

## ABSTRAK

### **KORELASI ANTARA TEKANAN ARTERI RERATA DENGAN RASIO EKSTRAKSI OKSIGEN SEDERHANA PADA PASIEN SYOK SEPTIK DI INSTALASI RAWAT INTENSIF RSUP DR. SARDJITO YOGYAKARTA**

**Latar belakang :** Pada kondisi syok sepsis, monitoring makrosirkulasi seperti tekanan arteri rerata dan mikrosirkulasi perlu dilaksanakan. Rasio ekstraksi oksigen sederhana dapat menjadi alternatif monitoring mikrosirkulasi selain laktat,  $pCO_2$  gap dan *base excess*.

**Tujuan :** Mengetahui korelasi tekanan arteri rerata dengan rasio ekstraksi oksigen sederhana pada pasien syok septik di instalasi rawat intensif.

**Metode :** Penelitian *cross sectional* ini melibatkan 33 pasien, usia diatas 18 tahun, terduga syok septik, memenuhi kriteria inklusi dan dirawat di instalasi rawat intensif. Seluruh pasien dilakukan pengambilan bersamaan sampel darah AGD vena sentral melalui CVC (ujung CVC di atrium kanan), AGD arteri perifer, dan pengukuran tekanan arteri rerata menggunakan NIBP. Pemeriksaan AGD menggunakan i-STAT. Perhitungan rasio ekstraksi oksigen sederhana didapatkan dari rumus  $(SaO_2 - ScvO_2) / SaO_2$ .

**Hasil :** Terdapat korelasi antara rasio ekstraksi oksigen sederhana dengan tekanan arteri rerata  $P = 0,0001$  dengan koefisien relasi  $(r) = -0,606$

**Kesimpulan :** Tekanan arteri rerata pada pasien syok septik memiliki pengaruh terhadap rasio ekstraksi oksigen sederhana.

**Kata kunci :** Syok septik, rasio ekstraksi oksigen sederhana, tekanan arteri rerata, instalasi rawat intensif

## ABSTRACT

### CORRELATION BETWEEN MEAN ARTERIAL PRESSURE WITH SIMPLE OXYGEN EXTRACTION RATIO IN SEPTIC SHOCK PATIENT IN ICU DR. SARDJITO HOSPITAL YOGYAKARTA

**Background:** In septic shock conditions, macrocirculation monitoring such as mean arterial pressure and microcirculation needs to be carried out. Simple oxygen extraction ratio can be an alternative to microcirculation monitoring other than lactate, pCO<sub>2</sub>gap and base excess.

**Objective :** To determine correlation between mean arterial pressure with simple oxygen extraction ratio in septic shock condition in ICU.

**Methods :** This cross-sectional study involved 33 patients, over 18 years of age, suspected septic shock, meeting inclusion criteria and being admitted to intensive care. All patients were co-administered blood sample by a central venous blood gas analysis through CVC (CVC tip in the right atrium), peripheral arterial blood gas analysis, and mean arterial pressure measurements using NIBP. The blood gas analysis check uses i-STAT. Calculation of simple oxygen extraction ratio is obtained from the formula  $(\text{SaO}_2 - \text{ScvO}_2) / \text{SaO}_2$ .

**Result :** There were any correlation between simple oxygen extraction ratio and MAP,  $P = 0,0001$  with relationship correlation  $(r) = -0,606$

**Conclutson :** The mean arterial pressure in patients with septic shock has an influence on simple oxygen extraction ratios.

**Keywords :** septic shock, simple oxygen extraction ratio, mean arterial pressure, intensive care unit