

Table S1. The preoperative carpal tunnel pressure (CTP) and nerve conduction study (NCS) data in different severity grades.

| NCS grade | Preoperative CTP (mmHg) | SNAP (μ V) | CMAP (mV) |
|----------------|-------------------------|-------------------------------|------------------------------|
| Total | 40.0 (28.0, 58.0) | 10.4 (6.5, 16.9) | 5.9 (3.5, 7.6) |
| Mild (n=11) | 29.0 (22.0, 51.0) | 16.8 (10.3, 24.3) | 8.3 (6.8, 8.7) |
| Moderate (n=6) | 51.0 (36.0, 60.0) | 12.0 (8.0, 17.0) [#] | 8.0 (5.9, 10.4) [#] |
| Severe (n=20) | 40.0 (33.0, 58.0) | 6.7 (4.0, 10.7) [#] | 3.8 (2.8, 5.3) [#] |
| p-value | 0.295 | 0.007 | <0.001 |

Values are presented as the median (*interquartile range*).

p-value, based on the Kruskal-Wallis test for the global test of difference among the three groups.

[#]Significant between-group differences in moderate and severe groups using the the Mann-Whitney U test as the post hoc test.

Table S2. The correlation between the cross-sectional area (CSA) of median nerve and the Boston Carpal Tunnel Questionnaire (BCTQ) scores before and after percutaneous ultrasound-guided carpal tunnel release (UCTR)

| | | BCTQ | | | | | | | |
|-------------------------|--------------|--------------|---------|---------------|---------|----------|---------|----------|---------|
| The CSA of median nerve | | Preoperative | | Postoperative | | | | | |
| | | | | 1 Month | | 3 Month | | 12 Month | |
| | | <i>r</i> | p-value | <i>r</i> | p-value | <i>r</i> | p-value | <i>r</i> | p-value |
| | Preoperative | 0.350 | 0.034 | | | | | | |
| | 1 Month | | | 0.042 | 0.804 | | | | |
| | 3 Month | | | | | -0.171 | 0.312 | | |
| | 12 Month | | | | | | | 0.246 | 0.142 |

Spearman rank correlation analysis was used to determine the correlation.