Additional file 4 - Median values of fitness tests at each point time and change to intervention start (D1, D2).

|  |  |  | T0 | T1 | T2 | D1 (T1baseline) | $\begin{aligned} & \hline \text { D2 (T2- } \\ & \text { baseline) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Side jumps ( $\mathrm{n} / 30 \mathrm{sec}$ ) | PM | median (range) | $\begin{aligned} & 71.5 \\ & \text { (51 to 84) } \end{aligned}$ | $\begin{aligned} & 81.5 \\ & \text { (63 to 99) } \end{aligned}$ | $\begin{aligned} & 84.0 \\ & (64 \text { to 101) } \end{aligned}$ | $\begin{aligned} & 12.0^{* *} \\ & (2 \text { to } 27) \end{aligned}$ | $\begin{aligned} & 14.0^{*} \\ & (2 \text { to } 24) \end{aligned}$ |
|  | CON | median (range) | $\begin{aligned} & 69.0 \\ & (62 \text { to } 82) \end{aligned}$ | $\begin{aligned} & 80.0 \\ & (67 \text { to 103) } \end{aligned}$ | $\begin{aligned} & 79.0 \\ & (70 \text { to 114) } \end{aligned}$ | $\begin{aligned} & 9.0^{*} \\ & (4 \text { to } 23) \end{aligned}$ | $\begin{aligned} & 11.0^{*} \\ & (3 \text { to } 32) \end{aligned}$ |
|  |  | $p$-value ${ }^{\text {a }}$ (group differences) | 0.79 | 0.58 | 0.61 | 0.4 | 0.41 |
| Tap Test (sec/25 cycles) | PM | median (range) | $\begin{aligned} & 12.4 \\ & (10 \text { to 21) } \end{aligned}$ | $\begin{aligned} & \hline 10.6 \\ & (8 \text { to } 17) \end{aligned}$ | $\begin{aligned} & \hline 10.9 \\ & (7 \text { to 16) } \end{aligned}$ | $\begin{aligned} & \hline-1.6^{\star *} \\ & (-3 \text { to } 1) \end{aligned}$ | $\begin{aligned} & -2.7^{*} \\ & (-5 \text { to }-0) \end{aligned}$ |
|  | CON | median (range) | $\begin{aligned} & 11.7 \\ & (10 \text { to } 16) \end{aligned}$ | $\begin{aligned} & 11.3 \\ & (9 \text { to } 14) \end{aligned}$ | $\begin{aligned} & 10.8 \\ & (8 \text { to 15) } \end{aligned}$ | $\begin{aligned} & -1.4^{*} \\ & (-3 \text { to } 1) \end{aligned}$ | $\begin{aligned} & -1.3^{*} \\ & (-2 \text { to } 0) \\ & \hline \end{aligned}$ |
|  |  | $p$-value ${ }^{\text {a }}$ (group differences) | 0.49 | 0.88 | 0.93 | 0.24 | 0.055 |
| 6-minuterun (km) | PM | median (range) | $\begin{aligned} & 0.75 \\ & (0.5 \text { to } 1.0) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.79 \\ & (0.6 \text { to } 0.9) \end{aligned}$ | $\begin{aligned} & 0.81 \\ & (0.6 \text { to } 0.9) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.03 \\ & (-0.1 \text { to } 0.2) \end{aligned}$ | $\begin{aligned} & 0.05 \\ & (-0.1 \text { to } 0.2) \end{aligned}$ |
|  | CON | median (range) | $\begin{aligned} & 0.79 \\ & (0.7 \text { to } 0.9) \end{aligned}$ | $\begin{aligned} & 0.83 \\ & (0.7 \text { to } 1.1) \end{aligned}$ | $\begin{aligned} & 0.83 \\ & (0.7 \text { to } 1.1) \end{aligned}$ | $\begin{aligned} & 0.05^{*} \\ & (-0.0 \text { to } 0.3) \end{aligned}$ | $\begin{aligned} & 0.12 \\ & (-0.1 \text { to } 0.2) \end{aligned}$ |
|  |  | p -value ${ }^{\mathrm{a}}$ (group differences) | 0.2 | 0.14 | 0.21 | 0.4 | 0.28 |
| Balance (failures per min) | PM | median (range) | $\begin{aligned} & 2.0 \\ & (0 \text { to 10) } \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (0 \text { to 10) } \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (0 \text { to } 7) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (-4 \text { to } 7) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (-4 \text { to } 2) \end{aligned}$ |
|  | CON | median (range) | $\begin{aligned} & 0.0 \\ & (0 \text { to } 3) \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (0 \text { to 2) } \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (0 \text { to } 1) \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (-3 \text { to } 2) \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (0 \text { to } 0) \end{aligned}$ |
|  |  | $p$-value ${ }^{\text {a }}$ (group differences) | 0.13 | 0.15 | 0.89 | 0.98 | 0.19 |


| Jump distance (cm) | PM | median (range) | $\begin{aligned} & 121.0 \\ & (100 \text { to 171) } \\ & \hline \end{aligned}$ | $\begin{aligned} & 131.0 \\ & \text { (97 to 189) } \end{aligned}$ | $\begin{aligned} & 137.0 \\ & (103 \text { to } 182) \\ & \hline \end{aligned}$ | $\begin{aligned} & 7.5^{*} \\ & (-20 \text { to } 25) \end{aligned}$ | $\begin{aligned} & 11.0 \\ & (-21 \text { to } 29) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CON | median (range) | $\begin{aligned} & 127.0 \\ & (106 \text { to } 172) \end{aligned}$ | $\begin{aligned} & 142.0 \\ & (108 \text { to } 177) \end{aligned}$ | $\begin{aligned} & 145.0 \\ & (100 \text { to } 196) \end{aligned}$ | $\begin{aligned} & 10.5^{*} \\ & (-19 \text { to } 35) \end{aligned}$ | $\begin{aligned} & 18.0 \\ & (-27 \text { to } 56) \end{aligned}$ |
|  |  | $p$-value ${ }^{\text {a }}$ (group differences) | 0.35 | 0.24 | 0.11 | 0.67 | 0.12 |
| $\begin{aligned} & \text { Sit-ups } \\ & (n / 40 \mathrm{~s}) \end{aligned}$ | PM | median (range) | $\begin{aligned} & 18.0 \\ & (2 \text { to } 26) \end{aligned}$ | $\begin{aligned} & 20.5 \\ & (3 \text { to } 28) \end{aligned}$ | $\begin{aligned} & 20.0 \\ & (12 \text { to } 30) \end{aligned}$ | $\begin{aligned} & 1.0^{*} \\ & (-7 \text { to } 8) \end{aligned}$ | $\begin{aligned} & 4.5^{*} \\ & (-1 \text { to } 11) \end{aligned}$ |
|  | CON | median (range) | $\begin{aligned} & 19.0 \\ & (5 \text { to } 27) \\ & \hline \end{aligned}$ | $\begin{aligned} & 23.5 \\ & (16 \text { to 28) } \end{aligned}$ | $\begin{aligned} & 23.0 \\ & (18 \text { to } 28) \end{aligned}$ | $\begin{aligned} & 2.5^{*} \\ & (-1 \text { to } 11) \\ & \hline \end{aligned}$ | $\begin{aligned} & 3.0^{*} \\ & (-2 \text { to } 13) \end{aligned}$ |
|  |  | $p$-value ${ }^{\text {a }}$ (group differences) | 0.6 | 0.33 | 0.3 | 0.37 | 1 |
| Push-ups(n/40 s) | PM | median (range) | $\begin{aligned} & \hline 8.5 \\ & (0 \text { to 13) } \\ & \hline \end{aligned}$ | $\begin{aligned} & 9.5 \\ & (0 \text { to } 18) \end{aligned}$ | $\begin{aligned} & 10.5 \\ & (0 \text { to 18) } \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.5^{*} \\ & (0 \text { to } 9) \\ & \hline \end{aligned}$ | $\begin{aligned} & 3.0^{*} \\ & (0 \text { to 10) } \\ & \hline \end{aligned}$ |
|  | CON | median (range) | $\begin{aligned} & 8.0 \\ & (4 \text { to 17) } \end{aligned}$ | $\begin{aligned} & 11.5 \\ & (6 \text { to } 18) \end{aligned}$ | $\begin{aligned} & 13.0 \\ & (10 \text { to } 19) \end{aligned}$ | $\begin{aligned} & 3.0^{*} \\ & (0 \text { to } 6) \end{aligned}$ | $\begin{aligned} & 4.0^{*} \\ & (1 \text { to } 7) \end{aligned}$ |
|  |  | $p$-value ${ }^{\text {a }}$ (group differences) | 0.42 | 0.35 | 0.2 | 0.8 | 0.57 |
| Sit and reach Flexibility (cm) | PM | median (range) | $\begin{aligned} & -3.5 \\ & (-16 \text { to } 9) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.5 \\ & (-14 \text { to } 13) \\ & \hline \end{aligned}$ | $\begin{aligned} & -2.0 \\ & (-18 \text { to } 15) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 4.0^{* *} \\ \text { (-1 to } 12) \\ \hline \end{array}$ | $\begin{aligned} & 2.5 \\ & (-4 \text { to 11) } \\ & \hline \end{aligned}$ |
|  | CON | median (range) | $\begin{aligned} & 1.0 \\ & (-15 \text { to } 14) \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (-16 \text { to } 13) \end{aligned}$ | $\begin{aligned} & -3.0 \\ & (-16 \text { to } 13) \end{aligned}$ | $\begin{aligned} & 2.5 \\ & (-3 \text { to } 4) \end{aligned}$ | $\begin{aligned} & 0.0 \\ & (-3 \text { to } 7) \end{aligned}$ |
|  |  | $p$-value ${ }^{\text {a }}$ (group differences) | 0.42 | 0.9 | 1 | 0.035 | 0.51 |
| Number of patients (all tests) | PM | n | 18 | 18 | 14 | 18 | 14 |
|  | CON | n | 13 | 12 | 9 | 12 | 9 |

* p-values $\leq 0.05$, ** p-values $<0.001$
${ }^{\text {a }} \mathrm{p}$-values testing the significance of group differences at each time point, and of group differences in change. Null hypothesis: medians of both groups are equal.
PM: PathMate group, CON: Control group, T0: intervention start, T1 and T2: 5.5 and 12 months after intervention start, respectively

