INTISARI

Penyakit ginjal kronis adalah kondisi ireversibel penurunan fungsi ginjal dengan laju filtrasi kurang dari 60 ml/menit/1,73 m^2 minimal 3 bulan. Homosistein merupakan produk antara yang berasal dari metionin dan akhirnya diubah menjadi sistein. Rute utama pembersihan homosistein plasma adalah melalui ginjal, sehingga kadar homosistein pada pasien dengan penyakit ginjal kronis biasanya meningkat. Hiperhomosisteinemia menyebabkan peningkatan resiko timbulnya penyakit kardiovaskuler. Vitamin B berperan besar terhadap proses metabolisme homosistein, sehingga kekurangan vitamin ini berkaitan dengan terjadinya hiperhomosisteinemia.

Tujuan penelitian ini adalah mengukur dampak pemberian vitamin B1, B6, B12 parenteral terhadap proporsi hiperhomosisteinemia pasien gagal ginjal kronik yang menjalani hemodialisis di Rumah Sakit Bethesda dan Panti Rapih Yogyakarta. Penelitian dilakukan dengan desain *one group pretest-posttest* menggunakan data sekunder rekam medis hasil lab. Data didapatkan dari 117 pasien dengan metode *consecutive sampling*. Analisis data secara statistik dilakukan menggunakan program SPSS berlisensi dengan uji *McNemar's chi square*.

Dari hasil penelitian terdapat penurunan proporsi hiperhomosisteinemia yang bermakna setelah dilakukan pemberian vitamin B selama 2 minggu (70,94%; p=0,000) dan selama 4 minggu (66,38%; p=0,000). Kesimpulannya pemberian vitamin B1, B6, dan B12 dalam jangka waktu 2 minggu maupun 4 minggu dapat menurunkan proporsi hiperhomosisteinemia secara bermakna pada pasien gagal ginjal kronis yang menjalani hemodialisis.

Kata kunci: gagal ginjal kronis; hiperhomosisteinemia; vitamin B

ABSTRACT

Chronic kidney disease is a condition of irreversible decrease in kidney function with less than 60 ml / minute / 1.73 m2 filtration rate for at least 3 months. Homocysteine is an intermediate product derived from methionine and eventually converted to cysteine. The main cleaning route of plasma homocysteine is through the kidney, so the total homocysteine levels in patients with chronic kidney disease usually increase. Hyperhomocysteinemia can increase the risk of cardiovascular disease. Vitamin B plays a big role in the process of homocysteine metabolism, so deficiency of this vitamin is related to the occurrence of hyperhomocysteinemia.

The aim of this study was to measure the effect of parenteral administration of vitamin B1, B6, B12 on the proportion of hyperhomocysteinemia in patients with chronic kidney disease on hemodialysis at Bethesda and Panti Rapih Hospital Yogyakarta. The study was performed with one group pretest-posttest design using secondary data obtained from medical records of lab results. Data were obtained from 117 patients with consecutive sampling method. Data analysis was statistically carried out using licensed SPSS with McNemar's chi square test.

There was a significant decrease in the proportion of hyperhomocysteinemia after administration of vitamin B for 2 weeks (70,94%; p=0,000) and 4 weeks (66,38%; p=0,000). In conclusion, the administration of vitamin B1, B6, and B12 within 2 weeks and 4 weeks can significantly reduce the proportion of hyperhomocysteinemia in patients with chronic renal failure undergoing hemodialysis.

Keywords: chronic renal failure; hyperhomocysteinemia; vitamin B