role than previously thought. We have now investigated whether IKKα represents a potential therapeutic target for IBD using murine epithelial intestinal organoids.

Methods Intestinal crypts were harvested from C57BL/6J mice (n=3) and cultured into enteroids in 3D using a Matrigel matrix. Enteroids were either untreated or administered 0.6 μM of IKKα inhibitor SU1433 on day 3 after passage and stimulated with 30 ng/ml TNF on day 4. Enteroid morphological changes were assessed daily using the Enteroid Circularity Score. Immunohistochemistry for active caspase-3 and Ki-67 was performed to assess apoptosis and cell proliferation. Enteroids were harvested at 3, 6, 24, and 48 hours after stimulation and RT-qPCR was performed to determine the expression profiles of selected inflammation-related and non-canonical NF-κB related target genes.

Results Enteroids pre-treated with SU1433 and then stimulated with TNF were protected against enteroid rounding compared to TNF treatment alone. There was also a marked decrease in active caspase-3 positive apoptotic cells 48 hours following TNF in the SU1433 pre-treated group compared to the TNF only group. At the 3, 6, 24 and 48 hour time points NF-κB2, TNF, CXCL9 and ICAM-1 expressions were significantly increased compared to TNF-naïve groups, however there was no significant difference between the SU1433+TNF and TNF only treatment groups.

Conclusions TNF induced enteroid rounding and promoted the expressions of several inflammation related genes in the NF-κB signalling pathways. Pharmacological inhibition of IKKα prevented TNF-induced enteroid rounding. This was associated with a significant decrease in apoptosis on histology. Together, our findings suggest that IKKα may be a potential therapeutic target for the prevention of IBD relapse.

P162 COMPARATIVE EFFECTIVENESS OF VEDOLIZUMAB AND USTEKINUMAB IN ANTI-TNF REFRACTORY CROHN'S DISEASE: MULTI-CENTRE RETROSPECTIVE COHORT STUDY

[1]Tristan Townsend*, [2]Violeta Razanskaite, [1]Stephanie Michail, [1]James Morgan, [1]Michael Davies, [1]Daniel Storey, [3]Christopher Watters, [3]Douglas Penman, [4]Mira Swaminathan, [4]Ian Reilly, [3]Paul Flanagan, [1]Sreedhar Subramanian. *[1]Royal Liverpool University Hospital, Liverpool, UK; [2]Aintree University Hospital, Liverpool, UK; [3]Arrowe Park Hospital, Upton, UK; [4]Countess of Chester Hospital, Chester, UK*

10.1136/gutjnl-2020-bsgcampus.237

Introduction Anti-tumour necrosis factor (TNF) agents are effective in Crohn's disease (CD), but up to 30% of patients fail to respond or develop intolerance and require alternative biological therapy. Both vedolizumab and ustekinumab are licensed to treat anti-TNF refractory CD patients. Clinical trials of vedolizumab and ustekinumab in anti-TNF refractory patients seem to suggest comparable efficacy, but no real-life data exist to facilitate decision-making. We conducted a multicentre retrospective cohort study to assess the comparative effectiveness of vedolizumab and ustekinumab in treating anti-TNF refractory CD.

Methods Anti-TNF exposed CD patients then treated with vedolizumab or ustekinumab were included. Disease activity was monitored serially by calculation of Harvey-Bradshaw index (HBI) for up to 12 months. Faecal calprotectin (FC) at baseline and subsequent visits were recorded if available. Clinical response was defined as decrease in HBI ≥3 and remission by HBI <5. We compared the effectiveness of ustekinumab and vedolizumab on an intention to treat basis.

Abstract P162 Table 1

		Vedolizumab n = 85	Ustekinumab n = 45	Fisher's Exact Test (P value)
Response	2 months	35%	49%	0.138
	4 months	39%	56%	0.095
	6 months	39%	49%	0.351
	12 months	44%	53%	0.356
Remission	2 months	16%	36%	**0.017***
	4 months	21%	40%	**0.038***
	6 months	39%	49%	0.351
	12 months	44%	53%	0.356
Steroid-Free Remission	2 months	12%	29%	**0.028***
	4 months	20%	38%	**0.036***
	6 months	15%	38%	**0.008***
	12 months	25%	42%	**0.047***

Results After exclusion of patients without evaluable data, 85 patients commencing vedolizumab and 45 commencing ustekinumab therapy were included. Baseline characteristics (age, disease location, behaviour, smoking status and baseline FC) were comparable in both cohorts. 29 (34%) of patients receiving vedolizumab and 6 (13%) receiving ustekinumab stopped treatment within 12 months due to adverse events or lack of response. Clinical response rates were similar between treatments. Clinical remission rates, however, were greater at 2 and 4 months in patients treated with ustekinumab. Steroid-free remission rates were greater in patients treated with ustekinumab at all time points (see table 1 - Response and remission rates for vedolizumab and ustekinumab).

Significance set at p = 0.05. *indicates statistical significance reached

Conclusions Vedolizumab and ustekinumab effectiveness was broadly comparable to that seen in their landmark clinical trials. A higher proportion of patients receiving vedolizumab needed to change treatment within 12 months. Higher rates of steroid-free remission were seen in patients treated with ustekinumab at all time points.

P163 EMERGENCE/EXACERBATION OF INFLAMMATORY BOWEL DISEASE IN PATIENTS RECEIVING SECUKINUMAB FOR ANKYLOSING SPONDYLITIS -CASE SERIES

Qamar Tufail, Shivanee Nakum*, Sudarshan Kadri, Patricia Hooper, Veena Patel, Rebecca Harrison. *Leicester Royal Infrimary, Leicester, UK*

10.1136/gutjnl-2020-bsgcampus.238

Secukinumab is an IgG monoclonal antibody against interleukin-17A and is licenced for the treatment of ankylosing spondylitis (AS), psoriatic arthritis and plaque psoriasis. IL-17 is one of the pro-inflammatory cytokines involved in the pathogenesis of above inflammatory conditions and blocking it has proved beneficial in their management.

National guidance advises for Secukinumab to be used with caution due to a risk of exacerbation or development of new onset IBD. However, safety results of