**Supplement: Additional Analysis**

Additional sensitivity analyses were performed, and results were presented below. Overall, all sensitivity analysis results are consistent with main results presented in the main text of our manuscript.

**Sensitivity analysis for VAS**

1. Added survival days as an additional term of linear mixed effects (LME) model.

Likelihood ratio test to compare model with the term of survival days compared to the model without term: *P* = 0.673, showing no difference between model fitness between these two models. Detailed pairwise comparison results are:

| Visit | Systemic analgesic therapy alone (Control)  | Neurolytic splanchnic nerve block (Neurolysis)  | contrastControl - Neurolysisestimate lower.CL upper.CL | *P* | Adj. *P* |
| --- | --- | --- | --- | --- | --- |
| 1 | 3.4 [3.2, 3.7]  | 2.8 [2.5, 3.1]  | 0.7  | 0.3  | 1.0  | <0.001  | <0.001  |
| 2 | 3.4 [3.2, 3.7]  | 2.9 [2.6, 3.1]  | 0.6  | 0.3  | 0.9  | <0.001  | <0.001  |
| 3  | 3.4 [3.2, 3.7]  | 3 [2.7, 3.2]  | 0.5  | 0.2  | 0.7  | 0.002  | 0.016  |
| 4  | 3.4 [3.2, 3.7]  | 3.1 [2.8, 3.3]  | 0.4  | 0.1  | 0.7  | 0.015  | 0.120  |
| 5  | 3.4 [3.2, 3.7]  | 3.2 [2.9, 3.5]  | 0.3  | 0.0  | 0.6  | 0.097  | 0.776  |
| 6  | 3.5 [3.2, 3.7]  | 3.3 [3, 3.6]  | 0.2  | -0.2  | 0.5  | 0.351  | >0.999  |
| 7  | 3.5 [3.2, 3.7]  | 3.4 [3.1, 3.7]  | 0.1  | -0.3  | 0.5  | 0.737  | >0.999  |
| 8  | 3.5 [3.2, 3.8]  | 3.5 [3.1, 3.9]  | 0.0  | -0.5  | 0.4  | 0.897  | >0.999 |

2. Added stage as an additional term of linear mixed effects (LME) model.

Likelihood ratio test to compare model with the term of survival days compared to the model without term: *P* = 0.470, showing no difference between model fitness between these two models. Detailed pairwise comparison results are:

| Visit | Systemic analgesic therapy alone (Control)  | Neurolytic splanchnic nerve block (Neurolysis)  | contrastControl - Neurolysisestimate lower.CL upper.CL | *P* | Adj. *P* |
| --- | --- | --- | --- | --- | --- |
| 1 | 3.5 [3.2, 3.7]  | 2.8 [2.5, 3.1]  | 0.7  | 0.3  | 1.0  | <0.001  | <0.001  |
| 2 | 3.5 [3.2, 3.7]  | 2.9 [2.6, 3.1]  | 0.7  | 0.3  | 1.0  | <0.001 | <0.001  |
| 3  | 3.5 [3.2, 3.7]  | 3 [2.8, 3.2]  | 0.6  | 0.3  | 0.9  | <0.001  | <0.001  |
| 4  | 3.5 [3.2, 3.7]  | 3.1 [2.8, 3.3]  | 0.5  | 0.2  | 0.8  | 0.001  | 0.008  |
| 5  | 3.5 [3.2, 3.7]  | 3.2 [2.9, 3.5]  | 0.4  | 0.1  | 0.7  | 0.013  | 0.104  |
| 6  | 3.5 [3.2, 3.7]  | 3.3 [3, 3.6]  | 0.3  | 0.0  | 0.6  | 0.086  | 0.688  |
| 7  | 3.5 [3.2, 3.8]  | 3.4 [3.1, 3.7]  | 0.2  | -0.2  | 0.5  | 0.318  | >0.999  |
| 8  | 3.5 [3.2, 3.8]  | 3.5 [3.1, 3.9]  | 0.1  | -0.3  | 0.5  | 0.683  | >0.999  |

3. Single imputation using LOCF method

Results from the LOCF imputed data showed statistically significant difference between the two study groups across all time points [MD = 0.49, 95% CI = 0.15 - 0.84, *P* = 0.006]. We also add the clinical stage into the LOCF model and used likelihood test to assess the model fitness between the two models, LR test *P* = 0.405 suggested that clinical stage shall not be included in final LOCF model. Detailed pairwise comparison results are:

| Visit | Systemic analgesic therapy alone (Control)  | Neurolytic splanchnic nerve block (Neurolysis)  | contrastControl - Neurolysisestimate lower.CL upper.CL | *P* | Adj. *P* |
| --- | --- | --- | --- | --- | --- |
| 1 | 3.5 [3.2, 3.8]  | 2.8 [2.5, 3.1]  | 0.7  | 0.3  | 1.0  | <0.001  | <0.001  |
| 2 | 3.5 [3.2, 3.8]  | 2.9 [2.6, 3.2]  | 0.6  | 0.3  | 1.0  | 0.001  | 0.008  |
| 3  | 3.5 [3.2, 3.8]  | 2.9 [2.6, 3.2]  | 0.6  | 0.2  | 1.0  | 0.002  | 0.016  |
| 4  | 3.5 [3.2, 3.8]  | 3.0 [2.7, 3.2]  | 0.5  | 0.2  | 0.9  | 0.003  | 0.024  |
| 5  | 3.5 [3.2, 3.8]  | 3.0 [2.7, 3.3]  | 0.5  | 0.1  | 0.8  | 0.008  | 0.064  |
| 6  | 3.5 [3.2, 3.8]  | 3.0 [2.8, 3.3]  | 0.4  | 0.1  | 0.8  | 0.017  | 0.136  |
| 7  | 3.5 [3.2, 3.8]  | 3.1 [2.8, 3.4]  | 0.4  | 0.02  | 0.8  | 0.036  | 0.288  |
| 8  | 3.5 [3.2, 3.8]  | 3.1 [2.8, 3.4]  | 0.3  | -0.03  | 0.7  | 0.075  | 0.600 |

**Sensitivity analysis for MEQ**

1.Added survival days as an additional term of linear mixed effects (LME) model.

Likelihood ratio test to compare model with the term of survival days compared to the model without term: *P* = 0.796, showing no difference between model fitness between these two models. Detailed pairwise comparison results are:

| Visit | Systemic analgesic therapy alone (Control)  | Neurolytic splanchnic nerve block (Neurolysis)  | contrastControl - Neurolysisestimate lower.CL upper.CL | *P* | Adj. *P* |
| --- | --- | --- | --- | --- | --- |
| 1 | 163.8 [150.4, 177.2]  | 67.8 [52.8, 82.7]  | 96.0  | 67.3  | 124.8  | <0.001  | <0.001  |
| 2 | 172.1 [159, 185.2]  | 88.5 [74.0, 103.1]  | 83.5  | 55.6  | 111.4  | <0.001  | <0.001  |
| 3  | 180.3 [167.4, 193.3]  | 109.3 [94.9, 123.7]  | 71.0  | 43.4  | 98.7  | <0.001  | <0.001  |
| 4  | 188.6 [175.6, 201.6]  | 130.1 [115.6, 144.6]  | 58.5  | 30.5  | 86.5  | <0.001  | <0.001  |
| 5  | 196.9 [183.7, 210.0]  | 150.9 [136.0, 165.8]  | 46.0  | 17.0  | 75.0  | <0.001  | <0.001  |
| 6  | 205.1 [191.6, 218.7]  | 171.7 [156.2, 187.1]  | 33.4  | 2.9  | 64.0  | 0.018  | 0.144  |
| 7  | 213.4 [199.3, 227.5]  | 192.5 [176.2, 208.7]  | 20.9  | -11.7  | 53.5  | 0.667  | >0.999  |
| 8  | 221.6 [206.9, 236.4]  | 213.2 [196.1, 230.4]  | 8.4  | -26.6  | 43.4  | 1.000  | >0.999 |

2. Added stage as an additional term of linear mixed effects (LME) model.

Likelihood ratio test to compare model with the term of survival days compared to the model without term: *P* = 0.098, showing no difference between model fitness between these two models. Detailed pairwise comparison results are:

| Visit | Systemic analgesic therapy alone (Control)  | Neurolytic splanchnic nerve block (Neurolysis)  | contrastControl - Neurolysisestimate lower.CL upper.CL | *P* | Adj. *P* |
| --- | --- | --- | --- | --- | --- |
| 1 | 166.7 [153.9, 179.5]  | 69.7 [56.4, 83.0]  | 97.0  | 68.7  | 125.3  | <0.001  | <0.001  |
| 2 | 175.0 [162.4, 187.5]  | 90.4 [77.4, 103.3]  | 84.6  | 57.1  | 112.0  | <0.001  | <0.001  |
| 3  | 183.2 [170.8, 195.6]  | 111.0 [98.1, 123.9]  | 72.1  | 44.9  | 99.4  | <0.001 | <0.001  |
| 4  | 191.4 [178.9, 203.9]  | 131.7 [118.5, 144.8]  | 59.7  | 32.1  | 87.3  | <0.001 | <0.001  |
| 5  | 199.6 [186.8, 212.4]  | 152.3 [138.7, 166.0]  | 47.3  | 18.6  | 75.9  | <0.001 | <0.001  |
| 6  | 207.9 [194.6, 221.1]  | 173.0 [158.7, 187.3]  | 34.9  | 4.6  | 65.1  | 0.009  | 0.072  |
| 7  | 216.1 [202.2, 229.9]  | 193.7 [178.4, 208.9]  | 22.4  | -9.9  | 54.7  | 0.535  | >0.999  |
| 8  | 224.3 [209.7, 238.9]  | 214.3 [198.0, 230.7]  | 10.0  | -24.8  | 44.8  | 1.000  | >0.999 |

3. Single imputation using LOCF method

Results from the LOCF imputed data showed statistically significant difference between the two study groups across all time points. We also add the clinical stage into the LOCF model and used likelihood test to assess the model fitness between the two models, LR test *P* = 0.003 suggested that clinical stage shall be included in final LOCF model for MEQ. The conclusions are the same and detailed pairwise comparison results are:

| Visit | Systemic analgesic therapy alone (Control)  | Neurolytic splanchnic nerve block (Neurolysis)  | contrastControl - Neurolysisestimate lower.CL upper.CL | *P* | Adj. *P* |
| --- | --- | --- | --- | --- | --- |
| 1 | 171.7 [156.4, 187.0]  | 76.6 [60.8, 92.4]  | 95.1  | 76.1  | 114.1  | <0.001  | <0.001  |
| 2 | 176.5 [161.5, 191.6]  | 86.4 [70.9, 101.9]  | 90.1  | 71. 6  | 108.7  | <0.001  | <0.001  |
| 3  | 181.4 [166.5, 196.3]  | 96.2 [80.9, 111.5]  | 85.2  | 66.9  | 103.5  | <0.001  | <0.001  |
| 4  | 186.3 [171. 4, 201.1]  | 106.0 [90.8, 121.3]  | 80.3  | 62.1  | 98.4  | <0.001  | <0.001  |
| 5  | 191.1 [176.3, 205.9]  | 115.8 [100.6, 131.1]  | 75.3 | 57.1  | 93.5  | <0.001  | <0.001  |
| 6  | 196.0 [181.1, 210.9]  | 125.6 [110.3, 140.9]  | 70.4  | 52.1  | 88.7  | <0.001  | <0.001  |
| 7  | 200.8 [185.8, 215.9]  | 135.4 [119.9, 150.9]  | 65.4  | 46.9  | 84.0  | <0.001  | <0.001  |
| 8  | 205.7 [190.4, 221.0]  | 145.2 [129.5, 161.0]  | 60.5  | 41.5  | 79.5  | <0.001 | <0.001 |

**Sensitivity analysis for PCS**

1. Added survival days as an additional term of linear mixed effects (LME) model.

Likelihood ratio test to compare model with the term of survival days compared to the model without term: *P* = 0.380, showing no difference between model fitness between these two models. Detailed pairwise comparison results are:

| Visit | Systemic analgesic therapy alone (Control)  | Neurolytic splanchnic nerve block (Neurolysis)  | contrastControl - Neurolysisestimate lower.CL upper.CL | *P* | Adj. *P* |
| --- | --- | --- | --- | --- | --- |
| 1 | 30.1 [27.0, 33.2] | 35.6 [32.2, 39.1] | -5.5 | -9.4 | -1.6 | 0.006 | 0.048 |
| 2 | 29.9 [27.0, 32.8] | 34.4 [31.2, 37.6] | -4.5 | -8.1 | -1.0 | 0.012 | 0.096 |
| 3  | 29.6 [26.8, 32.4] | 33.1 [30.0, 36.3] | -3.5 | -6.9 | -0.1 | 0.041 | 0.328 |
| 4  | 29.4 [26.6, 32.1] | 31.9 [28.7, 35.1] | -2.5 | -6.0 | 1.0 | 0.151 | >0.999 |
| 5  | 29.1 [26.2, 32.0] | 30.6 [27.2, 34.0] | -1.5 | -5.4 | 2.3 | 0.422 | >0.999 |
| 6  | 28.8 [25.7, 32.0] | 29.4 [25.7, 33.1] | -0.6 | -4.8 | 3.7 | 0.800 | >0.999 |
| 7  | 28.6 [25.1, 32.0] | 28.1 [24.0, 32.3] | 0.4 | -4.5 | 5.4 | 0.859 | >0.999 |
| 8  | 28.3 [24.5, 32.1] | 26.9 [22.2, 31.6] | 1.4 | -4.2 | 7.0 | 0.614 | >0.999 |

2. Added stage as an additional term of linear mixed effects (LME) model.

Likelihood ratio test to compare model with the term of survival days compared to the model without term: P = 0.059, showing no difference between model fitness between these two models. Detailed pairwise comparison results are:

| Visit | Systemic analgesic therapy alone (Control)  | Neurolytic splanchnic nerve block (Neurolysis)  | contrastControl - Neurolysisestimate lower.CL upper.CL | *P* | Adj. *P* |
| --- | --- | --- | --- | --- | --- |
| 1 | 30.0 [27.1, 33.0] | 36.1 [33.0, 39.2] | -6.1 | -9.9 | -2.2 | 0.002 | 0.016 |
| 2 | 29.7 [26.9, 32.5] | 34.8 [31.9, 37.7] | -5.1 | -8.6 | -1.6 | 0.004 | 0.032 |
| 3  | 29.4 [26.7, 32.1] | 33.6 [30.7, 36.4] | -4.2 | -7.5 | -0.8 | 0.015 | 0.120 |
| 4  | 29.1 [26.4, 31.8] | 32.3 [29.3, 35.2] | -3.2 | -6.7 | 0.2 | 0.067 | 0.536 |
| 5  | 28.8 [25.9, 31.6] | 31.0 [27.8, 34.3] | -2.3 | -6.0 | 1.5 | 0.237 | >0.999 |
| 6  | 28.4 [25.3, 31.6] | 29.8 [26.1, 33.4] | -1.3 | -5.6 | 3.0 | 0.545 | >0.999 |
| 7  | 28.1 [24.7, 31.6] | 28.5 [24.4, 32.6] | -0.4 | -5.3 | 4.5 | 0.884 | >0.999 |
| 8  | 27.8 [24.0, 31.6] | 27.2 [22.6, 31.9] | 0.6 | -5.0 | 6.2 | 0.837 | >0.999 |

**Sensitivity analysis for MCS**

1. Added survival days as an additional term of linear mixed effects (LME) model.

Likelihood ratio test to compare model with the term of survival days compared to the model without term: *P* = 0.376, showing no difference between model fitness between these two models.

2. Added stage as an additional term of linear mixed effects (LME) model.

Likelihood ratio test to compare model with the term of survival days compared to the model without term: *P* = 0.185, showing no difference between model fitness between these two models.

**Survival Analysis: univariate log-rank test**

The log-rank test came back with a *P* = 0.063, which is different from our Cox model result. This is because we use the study center as clustering factor to account for the multi-center nature of this study, but this factor is not included in the log-rank test. Therefore, we decided to move the log-rank test in this supplement and only present the Cox regression results in the main text. We also performed sensitivity analysis to add center as a fixed factor instead of a clustering factor, and the result is consistent.