

INTISARI

HUBUNGAN ADEKUASI HEMODIALISIS TERHADAP KADAR FERITIN PADA PENDERITA GAGAL GINJAL KRONIK YANG MENJALANI HEMODIALISIS RUTIN DI RSUP DR. SARDJITO

Ryan Andrianto¹, Iri Kuswadi², Heru Prasanto³

PPDS Ilmu Penyakit Dalam¹ Subbagian Ginjal Hipertensi, SMF Ilmu Penyakit Dalam²
Subbagian Nefro, SMF Ilmu Penyakit Dalam³

Fakultas Kedokteran, Kesehatan Masyarakat dan Keperawatan UGM/RSUP Dr.
Sardjito Yogyakarta

Latar Belakang: Hemodialisis (HD) masih merupakan terapi pengganti ginjal utama bagi penderita Penyakit Ginjal Kronis (PGK) di sebagian besar negara di dunia. Adekuasi hemodialisis yang dinilai dengan nilai Kt/V menjadi target dosis dialisis. Pada pasien PGK, kadar feritin serum hampir selalu meningkat dibandingkan subjek nonuremik, dan meningkat lebih tinggi akibat inflamasi. Kehilangan besi meningkat akibat perdarahan dan deskuamasi, dan beberapa kali lipat lebih tinggi setelah hemodialisis. Keseimbangan besi yang terganggu menyebabkan transferin menjadi setengah atau sepertiga dari kadar normal, sehingga menghilangkan kapasitas sistem transpor besi yang kemudian terjadi blokade transpor besi dari organ retikuloendotelial yang akhirnya menyebabkan feritin tinggi. Penelitian ini diharapkan mampu memberikan bukti adekuasi hemodialisis akan memberikan pengaruh terhadap kondisi dan kualitas hidup pasien yang menjalani hemodialisis rutin terhadap feritin yang berhubungan erat dengan kecukupan zat besi.

Tujuan Penelitian: Mengetahui hubungan adekuasi hemodialisis terhadap kadar feritin pada pasien gagal ginjal kronik yang menjalani hemodialisis rutin.

Metode Penelitian: Penelitian observasional dengan pendekatan potong lintang yang melibatkan 74 penderita PGK di instalasi Hemodialisis RSUP Dr. Sardjito pada bulan April hingga Oktober 2019. Data karakteristik dasar diambil melalui rekam catatan medik. Diambil dua kelompok subjek yaitu hemodialisis adekuat dan hemodialisis tidak adekuat, lalu dilihat berapa nilai feritin dari dua kelompok tersebut. Analisis data dengan SPSS versi 22 dengan nilai kemaknaan $p < 0,05$ dan interval kepercayaan 95%. **Hasil Penelitian:** Pada studi ini didapatkan subjek pada kelompok hemodialisis adekuat sebanyak 16 (22 %) dan hemodialisis tidak adekuat sebanyak 58 (78,4%). Pada kelompok HD yang adekuat dengan kadar feritin tinggi sebanyak 2 orang (14,3%) dan kadar feritin normal sebanyak 9 orang (26,5 %). Pada kelompok HD tidak adekuat dengan kadar feritin tinggi sebanyak 12 orang (85,7%) dan kadar feritin normal sebanyak 25 orang (73,5 %). Uji korelasi Pearson menunjukkan tidak adanya hubungan yang signifikan antara adekuasi hemodialisis dengan kadar feritin ($r = -0,216$; $p = 0,064$).

Kesimpulan: adekuasi hemodialisis tidak berhubungan negatif secara signifikan terhadap kadar feritin.

Kata kunci: Penyakit Ginjal Kronik, Hemodialisis, Adekuasi Hemodialisis, Feritin, nilai Kt/V

ABSTRACT

ASSOCIATION BETWEEN HEMODIALYSIS ADEQUACY AND FERRITIN LEVEL IN CHRONIC KIDNEY FAILURE PATIENTS UNDERGOING ROUTINE HEMODIALYSIS IN DR. SARDJITO GENERAL HOSPITAL

Ryan Andrianto¹, Iri Kuswadi², Heru Prasanto².

Resident of Internal Medicine¹ Division of Kidney Hypertension, Department of Internal Medicine² Division of Nephrology, Department of Internal Medicine³

Faculty of Medicine, Public Health and Nursing Gadjah Mada University/Dr Sardjito General Hospital Yogyakarta

Background: Hemodialysis (HD) is still the main renal replacement therapy for people with chronic kidney disease (CKD) in most countries in the world. Adequacy hemodialysis assessed value of Kt/V becomes the target dose of dialysis. In patients with CKD, serum ferritin levels always higher than nonuremic subject, and rise higher due to inflammation. Iron loss increases due to bleeding and desquamation, and is several orders of magnitude higher after hemodialysis. Disrupted iron balance causes transferrin to be half or one third of normal levels, so capacity of iron transport system which then occurred blockade of transport of iron from reticuloendothelial organs that ultimately lead to high ferritin. This study is expected to provide evidence of adequacy of hemodialysis have an impact on condition and quality of life patients undergoing regular hemodialysis to ferritin is closely related to the adequacy of iron.

Objective: To evaluate association between adequacy of hemodialysis and ferritin levels in patients with chronic renal failure undergoing hemodialysis routine.

Methods: This observational study with cross sectional approach involving 74 patients with CKD in the installation Hemodialysis Hospital Dr. Sardjito from April to October 2019. Basic characteristics of data retrieved through the records of medical records. Taken two groups of subjects, namely adequacy hemodialysis and inadequate hemodialysis, then see how the value of the two groups of ferritin are. Data analysis using SPSS version 22 with a significance value of $p < 0.05$ and a 95% confidence interval. Result: in this study, 16 (22 %) of subjects were in adequate hemodialysis group and 58 (78.4 %) of in inadequate hemodialysis. Adequate HD group with high ferritin levels of 2 people (14.3 %) and normal ferritin levels of 9 people (26.5%). In the inadequate HD group with high ferritin levels were 12 people (85.7%) and normal ferritin levels were 25 people (73.5%) . Pearson's correlation test showed no significant relationship between adequate hemodialysis and ferritin levels ($r = -0.216$; $p = 0.064$).

Conclusion: Hemodialysis adequacy does not have a significant negative relationship to ferritin level.

Key words: Chronic Kidney Disease, Hemodialysis, Hemodialysis Adequacy, Ferritin, Kt/V value