

유지혈액투석 환자에서 망상적혈구혈색소량의 의미

성균관의대 강북삼성병원 내과

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The Implication of Reticulocyte Hemoglobin Content in Maintenance Hemodialysis Patients

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Objective: Iron deficiency is one of the most important factors causing erythropoietin hyporesponsiveness. According to the K/DOQI guideline, absolute iron deficiency correlates with $TSAT \leq 20\%$ or serum ferritin ≤ 100 ng/ml or $CHr < 29$. The aim of this study is to examine the relationship between CHr and other parameters associated with iron deficiency in maintenance hemodialysis patients.

Methods: Sixty-three patients undergoing hemodialysis were enrolled in this study. Blood samples for laboratory testing were obtained prior to the first-of-the-week hemodialysis session. Correlations among CHr , age, $mCHr$, Hb, MCV, MCHC, albumin, iron, Kt/V , Hct, ferritin, TIBC and T-sat were analyzed by Pearson correlation coefficient and regression analysis. Patients were divided into 4 groups according to their T-sat and ferritin levels. (group 1: $Tsat < 0.2$ & ferritin < 100 , group 2: $Tsat < 0.2$ & ferritin ≥ 100 , group 3: $Tsat \geq 0.2$ & ferritin < 100 , group 4: $Tsat \geq 0.2$ & ferritin ≥ 100) CHr levels were compared among these 4 groups by ANOVA.

Results: The mean CHr was 33.1 ± 1.9 . CHr was related to $mCHr$ ($p < 0.001$), MCV ($p < 0.001$), MCHC ($p < 0.001$), iron ($p < 0.001$), ferritin ($p = 0.016$) and T-sat ($p = 0.013$). In regression analysis including these variables, MCV ($p < 0.001$), MCHC ($p < 0.001$) and iron ($p = 0.008$) were significantly related to CHr . Mean CHr levels were 31.35 (group 1), 33.545 (group 2), 33.379 (group 3) and 33.8 (group 4). The level was significantly lower in group 1 ($Tsat < 0.2$ & ferritin < 100 , $p < 0.001$).

Conclusion: Although CHr is not used in usual clinical practice, it was related to parameters representing iron deficiency in Korean hemodialysis patients. Further research is needed to verify the usefulness of CHr in predicting iron deficiency in hemodialysis patients.

Key Words: 망상적혈구혈색소량, 철결핍, 혈액투석
 CHr , Iron deficiency, Hemodialysis