

Supplementary Material 1. Intragroup and intergroup comparisons of NRS static and dynamic values measured at 7 different time points.

Intragroup and intergroup comparisons of NRS static and dynamic values measured at 7 different time points are presented in supplementary material.

Static NRS

In the NRS variable, the interaction effect of time and group on the values measured in static states was statistically significant ($F(12;516) = 1,921$ $P = 0.030$; supplementary table 1). In intragroup comparisons, the values of the NRS variable measured at 7 different time points in the PENG, QLB and IA groups in the static state were statistically significantly different ($P < 0.001$, $P < 0.001$, $P < 0.001$; Supplementary table 1).

According to post hoc test results, pre-operative NRS values in PENG, QLB and IA groups were significantly higher than postoperative 3 h, 6 h, 8 h, 12 h, 24 h and 48 h values ($P < 0.001$, $P < 0.001$, $P < 0.001$, $P < 0.001$, $P < 0.001$; Supplementary table 1).

3-hour static

In the PENG, QLB, and IA groups, the 3 h NRS values were significantly higher than the postoperative 6 h, 8 h, 12 h, 24 h, and 48 h values ($P < 0.001$, $P < 0.001$, $P < 0.001$, $P < 0.001$, $P = 0.002$; Supplementary table 1).

6-hour static

6-h NRS values were significantly lower than 8-h and 12-h NRS values in PENG, QLB, and IA groups ($P < 0.001$, $P < 0.001$; Supplementary table 1).

8-hour static

8-h NRS values were significantly lower than 12-h NRS values in the PENG, QLB, and IA groups ($P = 0.039$; Supplementary table 1). 8-h NRS values were significantly higher than 48-h NRS values in the PENG, QLB, and IA groups ($P < 0.001$; Supplementary table 1).

12-hour static

12 h NRS values were significantly higher than 24 h and 48-h NRS values in PENG, QLB and IA groups ($P = 0.001$, $P < 0.001$; Supplementary table 1).

24-48 hour static

24 h NRS values were significantly higher than 48-h NRS values in PENG, QLB and IA groups ($P < 0.001$; Supplementary table 1).

When the values measured in the NRS static state measured at 7 different time points were compared between the groups; The values measured at the 6th hour were statistically significantly different between the study groups ($P = 0.003$). According to the post hoc test results, the mean values in the IA group were significantly higher than in the PENG and QLB groups (respectively; $P = 0.005$, $P = 0.017$; Supplementary table 1). The values measured at other time points were not statistically different between the study groups ($P > 0.05$).

Dynamic NRS

In the NRS variable, the interaction effect of time and group on the values measured in dynamic states was statistically significant ($F(12;516) = 2.306$, $P = 0.007$; Supplementary table 2). In intragroup comparisons, the values of the NRS variable measured at 7 different time points in the dynamic state in the PENG, QLB and IA groups were statistically significantly different ($P < 0.001$; Supplementary table 2).

Post hoc test results showing differences at which time points are presented in Table 3. Pre-operative NRS values were significantly higher than postoperative 3 h, 6 h, 8 h, 24 h, and 48 h values in the PENG group ($P < 0.001$; Supplementary table 1).

3-hour dynamic

NRS values at 3 h were significantly lower than values at 6 h, 8 h, 12 h, 24 h, and 48 h ($P < 0.001$; Table 3). The 6-h NRS values were significantly lower than the 8-h and 12-h NRS values ($P < 0.001$; Supplementary table 2). 8-h NRS values were significantly higher than 48-h NRS values ($P < 0.001$; Supplementary table 2). 12-h NRS values were significantly higher than 24h and 48-h NRS values ($P = 0.003$, $P < 0.001$; Supplementary table 2). Pre-operative NRS values were significantly higher than postoperative 3 h, 6 h, 8 h, 24 h, and 48 h values in the QLB group ($P < 0.001$; Supplementary table 2). NRS values at 3 h were significantly lower

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6-hour dynamic

6 h NRS values were significantly higher than 48 h NRS values ($P < 0.001$; Supplementary table 1). The 8-h NRS values were significantly higher than the 24h and 48-h NRS values ($P < 0.001$, $P < 0.001$; Supplementary table 2).

12-hour dynamic

12-h NRS values were significantly higher than 24h and 48-h NRS values ($P = 0.001$, $P < 0.001$; Supplementary table 2).

24-48 hour dynamic

24 h NRS values were significantly higher than 48-h NRS values ($P = 0.005$; Supplementary table 2). When the values measured in the NRS dynamic state measured at 7 different time points were compared between the groups; The values measured at the 3rd and 6th hours were statistically significantly different between the study groups (respectively; $P = 0.002$, $P < 0.001$; Supplementary table 2). According to the post hoc test results, the mean values in the IA group were significantly higher than in the PENG and QLB groups (respectively; $P = 0.002$, $P = 0.036$; $P < 0.001$, $P = 0.002$; Supplementary table 2). The values measured at other time points were not statistically different between the study groups ($P > 0.05$).