Introduction The role of diet as a therapy for Inflammatory Bowel Disease (IBD) is well established and has improved treatment and prognosis for patients. However, little is understood about how IBD impacts on food-related quality of life. A qualitative study indicated a wide range of food related issues across a broad spectrum of IBD experiences which include, amongst others; identifying and avoiding trigger foods, uncertainty about how IBD impacts on food-related quality of life. A qualitative analysis grouped mice by treatment. 285 genes were differentially expressed (>2 collapsing expression plus p < 0.05), including a striking down-regulation of mucosal humoral response genes, (for example, probe sets for IgA heavy chain (−20.6 fold), IgG chain var1 (−19.0 fold), IgA chain CR2 (−4.8 fold)). This was not explained by a reduction in neutrophil infiltrate was seen in the LL-IL-27 group (p = 0.004), along with a significant decrease in the neutrophil chemoattractant CXCL2 (p < 0.001). LPS induced CXCL2 gene and protein expression in macrophages was not inhibited by recombinant IL-27 in vitro, suggesting an indirect mechanism in vivo. Peri-ulceration distal colonic mucosa was isolated by laser capture microdissection and RNA applied to mouse Genome 430 2.0 Affymetrix microarray.

Conclusion Intra-luminal IL-27 represents a potential therapy for human inflammatory bowel disease and acute colitis of differing aetiologies.

Disclosure of Interest None Declared.

Methods 2 mg 2,4,6-trinitrobenzene sulfonic acid (TNBS) was delivered intra-rec tally in 45% ethanol or 45% ethanol alone into 6–8 week old male SJL mice. L. lactis control (LLC) or LL-IL-27 was delivered by oral gavage on 4 occasions, 24 h apart, commencing at colitis induction. Therapeutic effect was assessed clinically and histologically. Potential mechanisms of action were investigated.

Results TNBS induced an acute severe colitis. IL-IL-27 led to a significant reduction in disease activity index compared to LLC (4.9 vs. 8.7/12 on day 2 (p = 0.001); 3.6 vs. 7.7/12 on day 3 (p = 0.001), improved macroscopic colitis score (p < 0.05), and reduction in serum CRP (p = 0.003, day 2). Histological colitis score was reduced (p = 0.035) with significant improvement in mucosal ulceration (p = 0.008). TNBS increased expression of distal colon Il6, Il1β, Tnf, and Il10, assessed by RT-PCR, with no differential effect seen with LL-IL-27. However, LL-IL-27 led to a significant reduction in IL-6 (p = 0.002), IL-1β (p = 0.001) and TNF (p = 0.014) protein assessed by ELISA. A significant reduction in colonic mucosal myeloperoxidase+ neutrophil infiltrate was seen in the LL-IL-27 group (p = 0.004), along with a significant decrease in the neutrophil chemoattractant CXCL2 (p < 0.001). LPS induced CXCL2 gene and protein expression in macrophages was not inhibited by recombinant IL-27 in vitro, suggesting an indirect mechanism in vivo. Peri-ulceration distal colonic mucosa was isolated by laser capture microdissection and RNA applied to mouse Genome 430 2.0 Affymetrix microarray.

Principal component analysis grouped mice by treatment. 285 genes were differentially expressed (>2/1.5 fold change in expression plus p < 0.05) in the LL-IL27 group, including a striking down-regulation of mucosal humoral response genes, (for example, probe sets for IgA heavy chain (−20.6 fold), IgG chain var1 (−19.0 fold), IgA chain CR2 (−4.8 fold)). This was not explained by a reduction in CD45R/B220+ B cell infiltrate (p = 0.02). Up-regulated genes include those involved with anti-microbial defense (RegIIIb, Clec7A, ligg1) and innate immune response (cxcl10, cxcl9).

Conclusion Intra-luminal IL-27 represents a potential therapy for human inflammatory bowel disease and acute colitis of differing aetiologies.

Disclosure of Interest None Declared, M. Hanson: None Declared, B. Gold: None Declared, Y. Golubeva: None Declared, M. Anver: None Declared, X. Wu: None Declared, D. Sun: None Declared, L. Steidler Employee of: ActoGenix, S. Durum: None Declared.

PTU-102 DEVELOPMENT OF A FOOD RELATED QUALITY OF LIFE QUESTIONNAIRE FOR PEOPLE WITH IBD

L Hughes1, J O Lindsay2, MC Lomer1, S Ayis1, L King1, M Morgan, K Whelan2, Kings College London, UK; 2Gastroenterology, Bart’s Health NHS Trust, London, UK; 3Nutrition and Dietetics, Guy’s and St Thomas’ Foundation NHS Trust, London, UK.

Introduction The role of diet as a therapy for Inflammatory Bowel Disease (IBD) is well established and has improved treatment and prognosis for patients. However, little is understood about how IBD impacts on food-related quality of life. A qualitative study indicated a wide range of food related issues across a broad spectrum of IBD experiences which include, amongst others; identifying and avoiding trigger foods, uncertainty about how IBD impacts on food-related quality of life. A qualitative analysis grouped mice by treatment. 285 genes were differentially expressed (>2 collapsing expression plus p < 0.05), including a striking down-regulation of mucosal humoral response genes, (for example, probe sets for IgA heavy chain (−20.6 fold), IgG chain var1 (−19.0 fold), IgA chain CR2 (−4.8 fold)). This was not explained by a reduction in CD45R/B220+ B cell infiltrate (p = 0.02). Up-regulated genes include those involved with anti-microbial defense (RegIIIb, Clec7A, ligg1) and innate immune response (cxcl10, cxcl9).

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PTU-103 INTRA-LUMINAL INTERLEUKIN (IL)-27 IS A POTENTIAL THERAPEUTIC STRATEGY FOR INFLAMMATORY BOWEL DISEASE


Introduction The thiopurines (azathioprine (AZA) and mercaptopurine (6MP)) are established first line therapies for inflammatory bowel disease (IBD). However, when these agents are used at their target dose side effects are common, gastrointestinal intolerance (10–20%) and hepatotoxicity (>10%). These side effects can often be bypassed by using low dose AZA and

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Disclosure of Interest None Declared.
PTU-103 Intra-luminal Interleukin (Il)-27 Is A Potential Future Therapeutic For Inflammatory Bowel Disease

MH McLean, ML Hanson, B Gold, Y Golubeva, MR Anver, X Wu, D Sun, L Steidler and SK Durum

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