Response: Newborn Massage and Neonatal Jaundice

In our study (Chen et al. 2011), the statistical analysis was performed for stooling frequency. The stooling frequency was higher in the massage treatment group compared to the control group, especially in the first 2 days (4.6 and 4.3 vs 3.3 and 2.6, \( p < 0.05 \)), suggesting that gastrointestinal peristalsis may be increased. Thus, the passed meconium was increased, which may be the cause for the low values of serum total bilirubin on day 4 (11.7 ± 2.8 mg/dl vs. 13.7 ± 1.7 mg/dl, \( p < 0.01 \)) and transcutaneous bilirubin on days 2 - 5 (\( p < 0.05 \)) for the treatment infants compared to control group. No other statistic analysis was performed.

We also measured the shift rate to phototherapy to determine the duration of time elapsed prior to requirement of phototherapy due to hyperbilirubinemia (Fig. 1). There were 18 of 40 in the control group and 7 of 27 in the treatment group, who had phototherapy within 120 hours after birth. Because of skin rashes, 2 subjects in the massage treatment group were excluded from the trial. The result of Kaplan-Meier survival time analysis is shown in Fig. 1 that reveals no significant difference (\( p = 0.11 \)). With the Kaplan-Meier survival time analysis, we compared the time difference between the two groups before the samples accepted phototherapy when they were required. However, the time shift of phototherapy in the treatment group represents a progressive delay behind the control group (Fig. 1). But the difference was not statistically significant.

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References

Fig. 1. The time shift rate to the phototherapy.
The horizontal axis showing the time of each sample dropped out of this trial and switch to phototherapy. The vertical axis shows the proportion of samples in each group.