also lead to an early diagnosis and proper treatment of chronic and debilitating inflammatory arthritis.

**P184**

Mucosal healing does not correspond to histological healing in ulcerative colitis

L. Laterza1*, I. Scoleri1, S. Bibbò1, E. Gaetani1, G. Bruno1, L. Larosa2, A. Poscia1, A. Amato4, L.M. Minordi2, L. Bonomo2, G. Cammarota1, A. Gasbarrini1, V. Gerardi1, 1Gastroenterology Division, Catholic University of the Sacred Heart, Rome, Italy, 2Radiology Department, Catholic University of the Sacred Heart, Rome, Italy, 3Institute of Hygiene, Catholic University of the Sacred Heart, Rome, Italy, 4Institute of Anesthesiology, Catholic University of the Sacred Heart, Rome, Italy

**Background:** Ulcerative colitis (UC) is a chronic inflammatory disease limited to the large bowel mucosa, thus mucosal healing (MH) assessed by endoscopy could be a potential target in the treatment of these patients. In fact, MH demonstrated to modify the natural history of the disease, reducing the need for surgery and the risk of colorectal cancer. MH lowers the risk of disease reactivation, but some patients relapse in spite of the presence of MH. It is reasonable to think that the microscopic disease activity beyond MH could explain these cases. Our aim is to assess how many patients with MH have a microscopic disease activity and what kind of lesions are the most frequent in these cases.

**Methods:** We used Mayo endoscopic score to assess endoscopic activity. 28 patients with MH defined as Mayo score=0 were enrolled. For each patient microscopic disease activity has been evaluated by an expert pathologist based on the presence of acute or chronic inflammatory cell infiltrate, basal plasmacytosis, basal lymphoid aggregates, stromal changes, lamina propria eosinophils, crypt branching, crypt distortion, crypt atrophy/depletion, cryptitis, crypt abscesses, surface irregularity, mucin depletion, erosions and Paneth cell metaplasia.

**Results:** No patients showed absence of histological lesions, whereas in all patients a chronic inflammatory infiltrate could be demonstrated. 42.86% of patients showed basal lymphoid aggregates, 25% mucin depletion, 21.43% basal plasmacytosis and 17.86% lamina propria eosinophils. 21.43% of patients had cryptitis, 14.29% crypt distortion and Paneth cell metaplasia. Erosions and crypt atrophy/depletion were present in 10.71% and 7.14% of cases, respectively. Only 3.57% of patients had crypt abscesses. No patients showed surface irregularity, stromal changes or crypt branching.

**Conclusions:** A microscopic disease activity persists in all patients with MH, thus the endoscopic remission does not correlate with histological healing. Further studies are required to assess if persistent histological lesions could predict clinical relapse.

**P185**

Mucin 16 (MUC16) and mucin 20 (MUC20) over-expression in colonic mucosa is associated with histological remission in patients with ulcerative colitis

J. Yamamoto-Furusio1*, J. Ascaño-Gutiérrez1, J. Furuzawa-Carballeda1, G. Fonseca-Camarillo1, 1IBD Clinic, Instituto Nacional de Ciencias Médicas y Nutrición, Gastroenterology, Mexico, Mexico, 2Instituto Nacional de Ciencias Médicas y Nutrición, Immunology, Mexico, Mexico

**Background:** Patients with Ulcerative Colitis (UC) present a defect in the secretion and maintenance of the mucosal barrier as a result of inadequate expression of mucin genes (MUC) which forms part of the particular chronic inflammatory process of this disease. The aim of the present study was to determine the gene and protein expression of MUC16 and MUC20 in colonic tissue from patients with UC and controls.

**Methods:** We included a total of 80 patients with confirmed diagnosis of UC and were divided into three groups: 1) 40 active UC; 2) 40 remission UC and 3) 40 controls without endoscopic evidence of any type of colitis (infectious, post radiation, ischemic) or neoplasia. The relative quantification of the gene expression was performed by real time PCR (RT-PCR) for MUC16 and MUC20 genes and the gen GAPDH was used as reference. The protein expression was detected by immunohistochemistry with specific antibodies for MUC16 and MUC20. Statistical analysis was done using SPSS v17 program. A P value <0.05 was considered as significant.

**Results:** A total of 80 patients with UC (39 men and 41 women with a mean age of 42 years) and 40 controls (11 men and 29 women with a mean age of 49 years) were evaluated. The MUC16 gene expression was significantly increased in the UC remission group compared to the control group (P=0.03). No association of MUC16 gene expression with clinical features was found. The MUC20 gene expression was found significantly decreased in patients with active UC compared to both in remission (P=0.0001) and controls (P=0.0001). The MUC20 gene expression was increased and it was associated with the presence of histological remission in patients with UC (P=0.003, OR=0.37). The immunohistochemical analysis confirmed an important decreased production of MUC16 and MUC20 in patients with active UC compared to the control group.

**Conclusions:** The expression of MUC16 and MUC20 mucins was increased in patients with remission UC, suggesting that this over-expression in the gene and protein expression are associated with histological remission in patients with UC.