Table 1.

Demographics of subjects and time from surgery until start of intervention

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Group** | **Number** | **Age** | **Gender** | **Ethnicity** | **Residual Limb** | **Above/ Below Knee Amputation** | **Time from surgery to**  **start of intervention** | **Education Level** |
| Acute | 1 | 55 | M | Caucasian | Left | BKA | 48 hours | College |
| Acute | 2 | 55 | F | Caucasian | Right | AKA | 40 hours | High school |
| Acute | 3 | 78 | M | African-American | Left | BKA | 32 hours | High school |
| Acute | 4 | 61 | M | Caucasian | Left | BKA | 36 hours | College |
| Acute | 5 | 58 | M | Hispanic | Right | BKA | 35 hours | College |
| Acute | 6 | 53 | F | Caucasian | Right | BKA | 28 hours | College |
| Acute | 7 | 73 | F | African-American | Left | BKA | 30 hours | High school |
| Acute | 8 | 43 | F | Caucasian | Right | AKA | 40 hours | High school |
| Acute | 9 | 48 | M | Caucasian | Right | BKA | 48 hours | College |
| Chronic | 10 | 73 | M | Caucasian | Left | BKA | 21 months | College |
| Chronic | 11 | 51 | F | Hispanic | Left | AKA | 8 months | High school |
| Chronic | 12 | 59 | M | African-American | Right | AKA | 28 months | High school |
| Chronic | 13 | 63 | F | Caucasian | Right | BKA | 9 months | College |
| Chronic | 14 | 62 | M | African-American | Left | BKA | 25 months | High school |

AKA: Above knee amputation

BKA: Below knee amputation

Table 2.

Mean, Standard Deviation and ANOVA between three time periods for combined subject group

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **All Subjects**  **n = 14** | | | | | |
| **Variable** | **Pre-treatment** | **Post-treatment** | **Maintence** | **ANOVA** | |
| **n = 14** | **Mean (SD)** | **Mean (SD)** | **Mean (SD)** | **F (2,26)** | **p-value** |
| **Residual Limb Effects** | | | | | |
| **Edema (centimeters)** | 40.6 (5.5) cm | 38.7 (5.8) cm | 37.8 (6.2) cm | 5.86 | .008 |
| **Temperature with Amputee Limb Cover** | 31.3 (1.6) °C | 31.0 (1.5) °C | 32.1 (1.5) °C | 11.75 | <.001 |
| **Temperature without Cover** | 31.8 (1.3) °C | 31.5 (1.4) °C | 30.8 (1.4) °C | 3.04 | .065 |
| **Phantom Limb Pain** | | | | | |
| **Intensity (0-10)** | 28.5 (7.4) | 69.14 (7.4) | 87.21 (7.4) | 16.64 | <.000 |
| **Frequency (0-6)** | 4.8 (1.5) | 1.71 (1.9) | 2.0 (1.8) | 25.74 | <.001 |
| **Duration (0-6)** | 2.4(1.6) | 1.9 (1.2) | 1.6 (1.5) | 1.53 | .235 |
| **Bothersomeness (0-100)** | 18.4 (28.8) | 69.6 (34.8) | 87.0 (28.4) | 25.06 | <.001 |

SD = standard deviation

Edema: measured in centimeters (cm) around the widest part of the residual limb cm

Temperature amputee limb cover: temperature of residual limb covered with amputee limb cover °C

Temperature no cover: temperature of residual limb with no cover °C

Intensity:Worst PLP daily, averaged over 4 weeks on a VAS in millimeters from 0 (no pain) to 10 (pain as bad as you can imagine)

Frequency: How often subjects experienced PLP over 4 weeks from 0 (never) to 6 (all the time)

Duration: How long each PLP episode lasts on a VAS in millimeters from 0 (I have none) to 6 (more than two days).

Bothersomeness:How bothersome PLP was over 4 weeks on a VAS in millimeters from 0 (extremely bothersome) to 100 (extremely mild)

Table 2 continued:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **All Subjects**  **n = 14** | | | | | |
| **Variable** | **Pre-treatment** | **Post-treatment** | **Maintence** | **ANOVA** | |
| **n = 14** | **M (SD)** | **M (SD)** | **M (SD)** | **F (2,26)** | **p-value** |
| **ADL Interference** | | | | | |
| **Self-care (0-10)** | 3.2 (2.1) | 1.0 (1.4) | .6 (1.1) | 16.18 | <.001 |
| **Walking (0-10)** | 3.8 (3.3) | 1.0 (1.2) | .7 (1.1) | 10.63 | <.001 |
| **Car Transfer (0-100)** | 65.9 (44.0) | 95.4 (8.3) | 97.8 (4.8) | 7.31 | .003 |
| **Low Chair Transfer (0-100)** | 48.4 (41.3) | 75.4 (32.4) | 74.1 (30.5) | 5.57 | .010 |
| **Sleep (0-10)** | 4.3 (2.6) | 1.5 (2.1) | .5 (.6) | 23.3 | <.001 |
| **Well-being** | | | | | |
| **Satisfaction (0-100)** | 81.5 (17.8) | 85.1 (24.2) | 92.9 (13.0) | 1.50 | .242 |
| **Mood (0-10)** | 3.1 (3.0) | 1.0 (1.9) | .9 (1.7) | 12.22 | <.001 |
| **QOL (0-100)** | 53.9 (29.0) | 75.6 (29.6) | 84.8 (17.7) | 7.98 | .002 |

Self-care: the amount that PLP interferes with self-care tasks daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Walking: the amount that PLP interferes with walking ability daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Car transfer: ability to get in and out of car in the past four weeks using VAS, measured in millimeters from 0 (Cannot) to 100 (No Problem)

Low-chair transfer: ability to sit down and get up from chair with a low seat (e.g. an easy chair or deep sofa) 0 (Cannot) to 100 (No Problem)

in the past four weeks using VAS, measured in millimeters from

Sleep: the amount that PLP interferes with sleep daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Satisfaction: with how things have worked out since amputation, in the past four weeks using VAS, measured in millimeters from 0 (Extremely dissatisfied) to 100 (Extremely satisfied)

Mood : the amount that PLP interferes with mood daily, rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

QOL: Quality of Life in the past four weeks using VAS, measured in millimeters from 0 (Extremely dissatisfied) to 100 (Extremely satisfied)

p = 0.05

Table 3.

Mean, Standard Deviation and ANOVA for separate acute and chronic groups between three time periods

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **GROUPS** | **ACUTE**  **n = 9** | | | | | **CHRONIC**  **n = 5** | | | | |
|  | **Pre-treatment** | **Post-treatment** | **Maintenance** | **ANOVA** | | **Pre-treatment** | **Post-treatment** | **Maintenance** | **ANOVA** | |
|  | **Mean (SD)** | **Mean (SD)** | **Mean (SD)** | **F (2,16)** | **p-value** | **Mean (SD)** | **Mean (SD)** | **Mean (SD)** | **F (2,8)** | **p-value** |
| **Residual Limb** | | | | | | | | | | |
| **Edema (centimeters)** | 40.7 (6.1) cm | 37.8 (6.2) cm | 36.2 (5.7) cm | 10.23 | .001 | 40.4 (4.8) cm | 40.3 (5.4) cm | 40.5 (6.6) cm | 0.17 | .983 |
| **Temperature amputee limb cover (°C)** | 31.7 (1.5) °C | 31.6 (1.3) °C | 32.7 (1.3) °C | 6.18 | .010 | 30.6 (1.6) °C | 30.0 (1.4) °C | 31.0 (1.4) °C | 21.71 | .001 |
| **Temperature without cover (°C)** | 32.3 (.5) °C | 32.0 (1.3) °C | 30.8 (1.5) °C | 4.15 | .035 | 30.8 (1.8) °C | 30.5 (1.1) °C | 30.8 (1.3) °C | .42 | .672 |
| **PLP** | | | | | | | | | | |
| **Intensity (0-10)** | 6.3 (1.5) | 2.4 (2.6) | 1.2 (1.9) | 2.69 | .098 | 6.4 (2.1) | 4.1 (1.8) | .9 (.7) | 5.70 | .029 |
| **Frequency (0-6)** | 4.6 (1.8) | 1.4 (1.9) | 1.8 (1.8) | 14.93 | <.001 | 5.2 (.8) | 2.2 (1.9) | 2.4 (2.1) | 8.98 | .009 |
| **Duration (0-6)** | 2.7 (1.7) | 1.9 (1.3) | 1.9 (1.7) | .86 | .441 | 2.0 (1.2) | 2.0 (1.2) | 1.2 (1.1) | 3.37 | .087 |
| **Bothersomeness (0-100)** | 20.4 (33.3) | 67.0 (40.8) | 82.3 (34.8) | 9.65 | .002 | 14.8 (21.4) | 74.2 (23.6) | 95.4 (8.1) | 29.51 | <.001 |

SD = standard deviation

Edema: measured in centimeters (cm) around the widest part of the residual limb cm

Temperature amputee limb cover: temperature of residual limb covered with amputee limb cover °C

Temperature without cover: temperature of residual limb with no cover °C

Intensity:Worst PLP daily, averaged over 4 weeks on a VAS in millimeters from 0 (no pain) to 10 (pain as bad as you can imagine)

Frequency: How often subjects experienced PLP over 4 weeks from 0 (never) to 6 (all the time)

Duration: How long each PLP episode lasts on a VAS in millimeters from 0 (I have none) to 6 (more than two days).

Bothersomeness:How bothersome PLP was over 4 weeks on a VAS in millimeters from 0 (extremely bothersome) to 100 (extremely mild). p< .050

Table 3 continued.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ADL Interference** | | | | | | | | | | |
| **Self-care (0-10)** | 3.5 (2.2) | .5 (.9) | .4 (.7) | 16.52 | <.001 | 2.8 (2.1) | 1.7 (1.9) | 1.2 (1.7) | 2.321 | .160 |
| **Walking (0-10)** | 3.8 (4.2) | .5 (.8) | .4 (.7) | 9.44 | .002 | 4.0 (3.7) | 1.8 (1.3) | 1.2 (1.7) | 1.85 | .219 |
| **Car Transfer (0-100)** | 61.2 (47.0) | 96.3 (7.0) | 99.0 (.0) | 5.72 | .013 | 74.2 (41.9) | 93.8 (11.1) | 95.6 (8.2) | 1.40 | .301 |
| **Low Chair Transfer (0-100)** | 58.8 (45.0) | 82.2 (25.6) | 84.8 (27.9) | 3.07 | .074 | 29.8 (28.6) | 63.2 (42.5) | 54.8 (27.1) | 2.30 | .162 |
| **Sleep (0-10)** | 3.9 (2.8) | 1.3 (2.1) | .3 (.5) | 11.17 | .001 | 4.9 (2.3) | 1.9 (2.1) | .8 (.8) | 12.36 | .004 |
| **Well-being** | | | | | | | | | | |
| **Satisfaction (0-100)** | 78.7 (20.5) | 84.6 (28.3) | 91.0 (15.5) | .44 | .652 | 86.6 (11.8) | 86.0 (17.5) | 96.2 (6.8) | 4.29 | .054 |
| **Mood (0-10)** | 2.9 (3.2) | .4 (.9) | .4 (.8) | 8.57 | .003 | 3.3 (3.0) | 2.1 (2.7) | 1.7 (2.6) | 4.27 | .055 |
| **QOL (0-100)** | 55.6 (25.4) | 82.9 (27.7) | 84.8 (14.4) | 4.84 | .023 | 50.8 (37.8) | 62.4 (31.1) | 84.6 (24.7) | 4.24 | .056 |

Self-care: the amount that PLP interferes with self-care tasks daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Walking: the amount that PLP interferes with walking ability daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Car transfer: ability to get in and out of car in the past four weeks using VAS, measured in millimeters from 0 (Cannot) to 100 (No Problem)

Low-chair transfer: ability to sit down and get up from chair with a low seat (e.g. an easy chair or deep sofa) in the past four weeks using VAS, measured in millimeters from 0 (Cannot) to 100 (No Problem)

Sleep: the amount that PLP interferes with sleep daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Satisfaction: with how things have worked out since amputation, in the past four weeks using VAS, measured in millimeters from 0 (Extremely dissatisfied) to 100 (Extremely satisfied)

Mood : the amount that PLP interferes with mood daily, rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

QOL: Quality of Life in the past four weeks using VAS, measured in millimeters from 0 (Extremely dissatisfied) to 100 (Extremely satisfied).

p <0.050

Table 4.

LSD post-hoc analysis of combined subject group, between three time periods for the significant ANOVAs only

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **All Subjects**  **n = 14** | | | | |
| **Variables I to J** | | **Mean Difference (SE) (I-J)** | **p-value** | **95% CI** |
| **Residual Limb** | | | | |
| **Edema (cm)** | Pre-tx to Post-tx | 1.8 (.84) cm | .033 | [.17, 3.62] |
| Pre-tx to Maintenance | 2.8 (.84) cm | .002 | [1.09, 4.55] |
| Post-tx to Maintenance | .93 (.84) cm | .279 | [-.80, 2.66] |
| **Temperature with amputee limb cover (**°C) | Pre-tx to Post-tx | .32 (.23) °C | .168 | [-.14, .79] |
| Pre-tx to Maintenance | -.75 (.23) °C | .003 | [-1.22, -.28] |
| Post-tx to Maintenance | -1.07 (.23) °C | < .001 | [-1.54, -.61] |
| **Temperature without cover (**°C) | Pre-tx to Post-tx |  |  |  |
| Pre-tx to Maintenance |  |  |  |
| Post-tx to Maintenance |  |  |  |
| **PLP** | | | | |
| **Intensity (0-10)** | Pre-tx to Post-tx | -40.64 (10.43) | .001 | [-62.07,-19.21] |
| Pre-tx to Maintenance | -58.71 (10.43) | <.001 | [-80.14,-37.28] |
| Post-tx to Maintenance | -18.07 (10.43) | .095 | [-39.50,3.36] |
| **Frequency (0-6)** | Pre-tx to Post-tx | 3.07 (.47) | <.001 | [2.10,4.04] |
| Pre-tx to Maintenance | 2.79 (.47) | <.001 | [1.81, 3.76] |
| Post-tx to Maintenance | .29 (.47) | 0.551 | [-1.26,.69] |
| **Duration (0-6)** | Pre-tx to Post-tx |  |  |  |
| Pre-tx to Maintenance |  |  |  |
| Post-tx to Maintenance |  |  |  |
| **Bothersomeness (0-100)** | Pre-tx to Post-tx | -51.16 (10.07) | < .001 | [-71.86, -30.46] |
| Pre-tx to Maintenance | -68.57(10.07) | < .001 | [-89.27, -47.87] |
| Post-tx to Maintenance | -17.41(10.07) | .096 | [-38.11, 3.28] |

Table 4 continued.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ADL Interference** | | | | |
| **Self-care (0-10)** | Pre-tx to Post-tx | 2.27 (.50) | < .001 | [1.25, 3.29] |
| Pre-tx to Maintenance | 2.59 (.50) | < .001 | [1.57, 3.61] |
| Post-tx to Maintenance | .32 (.50) | .527 | [-.70, 1.34] |
| **Walking (0-10)** | Pre-tx to Post-tx | 2.86 (.76) | < .001 | [1.30, 4.41] |
| Pre-tx to Maintenance | 3.16 (.76) | < .001 | [1.60, 4.71] |
| Post-tx to Maintenance | .30 (.76) | .697 | [-1.26, 1.85] |
| **Car Transfer (0-100)** | Pre-tx to Post-tx | -29.57(9.31) | .004 | [-48.7, -10.44] |
| Pre-tx to Maintenance | -31.93(9.31) | .002 | [-51.06, -12.80] |
| Post-tx to Maintenance | -2.36 (9.31) | .802 | [-21.49, 16.77] |
| **Low Chair Transfer (0-100)** | Pre-tx to Post-tx | -27.00 (9.11) | .006 | [-45.73, -8.27] |
| Pre-tx to Maintenance | -25.64 (9.11) | .009 | [-44.37, -6.91] |
| Post-tx to Maintenance | 1.36 (9.11) | .883 | [-17.37, 20.09] |
| **Sleep (0-10)** | Pre-tx to Post-tx | 2.79 (.58) | < .001 | [1.61, 3.97] |
| Pre-tx to Maintenance | 3.79 (.58) | < .001 | [2.60, 4.97] |
| Post-tx to Maintenance | .99 (.58) | .096 | [-.19, 2.17] |
| **Well-being** | | | | |
| **Satisfaction (0-100)** | Pre-tx to Post-tx |  |  |  |
|
| Pre-tx to Maintenance |  |  |  |
| Post-tx to Maintenance |  |  |  |
| **Mood (0-10)** | Pre-tx to Post-tx | 2.04 (.50) | < .001 | [1.02, 3.06] |
| Pre-tx to Maintenance | 2.21 (.50) | < .001 | [1.18, 3.23] |
| Post-tx to Maintenance | .16 (.50) | .745 | [-.86, 1.19] |
| **QOL (0-100)** | Pre-tx to Post-tx | -21.71 (7.94) | .011 | [-38.04, -5.39] |
| Pre-tx to Maintenance | -30.89 (7.94) | < .001 | [-47.22, -14.57] |
| Post-tx to Maintenance | -9.18 (7.94) | .258 | [-25.51, 7.15] |

SE = standard error

CI = confidence interval

Edema: measured in centimeters (cm) around the widest part of the residual limb cm

Temp Amp Limb Cover: temperature of residual limb covered with amputee limb cover °C

Temp No Cover: temperature of residual limb with no cover °C

Intensity:Worst PLP daily, averaged over 4 weeks on a VAS in millimeters from 0 (no pain) to 10 (pain as bad as you can imagine)

Frequency: How often subjects experienced PLP over 4 weeks from 0 (never) to 6 (all the time)

Duration: How long each PLP episode lasts on a VAS in millimeters from 0 (I have none) to 6 (more than two days).

Bothersomeness:How bothersome PLP was over 4 weeks on a VAS in millimeters from 0 (extremely bothersome) to 100 (extremely mild).

Self-care: the amount that PLP interferes with self-care tasks daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Walking: the amount that PLP interferes with walking ability daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Car transfer: ability to get in and out of car in the past four weeks using VAS, measured in millimeters from 0 (Cannot) to 100 (No Problem)

Low-chair transfer: ability to sit down and get up from chair with a low seat (e.g. an easy chair or deep sofa) in the past four weeks using VAS, measured in millimeters from 0 (Cannot) to 100 (No Problem)

Sleep: the amount that PLP interferes with sleep daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Satisfaction: with how things have worked out since amputation, in the past four weeks using VAS, measured in millimeters from 0 (Extremely dissatisfied) to 100 (Extremely satisfied)

Mood : the amount that PLP interferes with mood daily, rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

QOL: Quality of Life in the past four weeks using VAS, measured in millimeters from 0 (Extremely dissatisfied) to 100 (Extremely satisfied).

p <0.050

Table 5.

LSD post-hoc analysis for separate acute and chronic groups, between three time periods for the significant ANOVAs only

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ACUTE** | | | | | **CHRONIC** | | |
| **n = 9** | | | | | **n = 5** | | |
| **Variable** | **I to J** | **Mean Difference (SE) (I-J)** | **p-value** | **95% CI** | **Mean Difference (SE) (I-J)** | **p-value** | **95% CI** |
|  |  |
| **Residual Limb** | | | | | | | |
| **Edema (cm)** | Pre-tx to Post-tx | 2.89 (1.00) cm | .011 | [.77, 5] |  |  |  |
| Pre-tx to Maintenance | 4.44 (1.00) cm | < .001 | [2.33, 6.56] |  |  |  |
| Post-tx to Maintenance | 1.56 (1.00) cm | .138 | [-.56, 3.67] |  |  |  |
| **Temperature with amputee limb cover (**°C) | Pre-tx to Post-tx | .17 (.34) °C | .632 | [-.56, .89] | .60 (.15) °C | .004 | [.25,.95] |
| Pre-tx to Maintenance | -.94 (.34) °C | .014 | [-1.67, -.22 | -.40 (.15) °C | .031 | [-.75, -.05] |
| Post-tx to Maintenance | -1.11 (.34) °C | .005 | [-1.83, -.39] | -1.00 (.15) °C | < .001 | [-1.35, -.65] |
| **Temperature without cover (**°C) | Pre-tx to Post-tx | .33 (.57) °C | .566 | [-.87,1.54] |  |  |  |
| Pre-tx to Maintenance | 1.56 (.57) °C | .015 | [.35,2.76] |  |  |  |
| Post-tx to Maintenance | 1.22 (.57) °C | .047 | [.02,2.43] |  |  |  |
| **PLP** | | | | | | | |
| **Intensity (0-10)** | Pre-tx to Post-tx |  |  |  | 2.28 (1.13) | .079 | [-.33, 4.9] |
| Pre-tx to Maintenance |  |  |  | 5.25 (1.13) | < .001 | [2.93, 8.16] |
| Post-tx to Maintenance |  |  |  | 1.92 (1.13) | .021 | [.64, 5.87] |
| **Frequency (0-6)** | Pre-tx to Post-tx | 3.11 (.63) | < .001 | [1.79, 4.44] | 3.00 (.80) | .005 | [1.17, 4.83] |
| Pre-tx to Maintenance | 2.78 (.63) | < .001 | [-17.16, 21.16] | 2.80 (.80) | .008 | [.97, 4.63] |
| Post-tx to Maintenance | -0.33 (.63) | .601 | [-7.94, 30.39] | -0.20 (.80) | .807 | [-2.03,1.63] |
| **Duration (0-6)** | Pre-tx to Post-tx |  |  |  |  |  |  |
| Pre-tx to Maintenance |  |  |  |  |  |  |
| Post-tx to Maintenance |  |  |  |  |  |  |
| **Bothersomeness (0-100)** | Pre-tx to Post-tx | -46.58 (14.67) | .006 | [-77.68, -15.47] | -59.40 (10.88) | < .001 | [-84.48, -34.32] |
| Pre-tx to Maintenance | -61.89 (14.67) | < .001 | [-92.99, -30.78] | -80.60 (10.88) | < .001 | [-105.68, -55.52] |
| Post-tx to Maintenance | -15.31 (14.67) | .312 | [-46.42, 15.79] | -21.20 (10.88) | .087 | [-46.28, 3.88] |

Table 5 continued.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ADL Interference** | | | | | | | | |
| **Self-care (0-10)** | Pre-tx to Post-tx | 2.94 (.61) | < .001 | [1.65, 4.24] |  | |  |  |
| Pre-tx to Maintenance | 3.13 (.61) | < .001 | [1.84, 4.43] |  | |  |  |
| Post-tx to Maintenance | .19 (.61) | .757 | [1.65, 4.24] |  | |  |  |
| **Walking (0-10)** | Pre-tx to Post-tx | 3.26 (.88) | .002 | [1.39, 5.12] |  | |  |  |
| Pre-tx to Maintenance | 3.35 (.88) | .002 | [1.49, 5.22] |  | |  |  |
| Post-tx to Maintenance | .10 (.88) | .912 | [-1.76, 1.96] |  | |  |  |
| **Car Transfer (0-100)** | Pre-tx to Post-tx | -35.11 (12.47) | .012 | [-61.54,-8.68] |  | |  |  |
| Pre-tx to Maintenance | -37.78 (12.47) | .008 | [-64.21,-11.34] |  | |  |  |
| Post-tx to Maintenance | -2.67 (12.47) | .833 | [-29.1,23.77] |  | |  |  |
| **Low Chair Transfer (0-100)** | Pre-tx to Post-tx |  |  |  |  | |  |  |
| Pre-tx to Maintenance |  |  |  |  | |  |  |
| Post-tx to Maintenance |  |  |  |  | |  |  |
| **Sleep (0-10)** | Pre-tx to Post-tx | 2.66 (.79) | .004 | [.99, 4.34] | 3.03 (.86) | | .008 | [1.05, 5] |
| Pre-tx to Maintenance | 3.60 (.79) | < .001 | [1.93, 5.28] | 4.12 (.86) | | <.001 | [2.14, 6.09] |
| Post-tx to Maintenance | .94 (.79) | .252 | [-.74, 2.61] | 1.09 (.86) | | .240 | [-.89, 3.07] |
| **Well-being** | | | | | | | | |
| **Satisfaction (0-100)** | Pre-tx to Post-tx |  |  |  | |  |  |  |
| Pre-tx to Maintenance |  |  |  | |  |  |  |
| Post-tx to Maintenance |  |  |  | |  |  |  |
| **Mood (0-10)** | Pre-tx to Post-tx | 2.49 (.70) | .003 | [1, 3.99] | |  |  |  |
| Pre-tx to Maintenance | 2.56 (.70) | .002 | [1.06, 4.05] | |  |  |  |
| Post-tx to Maintenance | .07 (.70) | .927 | [-1.43, 1.56] | |  |  |  |
| **QOL (0-100)** | Pre-tx to Post-tx | -27.33 (10.52) | .019 | [-49.64,-5.02] | |  |  |  |
| Pre-tx to Maintenance | -29.28 (10.52) | .013 | [-51.59,-6.97] | |  |  |  |
| Post-tx to Maintenance | -1.94 (10.52) | .856 | [-24.25,20.36] | |  |  |  |

Temp no cover acts as a control, to show no significant difference when no cover was worn regarding residual limb temperature

Edema: measured in centimeters (cm) around the widest part of the residual limb

Temp Amp Limb Cover: temperature of residual limb covered with amputee limb cover measured in degrees Celsius

Temp No Cover: temperature of residual limb with no cover, measured in degrees Celsius

Intensity:Worst PLP daily, averaged over 4 weeks on a VAS in millimeters from 0 (no pain) to 10 (pain as bad as you can imagine)

Frequency: How often subjects experienced PLP over 4 weeks from 0 (never) to 6 (all the time)

Duration: How long each PLP episode lasts on a VAS in millimeters from 0 (I have none) to 6 (more than two days).

Bothersomeness:How bothersome PLP was over 4 weeks on a VAS in millimeters from 0 (extremely bothersome) to 100 (extremely mild).

Self-care: the amount that PLP interferes with self-care tasks daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Walking: the amount that PLP interferes with walking ability daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Car transfer: ability to get in and out of car in the past four weeks using VAS, measured in millimeters from 0 (Cannot) to 100 (No Problem)

Low-chair transfer: ability to sit down and get up from chair with a low seat (e.g. an easy chair or deep sofa) in the past four weeks using VAS, measured in millimeters from 0 (Cannot) to 100 (No Problem)

Sleep: the amount that PLP interferes with sleep daily rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

Satisfaction: with how things have worked out since amputation, in the past four weeks using VAS, measured in millimeters from 0 (Extremely dissatisfied) to 100 (Extremely satisfied)

Mood : the amount that PLP interferes with mood daily, rated on a scale of 0 (Does not interfere) to 10 (Completely interferes)

QOL: Quality of Life in the past four weeks using VAS, measured in millimeters from 0 (Extremely dissatisfied) to 100 (Extremely satisfied).

p <0.050

Table 6.

Prosthetic fitting and functional use before and after intervention

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Group** | **Number** | **Time to prosthetic fitting** | **Prosthetic use before intervention** | **Prosthetic use after intervention** | **Disposition** |
| Acute | 1 | 8 weeks | 0 hours/day | 8 hours/day | Return to work FT |
| Acute | 2 | 8 weeks | 0 hours/day | 4 hours/day | Part time prosthesis use |
| Acute | 3 | Not fitted – dehiscence | 0 hours/day | 0 hours/day | Wheelchair level |
| Acute | 4 | 8 weeks | 0 hours/day | 10 hours/day | Return to work FT |
| Acute | 5 | 8 weeks | 0 hours/day | 4 hours/day | Part time prosthesis use |
| Acute | 6 | Not fitted – COPD complications | 0 hours/day | 0 hours/day | Wheelchair level |
| Acute | 7 | 8 weeks | 0 hours/day | 4 hours/day | Part time prosthesis use |
| Acute | 8 | 8 weeks | 0 hours/day | 8 hours/day | Part time prosthetic use |
| Acute | 9 | 8 weeks | 0 hours/day | 8 hours/day | Returned to work FT |
| Chronic | 10 | 12 weeks | 2 hours/day | 10 hours/day | Full time prosthetic use |
| Chronic | 11 | 12 weeks | 0 hours/day | 8 hours/day | No longer bedridden |
| Chronic | 12 | 12 weeks | 2 hours/day | 12 hours/day | Full time prosthetic use |
| Chronic | 13 | 12 weeks | 0 hours/day | 12 hours/day | Full time prosthetic use |
| Chronic | 14 | 12 weeks | 2 hours/day | 12 hours/day | Full time prosthetic use |

Table 7.

Comparison of residual limb temperatures with and without amputee limb cover (ALC)

N = 14

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 7. |  | **Residual limb temperature** | | |
| **Group** | **Number** | **Without ALC** | **With**  **ALC** | **Temp Diffs** |
| Acute | 1 | 33.5°C | 32.5°C | -1 °C |
| Acute | 2 | 33°C | 32°C | -1 °C |
| Acute | 3 | 33°C | 32°C | -1 °C |
| Acute | 4 | 31°C | 30°C | -1 °C |
| Acute | 5 | 33°C | 30.5°C | -2.5°C |
| Acute | 6 | 32°C | 31°C | -1 °C |
| Acute | 7 | 30°C | 30°C | -0 °C |
| Acute | 8 | 33°C | 32°C | -1 °C |
| Acute | 9 | 35°C | 34°C | -1 °C |
| Chronic | 10 | 31°C | 30°C | -1 °C |
| Chronic | 11 | 30.5°C | 30°C | -0.5 °C |
| Chronic | 12 | 34°C | 30°C | -4 °C |
| Chronic | 13 | 32.5°C | 32°C | -0.5°C |
| Chronic | 14 | 30°C | 29°C | -1 °C |
|  |  |  |  | Average:  -1.18 °C |