ANESTHESIOLOGY 2015. Abstracts of America Association of Anesthesiology Conference

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| October 25, 2015 |
| **A2088.** **The False Positive Soluble CD 14 Subtype is Lower Than That of Procalcitonin in Postoperative Severe Elective Surgery Patients: A Prospective Observational Trial** |
| Yoshitaka Hara, M.D., Tomoyuki Nakamura, M.D., Naohide Kuriyama, M.D., Satoshi Komatsu, M.D., Seiko Hayakawa, M.D., Sohta Uchiyama, M.D., Daisuke Niimi, M.D., Chizuru Yamashita, M.D., Junpei Shibata, M.D.,Ph.D., Osamu Nishida, M.D.,Ph.D. Fujita Health University School of Medicine, Toyoake, Japan |
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| **Background**  The soluble CD14 subtype, presepsin (P-SEP), has been reported to be a novel diagnostic marker for sepsis. Clinicians must have knowledge about false positive biomarkers. There have been reports about elevation of the P-SEP level in patients with renal dysfunction, but reports about surgical insult have been few. In this study, we focused on surgical insult and evaluated the hypothesis that the false positive rate after surgical insult is lower for P-SEP than for procalcitonin (PCT).  .  This study was a single-facility prospective observational trial. The subjects were patients undergoing elective surgery, and expected to be admitted to the ICU between April and July 2014, excluding those with clear indications of preoperative infection. The cutoff values of P-SEP and PCT were 500 pg/ml and 0.5 ng/ml, respectively. The primary outcome was the false positive rate of the maximum value (P-SEPmax, PCTmax) during 3 days after admission to the ICU. The secondary outcome was factors related to P-SEPmax and PCTmax. As explanatory variables were: the age, preoperative eGFR, implementation of cardiopulmonary bypass (CPB), APACHE II, and operation time. This study was carried out with approval by the institutional review board.  **Results**  The subjects were 55 patients (35 males and 20 females; 44 treated at the Department of Cardiovascular Surgery, 11 treated at other departments). The operation time (median (interquartile)) was 313 (241-431) min. The P-SEPmax and PCTmax were 416 (272-771) pg/ml and 0.93 (0.45-2.52) ng/ml, respectively. The false positive rate of P-SEPmax was significantly lower than that of PCTmax (43% for P-SEPmax, 69% for PCTmax, p<0.001). CPB was significantly related to PCTmax but not to P-SEPmax. The preoperative eGFR showed no significant correlation with P-SEPmax or PCTmax.  . **Conclusions**  In patients who underwent elective surgery and were expected to be admitted to the ICU, the false positive rate of P-SEPmax was lower than that of PCTmax. The CPB was related to PCTmax but not to P-SEPmax. |