**Supplementary Table 1. Correlations of hematologic parameters with 6-thioguanine nucleotides in the azathioprine group.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 6-TGN | 6-MeMP | Hb | WBC | MCV | ANC | PC |
| CD | **Median** (range) | **169** (20-767) | **1,236** (15-22,500) | **8.2** (4.6-10.8) | **6.3** (2.4-37.2) | **90** (61-128) | **4.2** (2.0-12.2) | 354 (113-861) |
| Correlation [r *(*p*)*] |  | .231 (<0.001)\*\*\* | −.094 (NS) | −.280 (<0.001)\*\*\* | .146 (NS) | −.186 (NS) | .082 (NS) |
| N *(%)* | 186 | 186 *(100)* | 150 *(81)* | 150 *(81)* | 88 *(47)* | 77 *(41)* | 146 *(78)* |
| UC | **Median** (range) | **191** (24-608) | **1,927** (100-12,000) | **8.6** (5.1-10.8) | **5.7** (3.1-20.5) | **94** (78-114) | **3.2** (1.7-7.2) | 287 (152-719) |
| Correlation [r *(*p*)*] |  | .113 (NS) | −.316 (<0.05)\* | −.142 (NS) | .439 (<0.01)\*\* | −.104 (NS) | .007 (NS) |
| N *(%)* | 72 | 72 *(100)* | 62 *(86)* | 57 *(79)* | 41 *(57)* | 27 *(38)* | 59 *(82)* |
| IBDu | **Median** (range) | **211** | **789** | **8.1** | **7.3** | **-** | **-** | 271 |
| Correlation [r *(*p*)*] |  | - | - | - | - | - | - |
| N *(%)* | 1 | 1 *(100)* | 1 *(100)* | 1 *(100)* | 0 | 0 | 1 *(100)* |
| Othera | **Median** (range) | **127** (12-477) | **544** (108-9,500) | **8.6** (7.7-10.0) | **6.3** (2.6-11.3) | **92** (87-99) | **3.5** (2.2-4.9) | 274 (137-376) |
| Correlation [r *(*p*)*] | - | .055 (NS) | −.249 (NS) | −.683 (<0.05)\* | .643 (NS) | - | .095 (NS) |
| N *(%)* | 11 *(4)* | 11 *(100)* | 10 *(91)* | 9 *(82)* | 7 *(64)* | 2 *(18)* | 8 *(73)* |
| Total | **Median** (range) | **179** (12-767) | **1,318** (15-22,500) | **8.3** (4.6-10.8) | **6.2** (2.4-37.2) | **92** (61-128) | **3.9** (1.7-12.2) | 336 (113-861) |
| Correlation [r *(*p*)*] | - | .195 (<0.001)\*\*\* | −.158 (<0.05)\* | −.281 (<0.001)\*\*\* | .268 (<0.01)\*\* | −.193 (<0.05)\* | .037 (NS) |
| N *(%)* | 270 | 270 *(100)* | 223 *(83)* | 217 *(80)* | 136 *(50)* | 106 *(39)* | 214 *(79)* |

6-TGN: concentration of 6-thioguanine nucleotides, displayed as pmol/8 × 108 red blood cells; 6-MeMP: concentration of 6-methylmercaptopurine, displayed as pmol/8 × 108 red blood cells; Hb: Hemoglobin concentration; WBC: white blood cell count; MCV: mean corpuscular volume; ANC: absolute neutrophil count; PC: platelet count

CD: Crohn’s disease; UC: ulcerative colitis; IBDu: inflammatory bowel disease unclassified

aOther: microscopic colitis, celiac disease, autoimmune pancreatitis

\*Statistically significant at the level p < 0.05

\*\*Statistically significant at the level p < 0.01

\*\*\*Statistically significant at the level p < 0.001

NS: not significant

**Supplementary Table 2. Correlations of hematologic parameters with 6-thioguanine nucleotides in the mercaptopurine group.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 6-TGN | 6-MeMP | Hb | WBC | MCV | ANC | PC |
| CD | **Median** (range) | **181** (17-783) | **896** (15-33,000) | **8.2** (4.9-10.9) | **5.9** (1.1-25.3) | **93** (80-115) | **3.9** (0.5-13.1) | 317 (84-677) |
| Correlation [r *(*p*)*] |  | −.050 (NS) | −.202 (<0.01)\*\* | −.319 (<0.001)\*\*\* | .370 (<0.001)\*\*\* | −.391 (<0.001)\*\*\* | −.060 (NS) |
| N *(%)* | 241 | 241 *(100)* | 210 *(87)* | 208 *(86)* | 132 *(55)* | 98 *(41)* | 207 *(86)* |
| UC | **Median** (range) | **220** (22-777) | **791** (15-30,500) | **8.1** (4.8-11.2) | **5.1** (0.4-13.9) | **97** (82-121) | **3.2** (0.7-6.2) | 310 (35-522) |
| Correlation [r *(*p*)*] |  | −.072 (NS) | −.075 (NS) | −.065 (NS) | .190 (NS) | −.018 (NS) | .190 (NS) |
| N *(%)* | 115 | 115 *(100)* | 94 *(52)* | 93 *(51)* | 51 *(44)* | 45 *(39)* | 91 *(79)* |
| IBDu | **Median** (range) | **274** (100-686) | **510** (110-16,000) | **9.1** (7.3-9.8) | **6.0** (3.9-10.0) | **102** (93-108) | **3.1** (3.1-5.2) | 258 (189-477) |
| Correlation [r *(*p*)*] |  | −.110 (NS) | −.676 (<0.05)\* | −.545 (NS) | .500 (NS) | .500 (NS) | .091 (NS) |
| N *(%)* | 13 | 13 *(100)* | 12 *(92)* | 12 *(92)* | 5 *(38)* | 3 *(23)* | 12 *(92)* |
| Othera | **Median** (range) | **153** (46-535) | **665** (15-13,500) | **8.2** (7.1-9.2) | **6.0** (3.5-10.0) | **99** (90-108) | **3.7** (1.7-5.6) | 245 (176-449) |
| Correlation [r *(*p*)*] |  | −.154 (NS) | −.025 (NS) | −.205 (NS) | .228 (NS) | .288 (NS) | −.128 (NS) |
| N *(%)* | 35 | 35 *(100)* | 25 *(71)* | 21 *(60)* | 15 *(43)* | 14 *(40)* | 20 *(57)* |
| Total | **Median** (range) | **190** (17-783) | **798** (15-33,000) | **8.2** (4.8-11.2) | **5.8** (0.4-25.3) | **94** (80-121) | **3.7** (0.5-13.1) | 310 (35-677) |
| Correlation [r *(*p*)*] |  | −.065 (NS) | −.156 (<0.01)\*\* | −.246 (<0.001)\*\*\* | .291 (<0.001)\*\*\* | −.225 (<0.01)\*\* | .005 (NS) |
| N *(%)* | 404 | 404 *(100)* | 341 *(84)* | 334 *(83)* | 203 *(50)* | 160 *(40)* | 330 *(82)* |

6-TGN: concentration of 6-thioguanine nucleotides, displayed as pmol/8 × 108 red blood cells; 6-MeMP: concentration of 6-methylmercaptopurine, displayed as pmol/8 × 108 red blood cells; Hb: Hemoglobin concentration; WBC: white blood cell count; MCV: mean corpuscular volume; ANC: absolute neutrophil count; PC: platelet count; NS: not significant; CD: Crohn’s disease; UC: ulcerative colitis; IBDu: inflammatory bowel disease unclassified

aOther: microscopic colitis, celiac disease, autoimmune pancreatitis

\*Statistically significant at the level p < 0.05

\*\*Statistically significant at the level p < 0.01

\*\*\*Statistically significant at the level p < 0.001

**Supplementary Table 3. Correlations of hematologic parameters with 6-thioguanine nucleotides in the 6-thioguanine group.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 6-TGN | Hb | WBC | MCV | ANC | PC |
| CD | **Median** (range) | **395** (150-1,058) | **8.4** (5.3-10.6) | **7.5** (2.7-12.8) | **89** (76-94) | **6.0** (3.3-7.9) | 319 (137-578) |
| Correlation [r *(*p*)*] |  | .153 (NS) | .165 (NS) | .392 (NS) | .297 (NS) | .093 (NS) |
| N *(%)* | 72 | 57 | 42 | 12 | 17 | 45 |
| UC | **Median** (range) | **365** (45-2,364) | **8.9** (6.2-10.9) | **7.5** (4.6-10.8) | **89** (74-95) | **4.0** (2.2-6.2) | 298 (229-744) |
| Correlation [r *(*p*)*] |  | −.234 (NS) | .060 (NS) | .056 (NS) | −.143 (NS) | .236 (NS) |
| N *(%)* | 64 | 48 | 39 | 12 | 14 | 43 |
| IBDu | **Median** (range) | **268** | **9.7** | **9.0** | **-** | **6.6** | 366 |
| Correlation [r *(*p*)*] |  | - | - | - | - | - |
| N *(%)* | 1 | 1 | 1 | 0 | 1 | 1 |
| Othera | **Median** (range) | **337** (12-1,126) | **8.3** (6.3-10.4) | **6.6** (2.8-16.0) | **91** (90-92) | **3.5** (1.3-7.0) | 282 (148-478) |
| Correlation [r *(*p*)*] |  | .122 (NS) | .172 (NS) | - | .081 (NS) | .328 (<0.01)\*\* |
| N *(%)* | 129 | 108 | 81 | 2 | 21 | 79 |
| Total | **Median** (range) | **356** (12-2364) | **8.4** (5.3-10.9) | **7.1** (2.7-16.0) | **90** (74-95) | **4.2** (1.3-7.9) | 293 (137-744) |
| Correlation [r *(*p*)*] |  | .074 (NS) | .174 (<0.05)\* | .127 (NS) | .109 (NS) | .254 (<0.01)\*\* |
| N *(%)* | 266 | 214 *(80)* | 163 *(61)* | 26 *(10)* | 53 *(20)* | 168 *(63)* |

6-TGN: concentration of 6-thioguanine nucleotides, displayed as pmol/8 × 108 red blood cells; 6-MeMP: concentration of 6-methylmercaptopurine, displayed as pmol/8 × 108 red blood cells; Hb: Hemoglobin concentration; WBC: white blood cell count; MCV: mean corpuscular volume; ANC: absolute neutrophil count; PC: platelet count; NS: not significant; CD: Crohn’s disease; UC: ulcerative colitis; IBDu: inflammatory bowel disease unclassified

aOther: microscopic colitis, celiac disease, autoimmune pancreatitis

\*Statistically significant at the level p < 0.05

\*\*Statistically significant at the level p < 0.01

\*\*\*Statistically significant at the level p < 0.001