**SUPPLEMENTARY DIGITAL CONTENT 1: Alternative Multivariate Models for Prediction of Ischemic Optic Neuropathy**

Tables 1 and 2 represent alternative multivariate models when total nonblood replacement was utilized as the volume variable (table 1) instead of colloid as % of nonblood replacement (table 3, fig. 1 from article), and when the interaction factor for total nonblood replacement and anesthesia duration was included (table 2). Variable selection for potentially modifiable intraoperative *management* factors (stage 4) was performed twice: first, the total nonblood replacement was excluded from the model-building (see table 3 from article) and in the second iteration it was considered (tables 1 and 2). In both iterations colloid as % of nonblood replacement remained in the model and in the second iteration (tables 1 and 2) the total nonblood replacement and the total nonblood replacement-duration interaction were also included. Alternative models using backward elimination variable selection were the same as the models produced by forward selection (data not shown). Area under the curve (AUC) for the different multivariate models were similar with table 3, figure 1 from the article (AUC = 0.87), table 1 AUC = 0.89, and table 2 AUC = 0.90. Percent colloid of nonblood replacement was chosen as the fluid replacement variable in the final multivariate model because it was only weakly correlated with anesthetic duration and estimated blood loss, whereas total volume and total nonblood volume variables were highly correlated with these variables (table 2 from article). Moreover, inclusion of total volume variables would conceal potentially significant differences in volume expansion and transcapillary leakage between crystalloid, colloid, and blood products.

**Table 1. Stage 4 (With Total Nonblood Replacement).**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **OR (95% CI)** | **Coef. ± SE** | ***p*** |
| Male | 2.49 (1.27-5.02) | 0.91 ± 0.35 | 0.009 |
| Obesity | 2.67 (1.40-5.21) | 0.98 ± 0.33 | 0.003 |
| Wilson | 4.23 (2.06-8.78) | 1.44 ± 0.37 | <0.001 |
| Anesthesia duration (h), OR per 1 h\* | 1.11 (0.94-1.30) | 0.10 ± 0.08 | 0.2 |
| Estimated blood loss (l), OR per 1 l\* | 1.05 (0.88-1.27) | 0.05 ± 0.09 | 0.6 |
| Colloid as % of nonblood replacement, OR per 5%\* | 0.70 (0.54-0.89) | -0.35 ± 0.13 | 0.005 |
| Total nonblood replacement (l), OR per 1 l | 1.43 (1.23-1.68) | 0.36 ± 0.08 | <0.001 |

N = 386; AUC = 0.89.

AUC = area under the curve; h = hours; l = liters; OR = odds ratio.

\*centered at the mean values of 7.6 h (anesthesia duration), 1.7 l for estimated blood loss, 7.4% for colloid, and 6.2l (total nonblood replacement).

**Table 2. Stage 4 (With Total Nonblood and Total Nonblood Replacement: Anesthesia Duration Interaction).**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **OR (95% CI)** | **Coef. ± SE** | ***p*** |
| Male | 2.29 (1.16-4.63) | 0.83 ± 0.35 | 0.02 |
| Obesity | 2.55 (1.32-5.03) | 0.94 ± 0.34 | 0.006 |
| Wilson | 4.47 (2.13-9.60) | 1.50 ± 0.38 | <0.001 |
| Anesthesia duration (h), OR per 1 h\* | 1.24 (1.04-1.47) | 0.21 ± 0.09 | 0.02 |
| Estimated blood loss (l), OR per 1 l\* | 1.06 (0.89-1.29) | 0.06 ± 0.09 | 0.5 |
| Colloid as % of nonblood replacement, OR per 5%a | 0.69 (0.53-0.87) | -0.37 ± 0.13 | 0.003 |
| Total nonblood replacement (l), OR per 1 l\* | 1.54 (1.31-1.83) | 0.43 ± 0.08 | <0.001 |
| Total nonblood: anesthesia duration interaction | 0.96 (0.93-0.99) | -0.04 ± 0.02 | 0.007 |

N=386. AUC = 0.90.

AUC = area under the curve; h = hours; l = liters; OR = odds ratio.

\*centered at the mean values of 7.6 h (anesthesia duration), 1.7 l for estimated blood loss, 7.4% for colloid, and 6.2l (total nonblood replacement).