Supplementary Table 1. The number and mean size of the measured polyps at the baseline and post-treatment evaluations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Placebo |  | Metformin 500 mg |  | Metformin 1500 mg |  |
|  | Baseline | Post-treatment | P-value | Baseline | Post-treatment | P-value | Baseline | Post-treatment | P-value |
| **Colorectum** |  |  |  |  |  |  |  |  |  |
| Number of polyps(mean ± SD) | 10.0 ± 5.8  | 10.1 ± 6.3 | 0.655 | 10.6 ± 4.41 | 10.6 ± 4.03 | 1.000 | 12.5 ± 7.73 | 13.0 ± 8.17 | 0.157 |
| Mean size of polyps (mm; mean ± SD)  | 2.89 ± 0.53 | 2.88 ± 0.57 | 0.593 | 2.87 ± 0.55 | 2.89 ± 0.51 | 0.345 | 3.03 ± 0.67 | 3.12 ± 0.59 | 1.000 |
| **Ascending colon**  |  |  |  |  |  |  |  |  |  |
| Number of polyps (mean ± SD) | 7.4 ± 5.81 | 7.6 ± 6.50 | 0.655 | 7.3 ± 2.38 | 7.5 ± 2.39 | 0.414 | 8.0 ± 5.66 | 8.7 ± 6.35 | 0.157 |
| Mean size of polyps (mm; mean ± SD)  | 3.41 ± 1.49 | 3.43 ± 1.52 | 1.000 | 2.75 ± 0.78 | 2.83 ± 0.75 | 0.138 | 3.15 ± 0.99 | 3.13 ± 1.00 | 0.180 |
| **Rectum**  |  |  |  |  |  |  |  |  |  |
| Number of polyps(mean ± SD) | 4.7 ± 1.60 | 4.7 ± 1.60 | 1.000 | 5.36 ± 1.96 | 5.18 ± 1.66 | 0.317 | 6.5 ± 6.32 | 6.5 ± 6.32 | 1.000 |
| Mean size of polyps(mm; mean ± SD) | 2.87 ± 0.56 | 2.83 ± 0.47 | 0.317 | 3.00 ± 0.54 | 2.98 ± 0.47 | 0.655 | 3.07 ± 0.73 | 3.20 ± 0.62 | 0.180 |
| **Duodenum**  |  |  |  |  |  |  |  |  |  |
| Number of polyps (mean ± SD) | 4.0 ± 1.87 | 4.0 ± 1.87 | 1.000 | 4.8 ± 3.15 | 4.8 ± 3.15 | 1.00 | 5.2 ± 1.17 | 5.2 ± 1.17 | 1.000 |
| Mean size of polyps (mm; mean ± SD) | 3.20 ± 1.21 | 3.33 ± 1.17 | 0.317 | 3.98 ± 1.28 | 4.12 ± 1.15 | 0.180 | 3.58 ± 0.76 | 3.67 ± 0.85 | 0.180 |

The “Colorectum” heading indicates the sum of the data from the ascending colon and the rectum.

SD, standard deviation

Supplementary Table 2. Comparison of overall polyp burden response status

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Location | Change in overall polyp burden | Placebo (%) | Metformin 500 mg (%) | Metformin 1500 mg (%) | P-value |
| **Colorectum** |  |  |  |  | 0.560 |
|  | Response | 0/7 (0) | 1/11 (9.1) | 0/8 (0)  |  |
|  | No change | 7/7 (100) | 8/11 (72.7) | 7/8 (87.5) |  |
|  | Progress | 0/7 (0 ) | 2/11 (18.2) | 1/8 (12.5) |  |
|  Ascending colon | Response |  0/6 (0) |  0/9 (0) |  0/7 (0) | 0.204 |
|  | No change |  6/6 (100) |  7/9 (77.8) |  7/7 (100) |  |
|  | Progress |  0/6 (0) |  2/9 (22.2) |  0/7 (0) |  |
| Rectum | Response |  0/7 (0) |  1/11 (9.1) |  0/8 (0) | 0.451 |
|  | No change |  7/7 (100) |  10/11 (90.9) |  7/8 (87.5) |  |
|  | Progress |  0/7 (0) |  0/11 (0) |  1/8 (12.5) |  |
| **Duodenum** |  |  |  |  | 0.686 |
|  | Response | 0/5 (0) | 0/8 (0) | 0/7 (0) |  |
|  | No change | 5/5 (100) | 7/8 (87.5) | 6/7 (85.7) |  |
|  | Progress | 0/5 (0) | 1/8 (12.5) | 1/7 (14.3) |  |



Supplement Figure 1. Number of polyps in the marked area of the ascending colon (A-colon) and rectum at the baseline and post-treatment evaluations in the placebo and metformin groups.

\* represents two cases; ǂ represents three cases; # represents four cases.



Supplement Figure 2. Size of the polyps in the marked area of the ascending colon (A-colon) and rectum at the baseline and post-treatment endoscopies in the placebo and metformin groups.

\* represents two cases; ǂ represents three cases.