Nephrology Dialysis Transplantation 30 (Supplement 3): iii604–iii630, 2015
doi:10.1093/ndt/gfv200.30

DIALYSIS. EPIDEMIOLOGY, OUTCOME RESEARCH, HEALTH SERVICES RESEARCH - 2

SP711 **COMPREHENSIVE COMPARISON OF CARDIOVASCULAR IMAGING TOOLS AND BIOMARKERS FOR RISK PREDICTION IN HD PATIENTS: IMT BEETS THEM ALL**

Georg Schlieper[1], Beate Frisch[1], Zivka Djuric[2], Nada Dimkovic[2] and Juergen Floege[1]
[1]Uniklinik RWTH Aachen, Nephrology, Aachen, Germany, [2]Zvezdara University Medical Center, Centers for Renal Diseases, Belgrade, Serbia

Introduction and Aims: Hemodialysis patients have a dramatically increased all-cause and cardiovascular mortality risk. However, the best risk assessment is unknown. This study aimed to perform a comprehensive comparison of cardiovascular imaging techniques and traditional and non-traditional serum risk factors with respect to their impact on all-cause and cardiovascular mortality.
Methods: Data from 220 hemodialysis patients (mean age 59±11 y) were analyzed with a mean follow-up period of 692 days. Both single calcification sites (peripheral arteries and heart valves) and calcification scores (e.g. Adragao), ejection fraction, pulse wave velocity, intima media thickness (IMT) and traditional and non-traditional serum risk factors were assessed. All parameters that were included into the final model were further statistically analysed by Cox regression.
Results: Predictors for all-cause mortality included IMT, the Adragao Score, CRP, age and gender. For cardiovascular mortality IMT, calcification scores, BNP, troponin T and hsCRP were significant predictors. In both models IMT showed the strongest impact for risk assessment (hazard ratio 123 and 79; confidence interval 7-2280 and 1-5400 for total and cardiovascular mortality, respectively; figure 1).
Conclusions: IMT may serve as an effective screening tool to evaluate dialysis patients' risk for death and should be evaluated in other cohorts, as IMT is easy to assess, inexpensive and not time-consuming.