Malnutrition and comorbidity in chronic hemodialysis patients: A retrospective cohort study

Malnutrition is one of the main risk factors of mortality among Hemodialysis (HD) patients and several studies have documented that 20-60% of these patients are malnourished. Serum albumin and normalized protein catabolic rate (nPCR), are routinely used to assess nutritional status in HD patients. However, none of the currently nutritional markers has been associated to the comorbidity status in HD patients. nPCR is a measure of dietary protein intake and is calculated by using the K/DOQI formula. Due to the lack of detailed evidence, we investigated the impact of comorbidity status on nPCR values in a retrospective study involving 57 HD patients by using Charlson Comorbidity Index (CCI). Usually a Low CCI indicates a score of ≤3, while high CCI indicates a score of ≥7. In our study, we compared nPCR values of January 2015, January 2016 and January 2017 between patients with CCI<7 (group 1 n 27) and ≥7 (group 2 n 30), in order to assess if comorbidity status may affect protein catabolism. The CCI was calculated at the beginning of each year, while nPCR was obtained from a single dialysis session in the second half of January over three years. nPCR values between groups 1 and 2 across the years from 2015 to 2017 don’t show significant differences as evaluated by U-Mann Whitney test and respectively p 0.93, p 0.82 and p 0.72. Furthermore, Spearman Coefficients don’t report any correlation between the two variables: in 2015 Spearman Coefficient -0.30; p 0.82; in 2016 Spearman Coefficient – 0.08; p 0.51; in 2017 Spearman Coefficient -0.16; p 0.21. In conclusion, comorbidity status doesn’t seem to affect or to be correlated with malnutrition in HD patients.

Biography
Leonardo Spatola completed his Medical Degree at University of Palermo in 2009, then Nephrology Specialization at University of Verona in 2015. He currently works as a Nephrologist in the Renal and Haemodialysis Unit at Humanitas University in Milan, Italy. He is first author of several works indexed in PubMed/Medline and he is referee for Kidney and Blood Pressure Research Journal and Saudi Journal of Kidney Disease and Transplantation.

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