KJIM

SUPPLEMENTARY METHODS

Justification of the covariates selected for the Cox proportional hazard regression models

The Cox regression analysis was initially performed without adjustment and then performed again after adjusting for several covariates. Since a large number of covariates of interest could affect the result and the relatively small sample size with low cardiovascular (CV) event rates in each tertile, a continuous variable of plasma oxalic acid (POx) concentration was entered into the models. Moreover, considering the fact that CV event rates were relatively low, we avoided overfitting the model by selecting well-established CV disease predictors or variables with p values < 0.3 obtained in the univariate analysis for adjusting for the covariates in the multivariate Cox Regression analysis (Supplementary Table 1). Then, we evaluated potential collinearity effects among the selected variables in the Cox regression model using variance inflation factors (VIFs). The variables with VIF > 5 were excluded to avoid bias estimation.

Sensitivity analysis

A set of different types of sensitivity analyses were performed to evaluate the validity of our findings due to the small sample size of the entire cohort.

First, the receiver operating characteristic (ROC) analysis was performed to determine the optimal cut-off point of POx concentration for predicting CV events and assess the discriminative performance of the models obtained in the main analysis. Second, the cumulative incidence function from Gray's test was used to compare the results obtained from the Kaplan-Meier analysis. Third, since the lipid profile parameters demonstrated severe multicollinearity with CV events and the pro-inflammatory markers that might affect the result, all lipid profile parameters were recorded as one categorical variable according to the presence of atherogenic dyslipidemia. We then repeated the Cox regression analysis using the Efron method as an alternative approach. For this purpose, the triglyceride variable was excluded from Model 2 and additionally adjusted for dyslipidemia. In the end, the new model included: POx divided at its cut-off point obtained in the ROC analysis, age, sex, dialysis modality, diabetic and dyslipidemia statuses, systolic blood pressure, body mass index, serum uric acid, hemoglobin, and interleukin-6. Fourth, we excluded the patients with diabetes (n = 10) and rerun the main analysis in the patients without diabetes. Finally, the effect size in the *post hoc* test was computed to determine the differences between the groups in the Cox regression analysis and calculate the required sample size for future large-scale research.