Laktat sebagai prediktor prognosis dan diagnosis kebocoran plasma pada pasien dewasa dengan infeksi dengue = Lactate as a prognostic predictor and diagnostic of plasma leakage in adult dengue infected patients / Rika Bur

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Abstrak

[ABSTRAK
Latar Belakang : Perbedaan antara demam dengue (DD) dan demam berdarah dengue (DBD) adalah terjadinya kebocoran plasma pada DBD. Kebocoran plasma pada ruang interstitial ditandai dengan adanya efusi cairan di pleura dan peritoneal, hemokonsentrasi, serta hipovolemia intravaskular. Keadaan ini menyebabkan gangguan perfusi ke jaringan, sehingga menyebabkan metabolism anaerob. yang menimbulkan peningkatan kadar laktat dalam darah.
Tujuan Penelitian: Mengetahui peran laktat sebagai prediktor prognosis dan diagnosis kebocoran plasma pada infeksi dengue pasien dewasa.
Metode: Studi potong lintang, pada infeksi virus dengue pasien dewasa yang dirawat di bangsal penyakit dalam RS Cipto Mangunkusumo dan RS Persahabatan Jakarta. Jumlah subjek sebanyak 57 orang. Dilakukan pemeriksaan kadar laktat untuk melihat perbedaan rerata kadar laktat antara DD dan DBD dengan uji t-tes tidak berpasangan, dan nilai titik potong kadar laktat pada keadaan tanpa atau dengan kebocoran plasma dilakukan dengan menentukan sensitifitas dan spesifisitas terbaik dari kurva ROC yang sudah dibuat.
Hasil: Rerata kadar laktat pada DBD secara bermakna lebih tinggi daripada DD. Nilai titik potong untuk prediktor prognostik pada hari ke-3 yang ditentukan dengan kurva ROC mendapatkan nilai kadar laktat ≥ 2,65 mmol/ L dengan AUC 0,626 ; IK 95% 0,480-0,772. Dan nilai titik potong untuk diagnostik pada hari ke-5 mendapatkan nilai kadar laktat ≥ 2,55 mmol/L memberikan sensitivitas 66,6%% dan spesifisitas 54,2%.
Kesimpulan: Terdapat perbedaan bermakna kadar laktat antara DD dan DBD. Nilai kadar laktat ≥ 2,65 mmol/L belum dapat digunakan sebagai prediktor prognostik adanya kebocoran plasma pada fase kritis. Nilai kadar laktat ≥ 2,55 mmol/L pada saat fase kritis dipakai sebagai petanda adanya kebocoran plasma dengan akurasi yang rendah.
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ABSTRACT
Background : The difference between dengue fever (DF) and dengue hemorrhagic fever (DHF) is plasma leakage which occurs in DHF. The leakage of plasma into interstitial space is shown by pleura and peritoneal effusion, hemoconcentration, and intravascular hypovolemia. Anaerob metabolism will

occur due to perfusion dysfunction which will cause increased serum lactate.
Objectives : To determine the role of lactate as a prognostic predictor and
diagnostic in plasma leakage which occurs in adult dengue-infected patients.
Methods : This is cross-sectional study which is conducted in adult dengueinfected
patients hospitalized in internal medicine ward of Cipto Mangunkusumo
Hospital and Persahabatan Hospital in Jakarta. There are 57 adult dengue-infected
patients recruited. Serum lactate is examined to determine the mean difference
between DF and DHF. The data is analyzed by t-test independent and cut-off point
is identified in presence as well as absence of plasma leakage which is to
determine the sensitivity and specificity based on ROC curve.
Results : The mean of serum lactate in DHF is significantly higher compared to
DF. The cut-off point of prognostic predictor in day three of fever which is
determined based on ROC curve shows lactate serum ≥ 2.65 mmol/L with AUC
0.626; 95% CI 0.480-0.772. Moreover, the cut-off point of diagnostic factor in
day five of fever is shown by serum lactate ≥ 2.55 mmol/L with sensitivity 66.6%
and specificity 54.2%.
Conclusion : There is difference of serum lactate in DF and DHF. Serum lactate ≥
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