Introduction of golimumab were 79% and 65%, respectively. Through most recent follow-up 59% remained on treatment. Endoscopic improvement and mucosal healing at 1 year were achieved in 73% and 47% of patients, respectively.

**Conclusions:** This study demonstrates the efficacy of golimumab in CD patients who were previously refractory to at least 2 anti-TNF agents. An initial response is successfully maintained in the majority of patients for up to 3 years. Future studies should be performed in CD to formally assess the efficacy of golimumab in a randomized controlled trial and to establish the optimal dosing regimen.

**P616**

**Natural history and phenotype of inflammatory bowel disease with co-existent celiac disease**

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**Background:** Inflammatory bowel disease (IBD) and celiac disease (CeD) have overlapping clinical features and may share some genetic risks. Under diagnosis and treatment of a concurrent disease can lead to persistence of symptoms and increase morbidity. We aim to characterize the natural history of patients with IBD and coexistent CeD.

**Methods:** A retrospective case study was performed on all adult patients with IBD and CeD at our institution. A total of 447 patients were associated with the ICD-9 or ICD-10 codes for CeD and Crohn's disease (CD), or ulcerative colitis (UC). Of these, 107 patients met the diagnostic criteria for both IBD and CeD. Patient demographics, IBD location, phenotype, medication history, disease activity, CeD diagnostic methodology, and the need for hospitalizations, surgeries, and rescue corticosteroids were noted.

**Results:** A total of 107 patients (52.3% male) had IBD with coexistent CeD (Table 1). The majority of patients (n=69, 65.1%) were diagnosed first with IBD then CeD after a median 7.4 years (interquartile range [IQR] 1.5–12.8 years), while 28.3% (n=30) were diagnosed first with CeD then IBD after a median of 2.9 years (IQR 0.5–6.6 years). A small proportion (n=7, 6.6%) were concurrently diagnosed with IBD and CeD. Of these, 107 patients met the diagnostic criteria for both IBD and CeD. Patient demographics, IBD location, phenotype, medication history, disease activity, CeD diagnostic methodology, and the need for hospitalizations, surgeries, and rescue corticosteroids were noted.

**Footnote:** a: missing data 1 case; b: upper GI only 1 case; c: extent unknown 1 case

**P617**

**Extraintestinal autoimmune phenomena during treatment with vedolizumab**

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**Background:** Extraintestinal side effects in patients receiving Vedolizumab, especially skin and joint reactions, have been described. Underlying mechanisms are unclear.

**Methods:** Four patients with extraintestinal symptoms under therapy with Vedolizumab were identified and clinical characteristics were analyzed. In one patient with pulmonary symptoms, peripheral blood mononuclear cells (PBMC) were isolated, stained with anti-CD45, anti-CD3, anti-CD29 and anti-49d and assessed by flow cytometry.
Results: All patients developed extraintestinal symptoms between the first and sixth dose, and the three patients receiving more than three infusions all responded well to the therapy regarding to their intestinal symptoms (decline in Harvey-Bradshaw-Index or modified Mayo-Score). One female patient with ulcerative colitis was diagnosed with thyreoiditis de Quervain, a granulomatous inflammation of the thyroid, based on pathognomic ultrasound features after six doses. The second female patient developed vasculitis of the eye after receiving one dose of Vedolizumab for Crohn’s disease (CD). Two male patients, both with Crohn’s colitis, presented predominantly with pulmonary symptoms: One suffered from rapidly progressive acute respiratory distress syndrome requiring mechanical ventilation after receiving the fourth infusion; the other presented with dyspnoea and dry cough after the third dose. In both cases, CT-scan showed bilateral infiltrates and hilar lymphadenopathy. Extensive work-up identified no infectious or other specific cause (including repeat cultures and PCR for Mycobacterium tuberculosis complex DNA, Quantiферон assay, urine histoplasmosis antigen, HIV testing, negative autoantibodies; and soluble IL-2 receptor, ACE and CD4/CD8-ratio within normal range). In the latter case, lung tissue obtained during thoracoscopic wedge resection showed multiple characteristic non-caseating epithelioid-granulomas, highly suspicious for pleural and pulmonary manifestation of CD. Analysis of integrin-expression on PBMCs demonstrated a distinct CD29+ (i.e. integrin \( \beta_1+ \)) population, an integrin necessary for lymphocyte homing into the lung. After treatment with prednisolone, both the \( \beta_1+ \) cells as well as pulmonary infiltrates vanished, along with complete resolution of clinical symptoms. Likewise, the other patients fully recovered after cessation of Vedolizumab plus administration of steroids, if needed.

Conclusions: Shifts in integrin-expression triggered by Vedolizumab and consequently altered migrational behaviour of immune cells into other organs than the gut might explain the excellent intestinal response to the drug accompanied by extraintestinal manifestation of the disease in our patients.