Supplementary Table 1. Pre-/post-PMX-HP change in clinical outcomes (IL = interleukin, APACHE = Acute Physiology and Chronic Health Evaluation score; MAP = mean arterial pressure, SBP = systolic blood pressure)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Author,year  (reference) | Tani,1998  (20) | Nakamura, 2000  (21) | Nemoto, 2001  (5) | Suzuki, 2002  (12) | Nakamura, 2005  (23) | Vincent, 2005  (22) | Cruz, 2009  (6) | Takahashi, 2014  (15) | Payen, 2015  (9) |
| **Timing of evaluation** | immediate after PMX-HP | after 2nd PMX-HP | 3 hours after PMX-HP | after  24 hours |  | after 24 hours | after 72 hours | after 12-24hours | on day 3 |
| **Plasma endotoxin level**  **(pg/ml)** | perchloric acid(PCA) method | Sep-Pak C18 column | Endospecy method |  | Endospecy method | modified limulus amebocyte lysate (LAL) assay |  |  |  |
| 83.7±26.7 to  56.4±27.9  (*p*<0.05) | 36.4±8.2  to  10.6 ±38  (*p*<0.001) | 38.6±5.7  to  21.4±2.0 (*p*<0.006) | significant reduction (*p*<0.01) | 49± 23  to 10.4±5.5  after 2ndPMX-HP  (*p*<0.01) | 25%percentile:  3.8 to 9.0  50%percentile:  28 to 38.5  75%percentile:  96.8 to 69\* |  |  |  |
| 49± 23  to 4.8±2.2  on the following day (*p*<0.001) |  |  |  |
|  |  |  |  |  | **IL-18**  enzyme-linked immunosorbent assay | **IL-6**  commercial kit (Quantikine, R&DSystems, Minneapolis, MN) |  |  |  |
| **Plasma cytokine**  **level**  **(pg/ml)** |  |  |  | **IL-6** ↓  **IL-1β**↓  (*p*< 0.05) | 1410±380  to 640±240  after 2ndPMX-HP (*p*<0.01) | 25%percentile:  350 to 187  50%percentile:  1632 to 512  75%percentile:  4316 to1746\* |  |  |  |
|  |  |  |  | 1410±380  to 360±180  on the following day(*p*<0.001) |  |  |  |
|  | **In MAP<90:**  SBP↑  78.2± 2.3  to 93.2±4.0  (*p*<0.01)  **in MAP>90:**  SBP↑  127.8  to135.8 (*p*<0.05) | SBP↑  82±10 to 102±14 (p<0.01) | **In APACHE II <10 :**  MAP ↑  81±6 to104±4  (*p*<0.005) |  |  | MAP ↑  4.2±13.74 on day1  MAP ↑  10.8 ±13.65 on day2 (*p*=0.006) | MAP ↑  76 (72-80)  to 84 (80-88)  (*p*=0.001) |  |  |
| **Blood Pressure**  **(mmHg)** | **In APACHE II 20-29 :**  MAP ↑  78±2 to 94±4 (*p*<0.001) |  |  |  |  |
|  | **In APACHE II >30 :**  MAP ↑  75±3 to 75±4\* |  |  |  |  |
| **PaO2/FIO2 Ratio** |  |  |  |  |  | increased  29.54 ±83.38  on day2\* | Increased   from235(206-265)  to 264(236-292)  (*p*=0.049) | increased  from162±88.8  to 306±83.5  (*p*=0.0087) |  |
|  |  |  |  |  |  |
| **SOFA score change** |  |  |  |  |  |  | −3.4  (−4.4 ~ −2.4)  (*p*<0.001) | -3.3 ± 2.1  (*p*=0.019) | decreased from10(3-15)  to 8 (0-16)   (*p*<0.01) |

\* insignificant difference.