity according Harvey-Bradshaw index was followed-up consecutively between 1 January, 2008 and 1 June, 2010

Results

- 32.3% of CD patients had normal hs-CRP at diagnosis.
- Elevated hs-CRP at diagnosis was associated with:
 - Disease location ($P=.002$)
 - Non-inflammatory disease behavior ($P=.058$)
 - Need for later azathioprine therapy ($P<.001$)
 - Need for later biologic therapy ($P=.024$)
- The accuracy of hs-CRP for identifying patients with active disease later during the course of the disease was good (AUC: 0.82, cut-off:10.7 mg/L)
 - AUC was better in patients with a elevated hs-CRP at diagnosis compared with non-elevated CRP at diagnosis
- hs-CRP was a significant predictor of 3- and 12-month clinical relapses in patients with an elevated hs-CRP at diagnosis
- Perianal involvement was associated with the 12-month relapse frequency

Conclusions

- Classification based on hs-CRP value at diagnosis is useful for identifying complicated disease phenotype, active disease and risk of relapses during follow-up

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Induction of Remission With Adalimumab in
Patients With Moderate Crohn's Disease:
Subanalysis of CLASSIC I (PO438)***

*Sandborn WJ et al
UEGW 2011*

Methods

- Background
 - CLASSIC I showed that patients with baseline CRP ≥ 10 mg/L achieved higher rates of clinical remission (CDAI score < 150) at week 4 with adalimumab
- Objective
 - Evaluate efficacy of adalimumab in patients with moderate CD and determine whether elevated CRP in this subgroup was associated with improved efficacy
- Methods
 - Post hoc analysis of patients enrolled in CLASSIC I

Results

- The highest efficacy was seen in patients with moderate CD and elevated baseline CRP

	Placebo	ADA 80/40	ADA 160/80
All Patients	12% (9/74)	24% (18/75)	36% (27/76)**
CRP \geq 10mg/L, % (n/N)	4% (1/28)	27% (9/33)*	43% (12/28)**
CDAI \leq 300, % (n/N)	17% (8/46)	29% (13/45)	46% (19/41)**
CRP \geq 10mg/L, CDAI \leq 300, % (n/N)	7% (1/15)	26% (6/23)	57% (8/14)**
CDAI >300, % (n/N)	4% (1/28)	17% (5/30)	23% (8/35)*
CRP \geq 10mg/L, CDAI >300, % (n/N)	0% (0/13)	30% (3/10)	29% (4/14)

* $P < .05$ versus placebo

** $P < .005$ versus placebo

Conclusions

- In CLASSIC I, ADA 160mg/80mg was effective at inducing remission in all subgroups studied, including the subgroup of patients with moderate CD
 - In this subgroup, high baseline CRP was associated with substantially higher remission rates
- Suggests that patients with moderate disease can be treated effectively with adalimumab, especially when there is evidence of inflammation

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***High Rates of Nonadherence for Anti-TNF
Treatment in Crohn's Disease: Results of a
Systematic Review (P0924)***

*Fidder H et al
UEGW 2011*

Methods

- Background
 - Data on non-adherence in CD is scant and published studies show a great variation in non-adherence rates
- Objective
 - To investigate non-adherence rates in anti-TNF treatment in CD by systematic review of published medical literature
- Methods
 - Structured search and analysis of English-language publications involving anti-TNF treatment in adults with CD that provided information on adherence
 - Sample size-weighted pooled proportions of patients nonadherent to therapy were assessed
 - Rates of nonadherence were compared between adalimumab and infliximab

Results

- Out of 75 identified titles, 3 studies were selected that met prespecified criteria
 - Two studies (N=845) of infliximab
 - One study (N=108) of adalimumab
- The calculated overall sample size-weighted pooled proportion for non-adherence was 30% (95% CI 27%-33%)
- The nonadherence rate for adalimumab (45%) was higher compared to infliximab (28%), with a relative risk of 1.61 (95% CI 1.27-2.03)

Conclusions

- One-third of CD patients treated with anti-TNF treatment were non-adherent
- Although different routes and schedules of administration between infliximab and adalimumab may impede direct comparison, higher nonadherence rates were seen with adalimumab

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***A Multicenter, Randomized, Double-Blind, Placebo-
Controlled Phase 2B Study of Ustekinumab, A
Human Monoclonal Antibody to IL-12/23 p40, in
Patients With Moderately to Severely Active Crohn's
Disease: Results Through Week 36 From the
CERTIFI Trial***

*Feagan B et al
UEGW 2011*

Methods

- Objective
 - To evaluate ustekinumab in patients with moderate to severe CD failing anti-TNFs
- Methods
 - Patients with CDAI score 220-450 were randomized to:
 - IV PBO
 - Ustekinumab 1, 3, or 6 mg/kg at week 0
 - At week 8, week 6 responders and nonresponders who received IV UST were separately re-randomized to subcutaneous 90 mg ustekinumab or placebo maintenance at weeks 8 and 16
 - During maintenance, steroid tapering was mandated and assessments were at week 22
 - Patients were followed until week 36
 - Primary endpoint was clinical response at week 6

Results

	Placebo	UST 1mg/kg	UST 3mg/kg	UST 6mg/kg	Combined UST
N	132	131	132	131	394
Clinical response^a					
Wk6	23.5%	36.6%*	34.1%	39.7%*	36.8%*
Wk8	17.4%	32.1%*	31.8%*	43.5%*	35.8%*
Clinical remission^b					
Wk6	10.6%	16.0%	15.9%	12.2%	14.7%
Wk8	10.6%	17.6%	18.2%	18.3%	18.0%*

^a≥100pt reduction in CDAI; ^bCDAI<150; *P<.05 vs.placebo by CMH

Results (Continued)

- At week 6, 39.7% in the 6 mg/kg group were in clinical response vs 23.5% of placebo patients ($P=.005$)
- All 3 doses were associated with significant changes vs placebo in CRP, IBDQ, mean CDAI, 70 point drop, and lactoferrin/calprotectin
- In maintenance therapy, among patients in clinical response to ustekinumab at week 6, 41.7% on ustekinumab were in remission at week 22 vs 27.4% of placebo patients ($P=.029$)
- 69.4% vs 42.5% remained in clinical response ($p<.001$) and 30.6% vs 17.8% were in steroid-free remission at week 22 ($P=.048$)
- Adverse events
 - Proportions of AEs and infections were similar in the ustekinumab and placebo groups during both induction and maintenance
 - No major adverse CV events, deaths, serious opportunistic infections, or TB

Conclusions

- In moderate to severe CD patients previously failing anti-TNFs, ustekinumab induced and maintained clinical response

**XPERT
PERSPECTIVES**

...from UEGW

Reporting on **IBD**



***Food Elimination Diets Based on IgG4
Antibodies in Crohn's Disease; A Double-
Blinded Randomized Controlled Trial (P1454)***

*Gunasekera AV et al
UEGW 2011*

Methods

- Background
 - Elemental diets are as effective as corticosteroids in inducing remission in CD
 - Recent data suggest a diet based on IgG4 titers can improve symptoms
- Objective
 - To evaluate the effect of exclusion diets determined by IgG4 titres on disease activity
- Methods
 - 76 CD patients recruited and randomized to sham diet (n=37) or true diet (n=39)
 - IgG4 titers to 18 common food types determined by ELISA
 - Disease activity assessed with CDAI, Harvey-Bradshaw Index, CRP, and fecal calprotectin

Results

	True Pre-Diet	True Post Diet	Sham Pre-Diet	Sham Post Diet	<i>P</i>
CDAI	181 (123; 308)	77 (96.0; 413)	183 (113.75; 272)	159 (128.25; 427)	.0035
HBI	7 (5.0; 14.0)	3 (4.0; 15.0)	7 (4.0; 13.0)	6 (5; 17)	.0093
CRP	4 (7.475; 23.8)	4 (6.4; 33.3)	5.8 (7.125; 75.4)	4 (6.05; 104.4)	.1944
Calprotectin	388 (397.5; 906)	240 (355; 982)	226 (357.5; 890)	180 (363.5; 1122)	.1289
SIBDQ	51 (14.5; 38)	59 (11.75; 39)	42 (16.25; 43.0)	49 (12.25; 39)	.2915

All values presented as median (IQR;Range)

Conclusions

- This trial supports the value of exclusion diets based on IgG4 titers in CD
- Food elimination based on IgG4 antibody titers may be effective in reducing symptoms
- The mechanism by which this occurs could be through a reduction in inflammatory activity