healing of intestinal mucosa, as well as normalization of serum and fecal biomarkers active inflammation.

Objective: To study the effect of mesenchymal stromal cells (MSCs) of bone marrow to achieve biological remission in patients with ulcerative colitis.

Methods: 68 patients with UC were divided into two groups. The first group of patients (n=36) received standard anti-inflammatory therapy with 5-aminosalicylic acid (5-ASA) and glucocorticosteroids (GCS) + MSCs. Age - 19 to 58 years old (ME-29). The second group of patients (n=32) received the standard anti-inflammatory therapy with 5-ASA and corticosteroids. Age of this group 20 to 62 years (ME-28). Immunobiological treatment efficacy were assessed by the level of CRP and fecal calprotectin (FCP). Histopathology evaluation was performed on the index Geboes. Evaluate the effectiveness of therapy was performed at 2, 6 and 12 months. Baseline CRP in acute disease in the 1-st group was 28,6±2,4 mg/ml, in the 2-nd - 28,0±3,0 mg/l (p=0.363). Baseline FCP in the 1-st group was 730±23,4 mcg/g, in the 2-nd - 810±30,1 mcg/g (p=0.086). Index Geboes in the 1-st group was 4,2±0,2 points in the 2-nd - 4,1±0,3 points (p=0.107).

Results: After 2 months, the level of CRP in patients in group 1 was 10,6±1,1 mg/ml, in the 2-nd - 11,0±1,1 mg/l (p=0.139). The level of the FCP in patients in the 1st group was 110±12,0 mcg/g, in the 2-nd - 120±12,0 mcg/g (p=0.001). Index Geboes in 1-st group was 0,9±0,1 points, in the 2-nd - 1,1±0,1 points (p=0.001).

After 6 months, the level of CRP in patients in 1-st group was 6,5±0,6 mg/ml, in the 2-nd - 8,9±0,1 mg/l (p<0.001). The level of the FCP in patients of 1-st group was 80±5,0 mcg/g, in the 2-nd - 95±0,5 mcg/g (p<0.001). Index Geboes in 1-st group was 0,9±0,1 points, in the 2-nd - 1,0±0,1 points (p=0.001).

After 12 months, the level of CRP in patients in 1-st group was 8,6±1,2 mg/ml, in the 2-nd - 9,4±1,0 mg/l (p=0.004). The level of the FCP in patients of 1-st group was 75±5 mcg/g, in the 2-nd - 80±5 mcg/g (p<0.001). Index Geboes in 1-st group was 0,6±0,1 points, in the 2-nd - 1,0±0,1 points (p<0.001).

Conclusions: Inclusion of MSCs in a comprehensive anti-inflammatory therapy UC contributes to a deeper immunobiological and histological remission UC.

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Therapeutic effects of mouse bone marrow-derived clonal mesenchymal stem cells in a mouse model of inflammatory bowel disease

K.B. Hahn*
CHA University, Gastroenterology, Seongnam, Korea, Republic of

Background: Mouse bone marrow-derived clonal mesenchymal stem cells (mcMSCs), originated from a single cell by a subfractionation culturing method, are recognized as a new paradigm for cell-based therapy.

Methods: Dextran sulfate sodium (DSS)-induced colitis was induced in C57BL/6 male mice by administrating 2.5 % DSS in a drinking water for 6 days. 4×105 cells mcMSCs were injected through tail vein on days 1, 3 and 5, respectively.

Results: mcMSCs significantly reduced the DAI score, including weight loss, stool consistency, and intestinal bleeding, and significantly increased survival rates (p<0.01). The pathological scores were significantly improved with mcMSC (p<0.0001), especially mucosal regeneration accompanied with lesser apoptosis were significant beneficiary actions imposed by mcMSCs (p<0.001). The levels of inflammatory cytokines, including TNF-α, IFN-γ, IL-1β, IL-6, and IL-17 accompanied with NF-κB repression, were all significantly decreased in mcMSC treated group compared to the control group (p<0.01), and macrophage and neutrophil influx were significantly reduced (p<0.05).

Conclusions: mcMSCs showed significant therapeutic effects in experimental colitis through anti-inflammatory and restorative activities, are applicable as a potential source of cell-based therapy in IBD.

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Chemoprevention by mesalamine for colorectal cancer in UC-patients: a meta-analysis

F. van Geest*, S. Koene, T. Kalisvaart, D. Dieleman, D. van Valkeren, M. Peppelenbosch
Erasmus MC, Gastroenterology, Rotterdam, Netherlands

Background: Mesalamine, a 5-ASA preparation, is used in the treatment of mild ulcerative colitis (UC). It is known to have an anti-inflammatory effect. Multiple studies ascribed chemopreventive properties to this drug throughout the years. This meta-analysis aims to determine the chemopreventive effect of mesalamine (and other 5-ASA preparations) on colorectal neoplasia in patients with UC.

Methods: To determine whether the risk of developing colorectal cancer (CRC) is indeed lower in UC patients using mesalamine, a search for literature on this subject was performed on PubMed and Web of Science up to October 2014. To ensure suitability of the found publications, reviews, in vitro studies and studies on animal models were excluded.

Results: After screening 274 publications, 27 were selected for full-text review. Among these, 8 trials were found eligible and were included in the meta-analysis. It showed an odds ratio of 0.36 (95% CI; 0.21-0.62). Moreover, two meta-analyses were conducted to determine the influence of potential bias. These showed only minor difference as compared to the first meta-analysis.

Conclusions: Mesalamine significantly reduces the risk of CRC in patients with UC and can be considered chemoprotective. The results of this study may be used as an indication for long-term prescription of mesalamine for a chemopreventive purpose.

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Assessment of satisfaction with healthcare in patients with inflammatory bowel disease: An Online Korean Association for the Study of Intestinal Disease (KASID) Survey

Y.S. Kim1, S.A. Jung2*, K.M. Lee3, S.J. Park4, T.O. Kim5, C.-H. Choi6, H.G. Kim7, W. Moon8, C.M. Moon9, H.K. Song2, S.-Y. Na10, S.-K. Yang11
1Seoul National University Hospital Healthcare System Gangnam center, Internal Medicine, Seoul, South Korea, 2Ewha University school of Medicine, Internal Medicine, Seoul, South Korea, 3The Catholic University College of Medicine, Internal Medicine, Seoul, South Korea, 4Yonsei University College of Medicine, Internal Medicine, Seoul, South Korea, 5Haeundae Paik Hospital, Inje University College of Medicine, Internal Medicine, Seoul, South Korea, 6Chung-Ang University College of Medicine, Internal Medicine, Seoul, South Korea, 7Soonchunhyang University College of Medicine, Internal Medicine, Seoul, South Korea, 8Kosin University College of Medicine, Internal Medicine, Seoul, South Korea, 9Jeju National University School of Medicine, Internal Medicine, Seoul, South Korea, 10Korea, Republic of, 11Ulsan University College of Medicine, Internal Medicine, Seoul, South Korea

Background: Inflammatory bowel diseases (IBD) is chronic relapsing condition with unpredictable course and unclear etiology impacting on patient’s quality of life. Patient satisfaction with healthcare services provided for IBD is essential to improve treatment adherence,