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海外招請講演

## [IL(E)4]海外招請講演4

座長:森松 博史(岡山大学病院麻酔科蘇生科)

Fri. Mar 1, 2019 9:00 AM - 10:00 AM 第5会場 (国立京都国際会館1F Room D)

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### [IL(E)4-2]Update from TSCCM: Vasopressors in sepsis

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【同時通訳付き】

- Chairman, Department of Medicine and the chief of Medical ICU, Siriraj Medical School, Mahidol University, Bangkok, Thailand
  - Chairman of Education and International Relation, The Thai Society of Critical Care Medicine
- Research Interests
- Sepsis and septic shock, focusing on hemodynamic management and monitoring.
  - Mechanical ventilation, focusing on monitoring
  - ICU administration, focusing on ICU design and quality improvement

Sepsis pathophysiology includes generalized vasodilatation and vascular leakage from generalized inflammation which arises from uncontrolled infection. Depressed cardiac contractility is also noted in some patients. Hypotension is considered as distributive event and resuscitation thus consists of fluid therapy to restore intravascular volume depletion and vasopressors to correct vasodilatation.

Regarding the uses of vasopressors, norepinephrine (NE) is advocated as the first line agent. When compared with dopamine, use of NE resulted in lower mortality and less occurrence of arrhythmia. Vasopressin or antidiuretic hormone is introduced lately as low natural level was noted in sepsis patients. At present, the 2016 Surviving Sepsis Campaign suggests vasopressin in patients who are not responsive to high dose NE. Epinephrine is preserved in refractory shock but its use as a first line agent is not advocated due to reports of high mortality and morbidity.

Use of vasopressors requires close monitoring. First, macrocirculation target, the mean arterial pressure of 65 mmHg, needs to be frequently assessed. Tissue perfusion or “microcirculation” is another important concern since intense vasoconstriction might compromise microcirculation. Moreover, local complication needs to be frequently assessed, especially in those whom NE is given via peripheral vein.

Perfect timing of vasopressors has long been discussed. Evidences supporting early use are accumulating. Recently, our double blind RCT disclosed that the administration of low dose NE during the initiation of resuscitation resulted in higher shock reversal rate at 6 hours, nonsignificant lower mortality and less cardiac complication.