

PERBEDAAN HASIL PEMERIKSAAN KADAR KREATININ SAMPEL SERUM DAN PLASMA EDTA SEBELUM HEMODIALISIS

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ABSTRAK

Pemeriksaan ureum dan kreatinin pada pasien gagal ginjal dengan hemodialisis seharusnya dilakukan sebelum dan sesudah hemodialisis di hari yang sama saat dilakukan hemodialisis. Biaya operasional yang mahal membuat pemeriksaan hanya dilakukan setelah terapi hemodialisis. *The National Kidney Disease Education Program* merekomendasikan penggunaan serum kreatinin untuk mengukur kemampuan filtrasi glomerulus, dan untuk memantau perjalanan penyakit ginjal. Bahan pemeriksaan adalah serum, namun karena keterbatasan sampel sering digunakan bahan plasma EDTA. Tujuan penelitian untuk mengetahui perbedaan hasil pemeriksaan kadar kreatinin sampel serum dan plasma EDTA sebelum hemodialisis. Jenis penelitian analitik dengan pendekatan cross sectional. Populasi penelitian adalah semua pasien pre hemodialisis pada bulan Juli 2017. Sampel penelitian sebanyak 16 sampel yang memenuhi kriteria inklusi, yaitu pasien HD dengan data lengkap yang periksa kreatinin. Pemeriksaan kadar kreatinin sampel serum dan plasma dilakukan dengan *chemistry analyzer*. Hasil penelitian diperoleh kadar kreatinin serum rerata 11,73 mg/dl, simpang baku 3,582. Kadar kreatinin plasma EDTA rerata 11,70 mg/dl, simpang baku 3,545. Hasil uji Paired t Test disimpulkan tidak terdapat perbedaan bermakna pada kadar kreatinin sampel serum dengan sampel plasma EDTA ($p>0,05$). Hasil penelitian kadar kreatinin plasma sedikit lebih tinggi dibanding kreatinin serum. Tidak terdapat perbedaan bermakna pada kadar kreatinin sampel serum dengan sampel plasma EDTA.

Kata kunci : kreatinin, serum, plasma

THE DIFFERENCE OF EXAMINATION RESULT OF CREATININ LEVEL ON SERUM AND EDTA PLASMA SAMPLE BEFORE HEMODIALYSIS

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ABSTRACT

Urea and creatinine examination on kidney failure patients with hemodialysis should be done before and after hemodialysis on the same day when hemodialysis is performed. Expensive operational cost makes the examination only performed after hemodialysis therapy. The National Kidney Disease Education Program recommends the use of serum creatinine to measure glomerular filtration ability, and to monitor the journey of kidney disease. The examination material is serum, but because of sample limitation, EDTA plasma material is often used. The research goal is to know the difference of examination result of creatinin level on serum and EDTA plasma sample before hemodialysis. The research type is analytic with cross sectional approach. The research population was all of pre hemodialysis patients in July 2017. The research samples were 16 samples that meet the inclusion criteria, namely HD patients with complete data who check the creatinine. The examination of creatinin level on serum and plasma sample was done by chemistry analyzer. The research result was obtained that average of serum creatinine level was 11,73 mg/dl, standard deviation was 3,582. The average of creatinine level on EDTA plasma was 11,70 mg/dl, standard deviation was 3,545. The result of Paired t Test was concluded that there was no significant difference in creatinine level of serum sample and EDTA plasma sample ($p > 0,05$). The research result is plasma creatinine level was slightly higher than serum creatinine. There was no significant difference on creatinin level on serum sample and EDTA plasma sample.

Keywords: *creatinine, serum, plasma*