

INTISARI

Latar Belakang : Sindroma nefrotik merupakan suatu keadaan klinis yang ditandai dengan gejala proteinuria masif, hipoalbuminemia, edema dan dapat disertai hiperkolesterolemia. Proteinuria pada sindroma nefrotik anak terutama berupa albuminuria. Pada sindroma nefrotik juga dapat terjadi gangguan keseimbangan elektrolit. Komplikasi gangguan elektrolit dapat menyebabkan munculnya manifestasi klinis asimtomatik sampai dengan kematian. Saat ini belum banyak penelitian mengenai gangguan elektrolit pada sindroma nefrotik

Tujuan : Untuk mengetahui apakah terdapat hubungan antara kadar albumin dengan parameter elektrolit serum yaitu natrium, kalium, kalsium dan klorida pada anak dengan sindroma nefrotik

Metode : Penelitian ini merupakan penelitian observasional analitik dengan menggunakan desain *cross sectional*. Subyek terdiri dari 48 anak yang didiagnosis sindroma nefrotik di Instalasi Kesehatan Anak Rumah Sakit Umum Pusat Dr. Sardjito di Yogyakarta. Data yang dikumpulkan mencakup kadar albumin serum serta kadar elektrolit (natrium, kalium, kalsium, klorida). Untuk melihat keeratan hubungan antara kadar albumin dengan kadar elektrolit (natrium, kalium, kalsium, klorida) dilakukan analisis dengan menggunakan uji korelasi Pearson

Hasil Penelitian : Subyek terdiri dari 38 (79%) anak laki-laki dan 10 (21%) anak perempuan. Rerata kadar albumin serum $1.55 \pm 0,45$ g/dl, kadar natrium serum $134,91 \pm 5,53$ mmol/L, kadar kalium serum $4,15 \pm 0,65$ mmol/L, kadar klorida serum $101,87 \pm 6,78$ mmol/L dan kadar kalsium serum $1,93 \pm 0,16$ mmol/L. Terdapat hubungan yang bermakna antara kadar albumin serum $< 2,5$ g/dl dengan kadar natrium ($r=0,412$) dan kadar kalsium ($r=0,525$). Disisi lain, tidak terdapat hubungan antara kadar albumin dengan kadar kalium dan klorida serum. Analisis korelasi juga menunjukkan tidak terdapat hubungan antara kadar albumin serum $2.5 - 3.49$ g/dL dengan kadar elektrolit serum (natrium, kalium, kalsium, klorida).

Kesimpulan : Pada kadar Albumin $< 2,5$ g/dL, menunjukkan bahwa semakin rendah kadar albumin serum berhubungan dengan penurunan kadar natrium dan kalsium serum pada anak dengan sindroma nefrotik.

Kata Kunci : Albumin, Natrium, Kalsium, klorida, Kalium, sindroma nefrotik

ABSTRACT

Background: Nephrotic syndrome is a clinical condition that is characterized by symptoms of massive proteinuria, hypoalbuminemia, edema and can be accompanied by hypercholesterolemia. Proteinuria in pediatric nephrotic syndrome is mainly in the form of albuminuria. In nephrotic syndrome electrolyte balance disorders can also occur. Complications of electrolyte disturbances can cause asymptomatic clinical manifestations to death. The management of nephrotic syndrome patients, especially those associated with the condition of hypoalbuminemia with electrolyte disturbances is not widely known

Objective: To find out whether there is a relationship between serum albumin levels and serum electrolyte parameters, namely sodium, potassium, calcium and chloride in children with nephrotic syndrome

Method: This study was an observational analytic study using a cross sectional design. The subjects consisted of 48 children who were diagnosed with nephrotic syndrome at the Children's Health Installation Dr. Sardjito General Hospital in Yogyakarta. The data collected includes serum albumin levels and electrolyte levels (sodium, potassium, calcium, chloride). To see the closeness of the relationship between albumin levels and the levels of electrolytes (sodium, potassium, calcium, chloride), an analysis was performed using the Pearson correlation test.

Results: Subjects consisted of 38 (79%) boys and 10 (21%) girls. Mean serum albumin levels 1.55 ± 0.45 g / dl, serum sodium levels 134.91 ± 5.53 mmol / L, serum potassium levels 4.15 ± 0.65 mmol / L, serum chloride levels 101.87 ± 6.78 mmol / L and serum calcium levels 1.93 ± 0.16 mmol / L. There is a significant relationship between serum albumin levels <2.5 g / dl and sodium levels ($r = 0.412$) and calcium levels ($r = 0.525$). On the other hand, there is no relationship between albumin levels and potassium and serum chloride levels. Correlation analysis also showed no association between serum albumin levels $2.5 - 3.49$ g / dL with serum electrolytes (sodium, potassium, calcium, chloride).

Conclusion: Albumin levels <2.5 g / dL, indicating that lower serum albumin levels are associated with decreased serum sodium and calcium levels in children with nephrotic syndrome..

Keyword : Albumin, Sodium, Calcium, Chloride, Potassium, Nephrotic syndrome