ABSTRAK

Analisis Kadar d-Dimer untuk derajat keparahan berdasarkan skor APACHE II dan SOFA pada penderita Sepsis

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Pendahuluan

d-Dimer merupakan indikator penting yang menunjukkan keparahan gangguan koagulasi pada sepsis. Selama ini skor APACHE II digunakan untuk menilai derajat keparahan sedangkan skor SOFA untuk mengetahui sejauh mana terjadi kegagalan fungsi organ. Penelitian untuk menganalisis hubungan d-Dimer dengan derajat keparahan menurut skor APACHE II dan SOFA dan d-Dimer sebagai prediktor *non-survivors/survivors* sepsis.

Metode

Penelitian bersifat potong lintang observasional. Sampel darah sitrat dari 52 penderita sepsis yang dirawat di IRD, ICU, ROI, Ruang penyakit dalam RSUD.Dr.Soetomo Surabaya, dikumpulkan selama Februari 2016- Juni 2016. d-Dimer dan skor APACHE II diambil pada hari pertama pasien terdiagnosis sepsis, skor SOFA dinilai hari 1-5. Kadar d-Dimer diukur dengan metode ELFA (*Enzyme linked fluorescent assay*).

Hasil

Rentang d-Dimer 368,16 ng/mL-14.980,81 ng/mL, rerata d-Dimer 3879,46±2800,29 ng/mL. d-Dimer pada *non survivors* sepsis menurut skor APACHE II dan SOFA lebih tinggi daripada *survivors* sepsis. Terdapat korelasi positif yang bermakna antara kadar d-Dimer dengan skor APACHE II dan skor SOFA r = 0,513 dan r = 0,580 (p=0,01). d-Dimer meningkat bermakna pada tingkat keparahan sepsis. Titik potong d-Dimer ≥ 4115,10 ng/mL untuk *non-survivors* sepsis menurut skor APACHE II. Titik potong d-Dimer ≥ 4483,47ng/mL untuk non-survivors sepsis menurut skor SOFA.

Simpulan

d-Dimer dapat memprediksi derajat keparahan sepsis berdasakan skor APACHE II dan SOFA. Kadar d-Dimer dengan titik potong ≥ 4115,10 ng/mL dapat sebagai prediktor *non-survivors* sepsis berdasarkan skor APACHE II (sensitifitas 77,8%,spesifisitas 76,4%). Kadar d-Dimer dengan titik potong ≥ 4483,47 ng/mL dapat sebagai prediktor *non-survivors* sepsis berdasarkan skor SOFA (sensitivitas 70%,spesifitas 69%).

Kata Kunci : d-Dimer, APACHE II, SOFA, tingkat keparahan sepsis

ABSTRACT

ANALYSIS OF d-DIMER LEVELS FOR SEVERITY BASED ON APACHE II AND SOFA SCORE IN PATIENTS WITH SEPSIS

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Introduction

d-dimer is an important indicator showing coagulation severity that occurs in sepsis. APACHE II score is used to assess the degree of severity. SOFA score is used to determine the extent which there is a failure of organ function. The purpose of this study to analyze the relationship of d-Dimer with severity by APACHE II score and levels of D-dimer as a predictor in patients sepsis non-survivors / survivors.

Methods

A cross-sectional observational study. Citrate blood samples from 52 patients who were treated at Emergency unit, ICU, ROI, Internal wards of the Dr.Soetomo hospital, conducted in February 2016- June 2016. d-Dimer and APACHE II score was taken on the first day, while SOFA score was assesed 1-5 days. d-Dimer levels were measured using ELFA (Enzyme linked fluorescent assay).

Result

The mean levels of D-dimer were elevated 3879.46 ± 2800.29 ng / mL. Non survivors sepsis patients showed APACHE II and SOFA scores higher than survivors. There was a significant positive correlation between the levels of d-dimer with APACHE II and SOFA score with r = 0.513 and r = 0.580 (p = 0.01). d-Dimer levels increased significantly in the severity of sepsis. Cut off d-Dimer levels ≥ 4115.10 ng / mL can predict non-survivors sepsis patients based on APACHE II (77,8% for sensitivity and 76,4% for spesificity). Cut off d-Dimer ≥4838,47 ng/mL can predict non-survivors sepsis patients based on SOFA (70% for sensitivity and 69% for specifity).

Conclusion

d-Dimer value can predict severity of sepsis. Cut-off d-Dimer value ≥ 4115,10 ng/mL can predict non-survivors sepsis based on APACHE II scores (77,8% for sensitivity and 76,4% for spesificity). For SOFA scores, cut-off d-Dimer ≥ 4838,47 ng/mL can predict non-survivors sepsis (70% for sensitivity and 69% for specifity).

Key words : d-Dimer, APACHE II, SOFA, severity of sepsis