

## 전체 림프구수와 림프구아수 검사는 혈액투석환자의 영양상태 평가에 도움이 된다

고신대학교 의과대학 내과학교실

한유진, 구상건, 김예나, 신호식, 정연순, 임학

### Evaluation of Total Lymphocyte Count (TLC) and Subpopulation Lymphocyte Counts (SLCs) may be Helpful in Monitoring the Effectiveness of Nutrition in HD Patients

You Jin Han, Sangeon Gwoo, Ye Na Kim, Ho Sik Shin, Yeon Soon Jung, Hark Rim

Department of Internal Medicine, Kosin University College of Medicine

**Background:** Nutritional risk is one of the strongest predictors of morbidity and mortality in maintenance hemodialysis (HD) patients; thus, nutritional status evaluations and nutritional management are essential clinical procedures for managing these patients. In the present study, we evaluated correlations between total lymphocyte count (TLC) and subpopulation lymphocyte counts (SLCs) and nutritional status parameters in HD patients.

**Methods:** This study was conducted in 50 stable HD patients with a mean age of  $55.8 \pm 12.7$  years. Their HD duration was  $59.7 \pm 52.9$  months. We collected clinical data such as sex, age, BMI, presence of diabetes mellitus, and laboratory results from the subjects' charts. The SLCs were evaluated using flow cytometry. The analyses included CD3 cells (T lymphocytes), CD4 cells (helper lymphocytes), CD8 cells (cytotoxic suppressor lymphocytes), and CD19 cells (B lymphocytes). Correlation analyses were performed using the Spearman coefficient.  $p$  Values  $< 0.05$  were considered statistically significant.

**Results:** TLC correlated positively with urea reduction ratio (URR), hemoglobin (Hb), and total iron-binding capacity (TIBC). CD 3 and CD 4 counts correlated positively with Hb, TIBC, and albumin but negatively with ferritin. CD 8 and CD 19 counts correlated positively with Kt/V and URR. We observed no correlations between TLC or SLCs and blood urea nitrogen, body mass index, or serum concentrations of calcium and cholesterol.

**Conclusion:** Evaluation of TLC and SLCs may aid in monitoring the effectiveness of nutrition in HD patients.

**Key Words:** 림프구수, T림프구, B림프구, 혈액투석, 영양상태

Lymphocyte count, T B lymphocyte, HD, Nutritional status

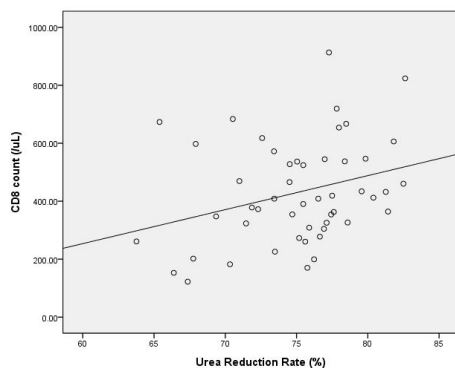


Fig. 1. Correlation between CD 8 count and URR ( $r=0.299$ ,  $P=0.035$ ).

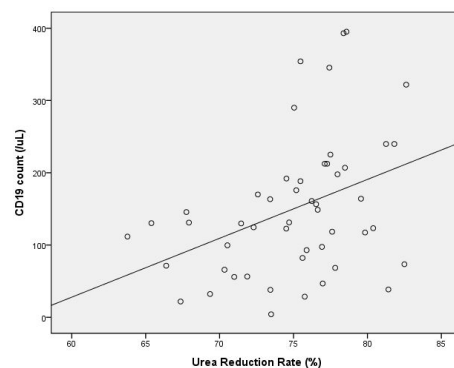


Fig. 5. Correlation between CD 19 count and URR ( $r=0.382$ ,  $p=0.006$ ).