

PEMERIKSAAN KADAR FOSFAT PADA PASIEN GAGAL GINJAL KRONIK

(PHOSPHATE LEVEL EXAMINATION OF CHRONIC KIDNEY FAILURE PATIENTS)

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INTISARI

Ramawati, F.R. 2018. Pemeriksaan Kadar Fosfat Pada penderita Gagal Ginjal Kronik. Karya Tulis Ilmiah, Program Studi D-III Analis Kesehatan, Universitas Setia Budi. Pembimbing: dr. Ratna Herawati.

Gagal ginjal kronik adalah suatu sindrom klinis yang disebabkan penurunan fungsi ginjal yang bersifat menahun, berlangsung progresif dan cukup lanjut. Pada gagal ginjal kronik, ginjal yang rusak tidak dapat membentuk *25-hidroksikolekalsifero* menjadi *1-25-dihidroksikolekalseferol*, suatu bentuk aktif utama vitamin D. Tanpa Vitamin D, kalsium dan fosfat tidak dapat diabsorpsi dan jumlah kalsium akan menurun, sehingga kelenjar paratiroid akan mengeksresikan hormon paratiroid (*hiperparatiroidisme*) untuk mengaktifkan kadar kalsium darah, bila konsentrasi kalsium naik lebih tinggi akan menyebabkan penumpukan garam-garam fosfat yang ditimbun dalam tulang sehingga menyebabkan retensi ion fosfat atau Hiperfosfatemia dan berperan menimbulkan osteomalasia. Tujuan penelitian ini adalah untuk mengetahui adanya peningkatan kadar fosfat pada penderita gagal ginjal kronik.

Karya Tulis Ilmiah ini disusun berdasarkan hasil pemeriksaan kadar fosfat yang dilakukan di Laboratorium Universitas Setia Budi Surakarta terhadap 30 sampel serum penderita gagal ginjal kronik yang melakukan hemodialisa di RSUD Kab. Sukoharjo dan ditunjang oleh pustaka yang telah dipublikasikan. Kadar fosfat diperiksa dengan metode Reaksi Fosfomolybdate direk tanpa deproteinisasi.

Hasil pemeriksaan kadar fosfat pada 30 sampel penderita gagal ginjal kronik dapat disimpulkan bahwa terdapat 26 pasien (86.67%) yang mengalami peningkatan kadar fosfat, sedangkan 4 pasien (13.33%) kadar fosfat normal.

Kata kunci : Kadar fosfat, gagal ginjal kronik.

ABSTRACT

Ramawati, F.R. 2018. Phosphate Level Examination of Chronic Kidney Failure Patients. Scientific Paper, Medical Laboratory Technology Diploma Program, Faculty of Health Sciences Setia Budi University . Adviser: dr. Ratna Herawati.

Chronic kidney failure is a clinical syndrome caused by chronic, progressive and advance decreased renal function. In chronic renal failure, a damage kidney is unable to form 25-hydroksikolekalsifero to 1-25-dihydroksikolekalseferol, a major active form of vitamin D. With the absence of vitamin D, calcium and phosphate cannot be absorbed and the level of calcium will fall, therefore the parathyroid gland will excrete parathyroid hormone (hyperparathyroidism) to activate the level of calcium in blood. When the level of calcium rises higher, it will cause phosphate retention in the bone. This condition will lead to retention of phosphate ions or Hyperphosphatemia and it has a role of causing osteomalacia. The aim of this study is to find out the elevation of phosphate level in patients with chronic renal failure.

This scientific paper is compiled based on the result of phosphate level examination conducted in Setia Budi University's laboratory to 30 samples of serum taken from patients with chronic renal failure who did dialysis in a Regional Public Hospital RSUD Sukoharjo and supported by qualified sources that has been published. Phosphate level examination was conducted with Direct Phosphomolybdate Reaction without Deproteinization Method.

The result of phosphate level examination in 30 samples of patients with chronic renal failure indicated 26 patients (86.67%) developed elevated phosphate level, while 4 patients (13.33%) developed normal phosphate level.

Key Words : *Phosphate level, chronic kidney failure.*