# **Supplement 1.**

# **Table 1S. Time in study (n=44)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **OctaplasLG®** | **Standard FFP** | **P-values** |
| **Study time in min** |  |  |  |
| Inclusion to 15 min pre-CPB end | 165 (142-200) | 188 (162-230) | .078 |
| 15 min pre-CPB end to 2 hours post CPB | 130 (125-149) | 130 (123-140) | .335 |
| 15 min pre-CPB end to end of surgery | 130 (106-176) | 153 (98-164) | .897 |
| 15 min pre-CPB end to arrival ICU | 180 (145-224) | 195 (123-230) | .888 |
| ICU to 24 hours | 1395 (1388-1415) | 1405 (1400-1415) | .269 |
| 24 hours to 48 hours | 1440 (1440-1446) | 1440 (1437-1440) | .210 |

CPB, cardiopulmonary bypass pump

Data presented as medians (interquartile range). Mann-Whitney U test.

**Table 2S Levels of C-reactive protein, interleukin-6 and catecholamines (n=44)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Baseline** | **2-hours after CPB** | **ICU** | **24-hours** | **48-hours** | **Mixed repeated model at time point** | **Time**  **P-value** | **Group**  **P-value** | **Time x Group**  **P-value** |
| **C-reactive protein (CRP), ng/mL** | **OctaplasLG®** | 5558  (2623-18318) | 9003  (3963-19785) | 10015  (5426-21164) | 29138  (28021-29469) | 28978  (27787-29238) | **24-hours** | < .001 | .482 | .702 |
| **Standard FFP** | 6542  (2081-13549) | 7664  (2833-15300) | 10864  (4764-16590) | 28401  (27326-29480) | 28326  (27406-29249) | **48-hours** | < .001 | .469 | .557 |
| **Interleukin-6 (IL-&), pg/mL** | **OctaplasLG®** | 192  (103-252) | 172  (99-251) | 173  (93-254) | 156  (108-215) | 107  (51-143) | **24-hours** | < .001 | .848 | .005 |
| **Standard FFP** | 243  (161-272) | 149  (109-251) | 140  (109-244) | 74  (53-114) | 67  (42-83) | **48-hours** | < .001 | .523 | .011 |
| **Adrenaline, pg/mL** | **OctaplasLG®** | 97  (54-219 | 48  (27-127) | 68  (27-220) | 96  (81-201) | 84  (32-144) | **24-hours** | .717 | .524 | .449 |
| **Standard FFP** | 77  (18-322) | 73  (20-184) | 45  (16-141) | 94  (18-144) | 80  (48-166) | **48-hours** | .786 | .547 | .331 |
| **Noradrenaline, pg/mL** | **OctaplasLG®** | 956  (396-2088) | 1191  (417-3693) | 1239  (447-3285) | 1224  (737-2303) | 917  (607-1345) | **24-hours** | 824 | .531 | .259 |
| **Standard FFP** | 1602  (502-4642) | 1451 (1036-3725) | 1116 (373-5146) | 1311 (579-1686) | 1265 (821-1657 | **48-hours** | .398 | .454 | .376 |

CPB Cardiopulmonary bypass. ICU Intensive Care Unit. IQR interquartile range

Data presented as medians (interquartile range). Mixed repeated model.

**Table 3S ICU data on organ failure and renal replacement therapy (n=44)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Baseline** | **Day 1** | **Day 2** | **Day 3** | **Day 4** | **Day 5** | **Day 6** | **Day 7** |
| **PaO2/FiO2 ratio during ICU day 0-7** | **OctaplasLG®** | 23 (12-28) | 20 (14-27) | 24 (20-26) | 23 (20-27) | 23 (18-31) | 21 (19-25) | 23 (21-33) | 26 (23-27) |
| **Standard FFP** | 22 (17-31) | 17 (14-23) | 17 (16-27) | 19 (16-23) | 17 (11-20) | 18 (9-21) | 17 (11-27) | 19 (17-33) |
| **P-value** | .741 | .319 | .381 | .085 | .068 | .157 | .453 | .909 |
| **Renal replacement therapy during ICU day 0-7** | **OctaplasLG®** | 3 (13%) | 3 (13%) | 3 (13%) | 3 (13%) | 2 (8.7%) | 1 (4.3%) | 1 (4.3%) | 1 (4.3%) |
| **Standard FFP** | 2 (9.5%) | 3 (14.3%) | 3 (14.3%) | 3 (14.3%) | 1 (4.8%) | 1 (4.8%) | 1 (4.8%) | 1 (4.8%) |
| **P-value** | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| **SOFA score during ICU day 0-7** | **OctaplasLG®** | 6 (5-9) | 7 (5-9) | 6 (4-7) | 6 (5-7) | 4 (3-5) | 5 (4-6) | 5 (5-5) | 6 (6-6) |
| **Standard FFP** | 7 (6-8) | 7 (5-8) | 6 (4-7) | 5 (4-6) | 5 (4-6) | 4 (3-6) | 4 (4-5) | 6 (3-7) |
| **P-value** | .458 | .943 | .963 | .541 | .314 | .760 | .240 | .914 |
| **Acute Kidney Injury (RIFLE) score during ICU day 0-7** | **OctaplasLG®** | 0 (0-1) | 0 (0-1) | 0 (0-1) | 0 (0-0) | 0 (0-1) | 0 (0-1) | 0 (0-0) | 0 (0-0) |
| **Standard FFP** | 1 (0-1) | 1 (0-2) | 0 (0-1) | 0 (0-1) | 0 (0-0) | 0 (0-0) | 0 (0-0) | 0 (0-0) |
| **P-value** | .427 | .282 | .538 | .406 | .283 | .741 | .563 | 1.0 |

RIFLE Score: 0 = Normal; 1 = Risk; 2 = Injury; 3 = Failure; 4 = Loss; 5 = End-stage kidney disease

Data presented as number (%) or medians (interquartile range). Mann-Whitney U test or Chi-square/Fisher’s exact test as appropriate

**Table 4S Serious Adverse Events - Safety Endpoints (n=44)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Group** | **Baseline** | **Day 1** | **Day 2** | **Day 3** | **Day 4** | **Day 5** | **Day 6** | **Day 7** | ***P*-value** |
| **TACO** | **OctaplasLG®** | 1 (4.3%) | 1 (4.3%) | 1 (4.3%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 1.0 |
| **FFP** | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) |
| **TRALI** | **OctaplasLG®** | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 1.0 |
| **FFP** | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) |
| **Anaphylaxis** | **OctaplasLG®** | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | .477 |
| **FFP** | 1 (4.8%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) |
| **RBC > 2**  **in 24 hours** | **OctaplasLG®** | 23 (100%) | 3 (13.0%) | 0 (0.0%) | 1 (4.3%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | .547 |
| **FFP** | 21 (100%) | 5 (23.8%) | 1 (4.8%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) |
| **Ischemia \*** | **OctaplasLG®** | 3 (13.0%) | 3 (13.0%) | 3 (13.0%) | 3 (13.0%) | 3 (13.0%) | 3 (13.0%) | 3 (13.0%) | 2 (9.1%) | 1.0 |
| **FFP** | 2 (9.5%) | 2 (9.5%) | 3 (14.3%) | 2 (9.5%) | 2 (9.5%) | 2 (9.5%) | 3 (14.3%) | 3 (14.3%) |
| **Other SARs** | **OctaplasLG®** | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 1.0 |
| **FFP** | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) |

Data presented as n (%). Chi-square/Fisher’s exact test as appropriate. SAR Serious Adverse Reactions

\* Ischemia as in stroke, myocardial infarction, intestinal and extremities ischemia.

# **Figure 1S**

Figure 1S displays the relative changes from baseline (BL) in the endothelial derived biomarkers A) Syndecan-1, B) sVE-cadherin, C) sE-selectin and D) Thrombomodulin at baseline (BL) i.e. 15 min before weaning from cardiopulmonary bypass pump, 24 hours (24-h) and 48 hours (48-h) after surgery in patients randomized to OctaplasLG® or standard FFP. According to the primary endpoints, the relative changes from BL, at 24-h and 48-h in each group are compared by Mann-Whitney U test: †, P < .05 and ‡, P < .10.

Data presented as median and interquartile range

**Figure 2S**

Figure 2S displays the absolute levels of the endothelial derived biomarkers A) Syndecan-1, B) sVE-cadherin, C) sE-selectin and D) Thrombomodulin at baseline (BL) ie. 15 min before weaning from cardiopulmonary bypass pump (CPB), 2 hours (2-h) after CPB, 24 hours (24-h) and 48 hours (48-h) after surgery in patients randomized to OctaplasLG® or standard FFP.

Data presented as median and interquartile range. Mixed repeated model.

# \*, Change from baseline within each group P < .05.​

# †, P < .05