

Supplementary material

Table S1. Detailed overview of study adverse events (AEs). The parameters ‘pain’, ‘effusion’ and ‘stiffness’ as part of the inflammatory reaction triad were scored as separate adverse events. (MFAT, micro-fragmented adipose tissue; ITB, iliotibial band; OA, osteoarthritis)

| Category | AEs | Quantity (%) | Severity | Duration (days) |
|---------------------|--|----------------------------------|--|--------------------|
| Liposuction-related | Abdominal pain, swelling or numbness | 4 subjects (6.3%) | Moderate: 75% Severe: 25% | 33.5 ± 54.6 |
| MFAT-related | Inflammatory triad (at least 1 out of 3) | 72 knees (79%) | Mild: 16% Moderate: 52% Severe: 32% | 16.6 ± 13.5 |
| | Pain | 30 events | Mild: 10% Moderate: 60% Severe: 30% | 17.3 ± 12.9 |
| | Swelling | 33 events | Mild: 21% Moderate: 49% Severe: 30% | 16.8 ± 11.6 |
| | Stiffness | 35 events | Mild: 17% Moderate: 46% Severe: 37% | 15.7 ± 15.8 |
| Others | Total | 7 subjects (10.9%) | Mild: 23% Moderate: 69% Severe: 8% | 65.5 ± 103.5 |
| | Subjective Knee instability | 3 events | Mild: 67% Moderate: 33% | 14.0 ± 0.0 |
| | Tendinopathy (ITB, patella) | 3 events | Moderate: 100% | 162,7 ± 172.6 |
| | Aching calve muscles | 2 events | Moderate: 100% | 14.0 ± 0.0 |
| | OA worsening | 1 event | Severe: 100% | 206.0 ± 0.0 |
| | Stroke | 2 events | Moderate: 100% | 25.0 ± 0.0 |
| | Gallstones | 1 event | Mild: 100% | 21.0 ± 0.0 |
| Total AEs | / | 119 events in 53 subjects | Mild: 16% Moderate: 45% Severe: 39% | 25.0 ± 42.0 |

Table S2. NRS pain, UCLA and EQ-5D index outcomes after MFAT administration. The UCLA and EQ-5D were assessed separately for the unilateral and bilateral injected subjects.

| Tx | NRS pain index knee (n=64) | P-value (baseline – Tx) | | |
|-----------|---------------------------------------|------------------------------------|-----------------------------------|------------------------------------|
| Baseline | 5.5 ± 2.2 | / | | |
| 1 month | 4.8 ± 2.2 | 0.0073* | | |
| 3 month | 3.8 ± 2.4 | <0.0001* | | |
| 6 month | 4.0 ± 2.7 | <0.0001* | | |
| 12 month | 4.2 ± 2.5 | 0.0002* | | |
| Tx | UCLA Unilateral (n=37) | P-value (baseline – Tx) | UCLA Bilateral (n=27) | P-value (baseline – Tx) |
| Baseline | 6.2 ± 2.2 | / | 5.8 ± 2.0 | / |
| 1 month | / | / | / | / |
| 3 month | 6.00 ± 2.1 | n.s. | 6.1 ± 2.2 | n.s. |
| 6 month | 6.1 ± 2.1 | n.s. | 6.4 ± 2.2 | n.s. |
| 12 month | 6.2 ± 2.1 | n.s. | 6.5 ± 2.0 | n.s. |
| Tx | EQ-5D Unilateral (n=37) | P-value (baseline – Tx) | EQ-5D Bilateral (n=27) | P-value (baseline – Tx) |
| Baseline | 0.8099 ± 0.0463 | / | 0.8064 ± 0.0609 | / |
| 1 month | / | / | / | / |
| 3 month | 0.8429 ± 0.0698 | 0.0154* | 0.848 ± 0.0924 | 0.0359* |
| 6 month | 0.8673 ± 0.0963 | 0.0007* | 0.8509 ± 0.0926 | 0.0289* |
| 12 month | 0.8507 ± 0.084 | 0.0023* | 0.8359 ± 0.082 | n.s. |