**Supplementary material**

Table 1 – Length of motor complexes (all control periods)

|  |  |  |
| --- | --- | --- |
|  | Mean length | Count |
| Anterograde | 114 ± 14 | 736 |
| Retrograde | 109 ± 18 | 458 |
| Simultaneous | 125 ± 17 | 13 |
| All | 116 ± 15 | 1207 |

Mean length in mm ± SEM; n = 30. See text for details

Table 2 – Propagation of motor complexes (physostigmine **control** period, n = 13)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Small intestine | Colon | Full intestine | All MCs |
| Anterograde | 128 (57%) | 176 (64%) | 40 (48%) | 344 (59%) |
| Retrograde | 91 (41%) | 96 (35%) | 44 (52%) | 231 (40%) |
| Simultaneous | 4 (2%) | 2 (1%) | 0 (0%) | 6 (1%) |
| Total | 223 | 274 | 84 | 581 |

Percentages refer to proportion within a column. See text for details.

Table 3 - Propagation of motor complexes (physostigmine **drug** period, n = 13)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Small intestine | Colon | Full intestine | All MCs |
| Anterograde | 85 (55%) | 90 (60%) | 51 (46%) | 226 (54%) |
| Retrograde | 70 (45%) | 60 (40%) | 58 (52%) | 188 (45%) |
| Simultaneous | 1 (1%) | 1 (1%) | 2 (2%) | 4 (1%) |
| Total | 156 | 151 | 111 | 418 |

Percentages refer to proportion within a column. See text for details

Table 4 – Counts and proportions of MCs in physostigmine versus control (n = 13)

|  |  |  |
| --- | --- | --- |
|  | Control | Physostigmine |
| Small intestine | 223 (38%) | 156 (37%) |
| Colon | 274 (47%) | 151 (36%) |
| Full intestine | 84 (15%) | 111 (27%) |
| Total | 581 | 418 |

Percentages refer to proportion within a column. See text for details.

Table 5 – Motor complex length – effect of physostigmine (n = 13)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Control | Physostigmine | *P* (paired t-test) |
| Anterograde | 116 ± 18 | 162 ± 25 | 0.073 |
| Retrograde | 116 ± 16 | 165 ± 26 | 0.064 |
| Simultaneous | 116 ± 24 | 180 ± 35 | ND |
| All | 116 ± 15 | 162 ± 25 | 0.070 |

Mean length in mm ± SEM; n = 13. ND, no data available for paired analysis. See text for details.