

Supplementary Online Content

The Combined Randomised and Observational Study of Surgery for Fractures in the Distal Radius in the Elderly (CROSSFIRE) Study Group. Plating vs closed reduction for fractures in the distal radius in older patients: a secondary analysis of a randomized clinical trial. *JAMA Surg*. Published online April 27, 2022. doi:10.1001/jamasurg.2022.0809

eTable 1. Baseline Characteristics of Retained Participants vs Those Lost to Follow-up

eTable 2. PRWE Domain Scores

eTable 3. Treatment Success as a Binary Variable

eTable 4. Regression Analysis of Primary Outcome, Adjusting for Age, Sex, Fracture Type, Patient Preference, and Baseline Quality of Life (EQ-VAS Score)

eTable 5. Observational Group

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Baseline Characteristics of Retained Participants vs Those Lost to Follow-up

| Baseline measure | | Participants (n=151) | Those LTFU (n=15) | Significance (p-value) |
|----------------------------|---------------------------------|-------------------------|----------------------|---------------------------|
| Age (years), mean (range) | | 70.8 (60 – 89) | 71.6 (62 – 90) | 0.69 |
| Female n (%) | | 131 (86.8%) | 14 (93.3%) | 0.46 |
| Fracture type n (%) | 23A | 96 (64%) | 8 (53.3%) | 0.41 |
| | 23C | 54 (36%) | 7 (46.7%) | |
| Co-morbidities, n (%) | Diabetes? (Yes) | 17 (11.3%) | 2 (13.3%) | 0.81 |
| | Smoker? (Yes) | 2 (1.3%) | 2 (13.3%) | 0.003 |
| | Glucocorticoid treatment? (Yes) | 17 (11.3%) | 3 (20%) | 0.32 |
| | Osteoporosis treatment? (Yes) | 17 (11.3%) | 3 (20%) | 0.32 |
| Treatment preference n (%) | Surgery | 14 (9.4%) | 1 (6.7%) | 0.91 |
| | Closed reduction | 44 (29.5%) | 5 (33.3%) | |
| | No preference | 91 (61.1%) | 9 (60%) | |
| EQ-5D-5L, mean (SD) | Index | 0.87 (0.17) | 0.87 (0.17) | 0.99 |
| | EQ-VAS | 82.8 (15.8) | 77.5 (17.5) | 0.23 |

LTFU = loss to follow-up

eTable 2. PRWE Domain Scores

| PRWE domain scores (points), MD | CR | VLP fixation | <i>P</i> value |
|------------------------------------|------|--------------|----------------|
| Pain domain | 7.9 | 7.9 | .99 |
| Function domain | 7.9 | 5.7 | .21 |
| PRWE total | 15.8 | 13.6 | .50 |

eTable 3. Treatment Success as a Binary Variable

| Overall treatment success n(%) | 3/12 | | | 12/12 | | | 24/12 | | |
|---|-----------|------------|---------------|-----------|------------|---------------|-----------|------------|------------------------------|
| | CR (n=80) | VLP (n=75) | RR | CR (n=81) | VLP (n=79) | RR | CR (n=74) | VLP (n=72) | RR |
| Successful and very successful | 54 (67%) | 61 (81%) | 1.20 (1.00 to | 57 (70%) | 70 (89%) | 1.26 (1.07 to | 60 (81%) | 69 (96%) | 1.18 (1.05 to 1.33), p=0.006 |
| Neutral, unsuccessful, or very unsuccessful | 26 (33%) | 14 (19%) | 1.45), p=0.05 | 24 (30%) | 9 (11%) | 1.48), p<0.01 | 14 (19%) | 3 (4%) | |

eTable 4. Regression Analysis of Primary Outcome, Adjusting for Age, Sex, Fracture Type, Patient Preference, and Baseline Quality of Life (EQ-VAS Score)

| Mean PRWE score | 12 months | | | 24 months | | |
|---------------------|--------------|---------------------------|------------------------------|--------------|---------------------------|------------------------------|
| | CR (n=81) | VLP fixation (n=79) | MD (95%CI, p-value) | CR (n=74) | VLP fixation (n=74) | MD (95%CI, p-value) |
| Unadjusted analysis | 21.5 | 19.8 | 1.7 (-5.4 to 8.8), p=0.63 | 15.8 | 13.6 | 2.1 (-4.2 to 8.5) p=0.50 |
| Adjusted analysis | 15.3 | 13.1 | 2.2 (4.9 to 9.3), p=0.55 | 13.1 | 11.2 | 1.9 (-4.7 to 8.5), p=0.58 |

eTable 5. Observational Group

5.1 Outcomes at 24 months for the observational group

| Outcome | | Observational group | | |
|---|---------------------|---------------------|---------------------|-----------------------------|
| | | CR (n=98) | VLP fixation (n=33) | Mean difference (95%CI) |
| PRWE | | 6.8 (13.2) | 4.9 (10.3) | 1.9 (-3.3 to 7.1), p=0.47 |
| EQ-5D-5L, mean (SD) | Index | 0.85 (0.17) | 0.83 (0.22) | 0.02 (-0.05 to 0.1), p=0.55 |
| | EQ-VAS | 78.6 (21.2) | 73.8 (23.8) | 4.8 (-4.4 to 14.0), p=0.30 |
| Pain on NRS (points on 0-10 scale) | | 0.3 (1.2) | 0.1 (0.6) | 0.2 (-0.2 to 0.6) |
| Patient-reported treatment success, n(%) | Very successful | 41 (48%) | 20 (65%) | p=0.43 |
| | Successful | 32 (38%) | 10 (32%) | |
| | Neutral | 9 (11%) | 1 (3%) | |
| | Unsuccessful | 1 (1%) | 0 (0%) | |
| | Very unsuccessful | 2 (2%) | 0 (0%) | |
| Patient-reported bother with appearance, n(%) | Not at all | 72 (85%) | 28 (90%) | p=0.86 |
| | Bothered a little | 12 (14%) | 3 (10%) | |
| | Bothered moderately | 0 (0%) | 0 (0%) | |
| | Very bothered | 1 (1%) | 0 (0%) | |
| | Extremely bothered | 0 (0%) | 0 (0%) | |

5.2 Complications for observational group

| Complications; frequency (incidence) | Observational group | | | | | |
|--|---------------------|---------------------------|-------------------------------------|---------------------------|---------------------------|-------------------------------------|
| | 12 months | | | 24 months | | |
| | CR (n=86) | VLP fixation (n=29) | Risk ratio ^a (95% CI) | CR (n=87) | VLP fixation (n=31) | Risk ratio ^a (95% CI) |
| Any complications | 9 (9%) | 5 (15%) | 1.69 (0.60 to 4.62) | 9 (10.3%) ^b | 5 (16.1%) | 1.56 (0.57 to 4.30) |
| Deep infection | 0 (0%) | 1 (3%) | N/A | 0 (0%) | 1 (3.2%) | N/A |
| Reoperation | 2 (2%) | 1 (3%) | 1.50 (0.14 to 16.01) | 2 (2.3%) | 1 (3.2%) | 1.40 (0.13 to 14.94) |
| Neuropathy | 5 (5%) | 2 (6%) | 1.20 (0.24 to 5.90) | 4 (4.6%) | 2 (6.5%) | 1.40 (0.27 to 7.29) |
| Tendon irritation requiring treatment | 0 (0%) | 1 (3%) | N/A | 0 (0%) | 1 (3.2%) | N/A |
| Tendon rupture | 0 (0%) | 0 (0%) | N/A | 0 (0%) | 0 (0%) | N/A |
| Fracture non-union at 6 months | 1 (1%) | 0 (0%) | N/A | 1 (1.2%) | 0 (0%) | N/A |
| Implant failure | 0 (0%) | 0 (0%) | N/A | 0 (0%) | 0 (0%) | N/A |
| Complex regional pain syndrome | 0 (0%) | 0 (0%) | N/A | 0 (0%) | 0 (0%) | N/A |
| Death | 1 (1%) | 0 (0%) | N/A | 2 (2.3%) ^b | 0 (0%) | N/A |

^a Risk ratios are expressed as VLP fixation versus CR and 24 months

^b New complication occurred between 12 and 24 months.