

**Abstracts (Poster Presentation)****Intraoperative Hemodynamic Parameters Related with Acute Kidney Injury in Non-ruptured AAA**

Theerada Chandee, M.D.<sup>1\*</sup>, Saritphat Orrapin, M.D.<sup>2</sup>,  
Chonticha Sriparkdee, M.D.<sup>1</sup>, Kitipon Wongwatanyuta, M.D.<sup>1</sup>

**Abstract**

**Introduction:** Postoperative acute kidney injury (AKI) is associated with poor outcomes after abdominal aortic aneurysm (AAA) repair. There is no study of intraoperative hemodynamic parameters during AAA repair affected AKI.

**Objectives:** The correlation between raising of perioperative creatinine level (pCr) and intraoperative hemodynamic parameters in patients with non-ruptured infrarenal AAA repair.

**Methods:** Patients underwent non-ruptured infrarenal AAA repair by open aneurysmorrhaphy and endovascular aneurysm repair (EVAR) at Thammasat University Hospital between January 2016 and October 2021. Intraoperative hemodynamic parameters and AKI by raising of pCr correlation were analysed by Spearman's rank correlation test. The multivariate regression analysis was determining the perioperative risk factors of AKI.

**Results:** Thirty Two patients consisted of 14 patients (43.75%) in open aneurysmorrhaphy and 18 patients (56.25%) in EVAR. The median (interquartile range) of pCr change was 1.11 (0.80, 1.43). pCr level raising significant difference between AKI and non-AKI group. (mean  $\pm$  standard deviation (SD) =  $-0.10 \pm 0.23$  and  $0.63 \pm 0.40$ , mean difference = 0.73;  $P$ -value = .007). Immediate de-clamping or deployment diastolic blood pressure (DBP) and mean arterial pressure (MAP) were significantly related with pCr raising by moderated correlation ( $P = .013, .018$ , respectively). De-clamping hypotension by SBP, DBP, MAP and decreasing MAP after de-clamping/deployment were significant related with pCr raising by moderated correlation ( $P = .006, < .001, < .001$ , and  $< .001$ , respectively).

**Conclusions:** pCr change was a risk factor of perioperative AKI. Immediate de-clamping/deployment DBP, MAP, and de-clamping hypotension were significantly correlated with pCr raising in non-ruptured infrarenal AAA repair procedure.

**Keywords:** AKI, Non-ruptured AAA, Hemodynamic parameters, Creatinine

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<sup>1</sup> Department of Anesthesiology, Faculty of Medicine, Thammasat University, Pathum Thani, Thailand

<sup>2</sup> Division of Vascular Surgery, Department of Surgery, Faculty of Medicine, Thammasat University, Pathum Thani, Thailand

\*Corresponding author: Theerada Chandee, M.D., Department of Anesthesiology, Faculty of Medicine, Thammasat University, Pathum Thani, Thailand

Email: [chtheerada@gmail.com](mailto:chtheerada@gmail.com)