**Table A. Reasons for excluding 60 patients after enrollment and before randomisation.**

| Reasons for exclusion | Numbers |
|---|---|
| **Not meeting diagnosis based on ICHD-3beta** | 0 |
| **Not meeting inclusion criteria** | |
| Aged between 15 and 65 years | 5 |
| With history of migraine without aura for more than 12 months | 0 |
| Initial onset of migraine before the age of 50 years | 0 |
| Had ≥ 2 and ≤ 8 migraine attacks during the baseline phase | 13 |
| Were acupuncture naive | 6 |
| Able to sign the informed consent | 0 |
| **Meeting exclusion criteria** | |
| All other types of primary and secondary headaches | 7 |
| Had history of a clinically significant disorder | 5 |
| Pregnant women, women in lactation, and those planning to become pregnant | 2 |
| Participation in other clinical trials | 0 |
| Illiterate, or patients unable to read and understand scales | 0 |
| Non-compliance, especially significant missing entries in the headache diaries during the baseline phase. | 10 |
| **Other exclusion reasons** | |
| Withdrew consent | 12 |

**Table B. Baseline characteristics of the full analysis set population. Values are mean (SD) unless stated otherwise.**

| Characteristics | Manual group (n=58) | Sham group (n=60) | Usual group (n=29) |
|---|---|---|---|
| Age, years | 36.2 (12.0) | 36.0 (10.9) | 37.2 (11.9) |
| Women, No (%) | 45 (77.6) | 50 (83.3) | 25 (86.2) |
| BMI, kg/m², median (IQR) | 20.4 (19.5, 23.1) | 22.0 (20.3, 23.4) | 20.5 (19.5, 22.3) |
| Disease duration, years, mean (IQR) | 10.0 (5.0, 16.0) | 10.0 (6.0, 14.0) | 16.0 (8.0, 20.0) |
| Accompanying symptoms | | | |
| Nausea and vomiting, No (%) | 51 (87.9) | 51 (85.0) | 24 (82.8) |
| Photophobia and phonophobia, No (%) | 50 (86.2) | 52 (86.7) | 23 (79.3) |
| Patient personality | | | |
| Neuroticism | 31.6 (7.2) | 31.9 (6.6) | 31.0 (7.1) |
| Extraversion | 37.5 (7.1) | 38.0 (6.6) | 37.5 (6.0) |
| Openness | 37.7 (5.0) | 37.4 (4.8) | 36.0 (2.8) |
| Agreeableness | 43.3 (4.7) | 43.1 (4.9) | 44.2 (4.2) |
| Conscientiousness | 41.3 (5.7) | 41.8 (6.2) | 41.8 (5.3) |
| Chronic migraine, No (%) | 1 (1.7) | 2 (3.3) | 0 (0) |
| Patient expectation for acupuncture | 11.0 (3.7) | 11.1 (3.5) | NA |
| Days with migraine | 5.7 (2.7) | 6.3 (3.8) | 5.6 (2.8) |
| Number of migraine attacks | 3.7 (1.4) | 4.1 (2.6) | 3.7 (1.3) |
| Mean VAS | 5.1 (1.3) | 5.3 (1.3) | 5.2 (1.9) |
| MSQ | | | |
| Role restrictive Subscale | 55.4 (17.9) | 54.4 (15.5) | 56.6 (15.0) |
| Role preventive Subscale | 60.8 (23.5) | 59.9 (19.5) | 64.1 (19.3) |
| Emotional Subscale | 62.0 (23.5) | 65.3 (20.3) | 63.0 (21.9) |
| PSQI | 5.7 (2.8) | 5.6 (2.7) | 5.4 (3.5) |
| MIDAS, median (IQR) | 27.0 (12.0, 46.0) | 33.5 (15.5, 56.5) | 26.0 (14.0, 41.0) |
| Dosed of used medicine, median (IQR) | 0.0 (0.0, 2.0) | 0.0 (0.0, 3.5) | 0.0 (0.0, 2.0) |
| BDI- II, median (IQR) | 6.0 (3.0, 12.0) | 7.0 (2.5, 14.0) | 7.0 (1.0, 11.0) |
| BAI, median (IQR) | 10.0 (4.0, 15.0) | 7.5 (4.0, 14.0) | 7.0 (4.0, 9.0) |

BAI=Beck Anxiety Inventory; BDI-II=Beck Depression Inventory II; BMI=Body Mass Index; IQR=Interquartile range; MIDAS=Migraine Disability Assessment Scores; MSQ=Migraine-Specific Quality-of-Life Questionnaire; NA=Not Applicable; PSQI=Pittsburgh Sleep Quality Index; VAS=Visual Analog Scale.

**Table C. Primary outcome measurements of the per-protocol set population**

| Time point | Manual (n=57) | Sham (n=59) | Usual (n=28) | *P* * value | Pairwise Comparison | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Manual vs Sham | *P* * value | Manual vs usual | *P* * value | Sham vs usual | *P* * value |
| Change from baseline in the mean days with migraine | | | | | | | | | | |
| Weeks 1-4 | -2.2(2.0) | -1.6(3.1) | -0.6(2.9) | 0.004 | -0.9(-1.8, 0.0) | 0.058 | -1.5(-2.6, -0.4) | 0.005 | -0.6(-1.7, 0.5) | 0.608 |
| Weeks 5-8 | -3.1(2.6) | -2.8(3.6) | -1.3(2.6) | 0.004 | -0.7(-1.6, 0.2) | 0.209 | -1.6(-2.8, -0.5) | 0.003 | -0.9(-2.1, 0.2) | 0.171 |
| Weeks 9-12 | -3.5(2.6) | -2.9(3.8) | -1.3(2.8) | <.001 | -1.0(-2.0, 0.1) | 0.084 | -2.1(-3.5, -0.8) | <.001 | -1.2(-2.5, 0.1) | 0.100 |
| Weeks 13-16 | -3.5(2.6) | -2.4(3.4) | -0.9(2.4) | <.001 | -1.4(-2.4, -0.3) | 0.005 | -2.5(-3.8, -1.2) | <.001 | -1.1(-2.4, 0.2) | 0.124 |
| Weeks 17-20 | -4.0(3.0) | -2.2(3.2) | -1.4(2.7) | <.001 | -2.1(-3.0, -1.2) | <.001 | -2.5(-3.6, -1.4) | <.001 | -0.4(-1.5, 0.7) | 0.481 |
| Change from baseline in the mean number of migraine attacks | | | | | | | | | | |
| Weeks 1-4 | -1.1(1.3) | -1.0(2.5) | -0.3(1.5) | 0.046 | -0.3(-0.9, 0.3) | 0.670 | -0.8(-1.6, 0.0) | 0.040 | -0.5(-1.3, 0.3) | 0.393 |
| Weeks 5-8 | -1.8 (1.4) | -1.8(2.5) | -0.7(1.3) | 0.002 | -0.3(-0.9, 0.3) | 0.552 | -1.0(-1.7, -0.3) | 0.001 | -0.7(-1.4, 0.0) | 0.037 |
| Weeks 9-12 | -2.0(1.3) | -1.9(2.7) | -0.4(1.3) | <.001 | -0.4(-1.0, 0.2) | 0.430 | -1.5(-2.3, -0.8) | <.001 | -1.2(-1.9, -0.4) | 0.001 |
| Weeks 13-16 | -2.1(1.5) | -1.8(2.7) | -0.7(1.3) | <.001 | -0.6(-1.2, 0.1) | 0.098 | -1.3(-2.1, -0.6) | <.001 | -0.8(-1.5, 0.0) | 0.050 |
| Weeks 17-20 | -2.4(1.6) | -1.6(2.5) | -0.5(1.3) | <.001 | -1.0(-1.5, -0.5) | <.001 | -1.8(-2.5, -1.2) | <.001 | -0.8(-1.5, -0.2) | 0.009 |

Data are summarized as mean (SD). Differences are presented as mean (95% CI).

* *P* values, differences and confidence intervals were based on analysis of covariance (ANCOVA) adjusted for days with migraine (or number of migraine attacks) at baseline. According to the fixed sequence procedure planned for primary analyses, the pairwise comparisons at weeks 17-20 were made at the nominal α level without further adjustment. For visits other than weeks 17-20, multiple pairwise comparisons were adjusted by Bonferroni approach.

## Table D. Primary Outcome Measurements During the Whole Study Period

| Time point | Pairwise Comparison | | | | | |
|---|---|---|---|---|---|---|
| | **Manual vs Sham** | ***P* * value** | **Manual vs usual** | ***P* * value** | **Sham vs usual** | ***P* * value** |
| **Full Analysis Set (Manual: n=58; Sham: n=60; Usual: n=29)** | | | | | | |
| **Change from baseline in the mean days with migraine** | | | | | | |
| Weeks 1-4 | -0.9 (-1.9, 0.1) | 0.072 | -1.5 (-2.7, -0.3) | 0.010 | -0.6 (-1.8, 0.6) | 0.776 |
| Weeks 5-8 | -0.7 (-1.6, 0.3) | 0.308 | -1.7 (-2.9, -0.5) | 0.002 | -1.0 (-2.2, 0.2) | 0.111 |
| Weeks 9-12 | -0.9 (-1.9, 0.0) | 0.061 | -2.1 (-3.3, -0.9) | <.001 | -1.2 (-2.4, 0.0) | 0.051 |
| Weeks 13-16 | -1.4 (-2.4, -0.5) | 0.001 | -2.5 (-3.7, -1.3) | <.001 | -1.0 (-2.2, 0.2) | 0.114 |
| Weeks 17-20 | -2.1 (-2.9, -1.3) | <.001 | -2.4 (-3.4, -1.5) | <.001 | -0.4 (-1.3, 0.6) | 0.458 |
| **Change from baseline in the mean number of migraine attacks** | | | | | | |
| Weeks 1-4 | -0.4 (-0.9, 0.2) | 0.427 | -0.8 (-1.7, 0.0) | 0.055 | -0.5 (-1.3, 0.4) | 0.508 |
| Weeks 5-8 | -0.3 (-0.9, 0.3) | 0.526 | -1.1 (-1.9, -0.2) | 0.010 | -0.7 (-1.6, 0.1) | 0.128 |
| Weeks 9-12 | -0.4 (-1.0, 0.2) | 0.295 | -1.5 (-2.4, -0.7) | <.001 | -1.1 (-2.0, -0.3) | 0.005 |
| Weeks 13-16 | -0.6 (-1.1, 0.0) | 0.067 | -1.3 (-2.2, -0.5) | <.001 | -0.8 (-1.6, 0.1) | 0.081 |
| Weeks 17-20 | -1.0 (-1.5, -0.5) | <.001 | -1.8 (-2.5, -1.1) | <.001 | -0.8 (-1.5, -0.1) | 0.020 |

Differences are presented as mean (95% CI).

* P values, differences and confidence intervals are based on linear mixed effects model. The fixed effects include: days with migraine (or number of migraine attacks) at baseline, study visit, treatment group, and the interaction term of treatment group by study visit. The random effects include: subject, site, and acupuncturist.

According to the fixed sequence procedure (hierarchical gatekeeping strategy) planned for primary analyses, the pairwise comparisons at week 17-20 are made at the nominal α level without further adjustment.

For visits other than week 17-20, multiple pairwise comparisons are adjusted by Bonferroni approach.

**Table E. Assessment of Blinding of The Full Analysis Set Population.**

| | **Manual acupuncture (n=58)** | **Sham acupuncture (n=60)** | ***P* value** * |
|---|---|---|---|
| Blinding for treatment | | | 0.891 |
| Penetrating acupuncture, No. (%) | 46 (79.3) | 45 (75.0) | |
| Non-penetrating acupuncture, No. (%) | 3 (5.2) | 4 (6.7) | |
| Don't know, No. (%) | 9 (15.5) | 11 (18.3) | |

Data are summarized as n (%).

* For continuous variables, unpaired t-test is used for the comparison between treatment groups. For categorical variables, $\chi^2$ test or Fisher's exact test is used for the comparison between treatment groups.

**Table F. Adverse events related to acupuncture of the Safety population**

| | Manual acupuncture (n=59) | Sham acupuncture (n=60) | *P* value * |
|---|---|---|---|
| Overall, No. (%) | 5 (8.5) | 0 (0.0) | 0.027 |
| Severe adverse events, No. (%) | 0 (0.0) | 0 (0.0) | >.999 |
| Dermorrhagia, No. (%) | 2 (3.4) | 0 (0.0) | 0.244 |
| Sharp pain, No. (%) | 1 (1.7) | 0 (0.0) | 0.496 |
| Palpitation, No. (%) | 2 (3.4) | 0 (0.0) | 0.244 |

* $\chi^2$ test or Fisher's exact test is used for the comparison between treatment groups.

Adverse events are analyzed in all participants who received treatment. Adverse events are counted by type rather than frequency in the same participant. An adverse event with multiple occurrences in a single participant was defined as 1 adverse event.