

HUBUNGAN TERAPI CAIRAN RINGER LAKTAT DENGAN HIPONATREMIA PADA SINDROM SYOK DENGUE

ABSTRAK

Latar Belakang: Hiponatremia merupakan kelainan elektrolit tersering pada sindrom syok dengue. Pemberian cairan kristaloid hipotonis dalam jumlah banyak adalah salah satu penyebab hiponatremia pada sindrom syok dengue, selain kondisi *acute kidney injury*. Ringer laktat mengandung kadar natrium yang lebih rendah dibandingkan kadar natrium serum.

Tujuan: Mengetahui hubungan antara jumlah terapi cairan ringer laktat dengan hiponatremi pada sindrom syok dengue.

Metode: Penelitian kohort retrospektif ini dilakukan pada subyek anak berusia 1 bulan – 18 tahun terdiagnosis sindrom syok dengue berdasarkan kriteria WHO 2009 yang dirawat di ruang PICU RSUP Dr. Sardjito. Subyek penelitian merupakan pasien rujukan yang telah mendapatkan cairan kristaloid ringer laktat. Data penelitian diambil dari rekam medis bulan Januari 2015 – Juli 2017. Uji *Chi square* digunakan untuk mengetahui hubungan antara terapi cairan ringer laktat dengan hiponatremia serta hubungan *acute kidney injury* dengan hiponatremia.

Hasil: Dari 152 subyek penelitian didapatkan 59 (38,8%) anak sindrom syok dengue yang mengalami hiponatremia. Hiponatremia ringan merupakan 64,5% dari seluruh hiponatremia. Pemberian cairan RL 60ml/kg atau lebih tidak memiliki pengaruh yang bermakna terhadap kondisi hiponatremia (RR 0,97; IK 95% 0,66-1,47; $p=0,97$). *Acute kidney injury* didapatkan pada 8,6% subyek dan memiliki pengaruh yang bermakna terhadap hiponatremia (RR 2,45; IK 95% 1,76-3,39; $p=0,001$).

Kesimpulan: Pemberian terapi cairan ringer laktat 60ml/kg berat badan atau lebih tidak berhubungan dengan hiponatremia pada sindrom syok dengue.

Kata Kunci: cairan, ringer laktat, hiponatremia, sindrom syok dengue

ASSOCIATION BETWEEN RINGER LACTATE SOLUTION THERAPY AND HYPONATREMIA IN DENGUE SHOCK SYNDROME

ABTRACT

Background: Hyponatremia is the most common electrolyte disturbance in dengue shock syndrome. Administration of large amount of hypotonic crystalloid solution is one of the cause of hyponatremia in dengue shock syndrome besides acute kidney injury. Ringer lactate solution contains lower sodium concentration compared to serum.

Objective: To investigate the association between the amount of ringer lactate solution therapy with hyponatremia in dengue shock syndrome

Method: This was a retrospective cohort study conducted in pediatric subjects aged between 1 month to 18 years old who was having dengue shock syndrome according to WHO 2009 criteria and treated at PICU of Dr. Sardjito Hospital. The subjects were referral patients who had already been treated with ringer lactate solution. The data were acquired from medical records from January 2015 to July 2017. Chi Square test was used to analyze the association between ringer lactate solution therapy with hyponatremia

Results: From 152 research subjects, there were 59 (38.8%) pediatric patients with dengue shock syndrome who had hyponatremia. Mild hyponatremia was found in 64.5% of all hyponatremia cases. Administration of ringer lactate solution with a dose of 60 mL/kg or more had no significant effect on hyponatremia (RR 0.97; 95% CI 0.66-1.47; $p=0.97$). In addition acute kidney injury was found in 8.6% subjects and had a significant effect towards hyponatremia (RR 2.45; 95% CI 1.76-3.39; $p=0.001$).

Conclusions: Administration of ringer lactate solution 60 mL/kg or more was not associated with hyponatremia in dengue shock syndrome.

Keywords: *solution, ringer lactate, hyponatremia, dengue shock syndrome*