from 12.8 ± 12.96 to 27.4 ± 41.17; $p = 0.07$; the mean of neutrophils increased from 4.45 ± 1.52 to 6.86 ± 12.11; $p = 0.59$). The *T*-test showed that the means of procalcitonin increased from 0.21 ± 0.07 to 0.23 ± 0.08, $p = 0.04$, the mean of lymphocytes increased from 1.35 ± 0.54 to 1.54 ± 0.62, $p = 0.1$. Pearson correlation coefficient showed statistically insignificant positive correlation between the dose of medication and variation of procalcitonin.

Conclusion: The study has showed that inflammatory indicators increased after the intravenous iron therapy to patients on hemodialysis.

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PS038

Distribution and quantification of elements of the enteric nervous system in the distal rectum of neonates and infants

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Aim: Analysis of variations in the ENS of distal rectum in neonates and infants under the age of 6 months, with no previous history of intestinal dismotility.

Introduction: The enteric nervous system (ENS) consists of numerous ganglia along the gastrointestinal tract. The most common disorder of ENS is Hirschsprung's disease (HD). Diagnostic problems may occur due to insufficient knowledge of the normal distribution of ganglion cells (GC) in the distal rectum.

Methods: The study analyzed ENS of distal rectum in autopsy samples of infants. The sections were stained with hematoxylin and eosin (H&E) and immunohistochemistry using the MAP-2 antibodies. All sections were analyzed at three levels: the level of anorectal junction (ARJ0), at 1 cm (ARJ1) and 2 cm (ARJ2) proximal to the ARJ0. We analyzed number of ganglia and GC, their distribution and thickness of the bundles of nerve fibers (BNF).

Results: GC were found at ARJ0 mainly within BNF of the intramuscular zone. Number of GC within BNF of intramuscular zone were lower at ARJ2 than ARJ1 (H&E: $p = 0.021$; MAP-2: $p = 0.017$). Number of GC in submucosal ganglia were significantly higher in ARJ1 and ARJ2 compared to ARJ0. In myenteric ganglia the number of GC were higher at ARJ1 compared to ARJ0 (H&E: $p = 0.002$; MAP-2: $p = 0.014$). Number of GC were significantly higher at ARJ2 compared to ARJ1 only in MAP-2 staining ($p = 0.009$). In submucosal plexus we observed higher number of ganglia at ARJ1 and ARJ2 ($p = 0.014$, both) compared to ARJ0 at MAP-2. In myenteric plexus there were higher number of ganglia at ARP1 compared to ARP0 (H&E: $p = 0.006$; MAP-2: $p = 0.014$). Individual thicker BNF were found in submucosa.

Conclusion: In distal rectum of neonates and infants there are significant variations in number of ganglia in the submucosal plexus up to ARJ2 and in myenteric plexus up to ARJ1.

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PS220

Inflammatory bowel diseases: Nutritional status and its significance for the course of the disease

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Aim: The aim of the study was to evaluate the association between the Body Mass Index(BMI) and the disease course of IBD patients.

Introduction: Inflammatory Bowel Disease(IBD) may lead to the underweight and malnourishment. However, the number of overweight and obese patients increases. Excess body weight connected with a pro-inflammatory state can modify the disease course.

Methods: Medical records from the University Hospital in Cracow Electronic System were screened from August 01, 2015 to December 31, 2016 in search of patients diagnosed with IBD. Data regarding the disease extension, occurrence of intestinal and extra-intestinal complications, number of days spent in the hospital annually and type of treatment was collected. The results were analyzed in the groups based on BMI (1 < 18.5; 2:18.5–25; 3 > 25 kg/m^2).

Results: 150 patients with Crohn's disease(CD) and 151 with ulcerative colitis(UC) were included. The median number of days spent in the hospital annually was significantly higher in the underweight group (13(IQR:11) vs 7(IQR:17) vs 7(IQR:12); $p < 0{,}01$). Overweight patients were less likely to receive anti-TNF or immunosuppressive treatment [anti-TNF (1:35% vs 2:38.36% vs 3:18.29%; 1 vs 3; $p = 0.02$; 2 vs 3; $p < 0.01$); immunosuppressive (1:40,00% vs 3:23, 17%; $p = 0.03$)]. Patients with BMI > 25 kg/m^2 developed fistulas and bowel strictures less often [fistulas (1:33.33% vs 2:27.04% vs 3:12.20%; 1 vs 3: $p < 0.01$; 2 vs 3; $p < 0.01$); strictures(1:25% vs 2:22, 64% vs 9.76%; 1 vs 3: $p = 0.01$; 2 vs 3: $p < 0{,}01$)]. Underweight UC patients had more extensive disease [left sided (1:25% vs 2:52.63% vs 3:49.02%; 1 vs 2: $p = 0.02$; 1 vs 3: $p = 0{,}04$); pancolitis (1:58.33% vs 2:26.32% vs 3:31.37%; 1 vs 2: $p < 0.01$; 1 vs 3: $p = 0{,}02$)].

Conclusion: Overweight seems to be associated with a milder clinical course of the disease in IBD patients. It is related to lower incidence of intestinal complications among CD and to less extensive intestine involvement in UC patients.

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PS023

Influence of glicoregulation and chronic degenerative complications of diabetes on bone mineral density

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Aim: The aim of this study is to determine the correlation between duration of diabetes, glicoregulation and chronic degenerative complications of diabetes, on one side, and bone mineral density, on the other side.