

Kidney Congress 2018: Lipid disorders in hospitalized patients with chronic kidney disease - Eleni Chelioti, Evdokia Efthimiou, Ioannis Xantzis, Apostolos BIlis, Thomas Telios, Vasileios Moutsos, Maria Tsilivigkou -General Hospital of Piraeus ''Tzaneio'', Athens, Greece. Renal Unit, Frontis, Piraeus, Greece

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Kidnev disease patients often present with dyslipidemia. Lipid profile abnormalities differ between spectrums of kidney disease and are aggravated by comorbidities such as diabetes. Dyslipidemia is considered an important contributor to the increased cardiovascular mortality and constitutes an essential therapeutic target for nephrology patients. The propose of this study was to determine the lipid abnormalities of kidney disease patients who were admitted to our Nephrology ward in the past five years. We studied 450 patients with chronic kidney disease and hypertension (180 women, 40% and 270 men 60% , mean age  $65\pm25$  years). Mean eGFR was  $40\pm12$ ml/min/1.73m<sup>2</sup> The parameters determined and analyzed were: total-cholesterol (<180mg/dl), LDLcholesterol (<100mg/dl) and triglycerides (<150mg/dl). All patients were receiving treatment for regulating dyslipidemia. The percentage of patients with total cholesterol, LDL-cholesterol and triglycerides within the recommended targets were 30%, 15% and 36% Total cholesterol respectively. above the recommended targets had the 315 of patients (189 men, 60% and 126 women, 40%). 382 patients had LDLcholesterol over the targets (48 men, 65% and 134 women, 35%). High levels of triglycerides has been found at 288 patient (167men ,58% and 121 women, 42%). There is a low percentage of our patients that non achieved the recommended targets, despite the fact that they receiving treatment and remain disregulated. Certainly in patients with chronic kidney disease and dyslipidemia the periodical monitoring of the lipid profile is required for a proper regulation.

The high prevalence of cardiovascular disease (CVD) in patients with kidney disease is well described. This Canadian, multicenter, observational cohort study reports the prevalence and risk factors of CVD associated with kidney disease, in a cohort of patients with established chronic kidney disease (CKD), who are followed-up by nephrologists. This

analysis sought to answer 2 questions: (1) in patients with established CKD, are the prevalence and progression of CVD accounted for by conventional or uremia-related risk factors, and (2) to what extent can progression to renal replacement therapy (RRT) be explained by CVD versus traditional risk factors for kidney disease? This study population consists of 313 patients (predominantly men) who had a mean age of 56 years and a mean creatinine clearance of 36 mL/min. Thirty percent were diabetic. The overall prevalence of CVD was 46%, and was independent of severity of kidney dysfunction (P = 0.700). The median follow-up time was 23 months, for a total of 462 patient years. We note the overall incidence of CVD events (new CVD or worsening of CVD) was 47/244 (20%). The best predictors of new CVD events among those without preexisting CVD were diabetes (odds ratio [OR] = 5.35, P = 0.018) and age (OR = 1.26, P = 0.08). In those with preexisting CVD, low diastolic pressure (DP) (OR = .72, P = 0.004) and high triglycerides (OR = 1.48, P = 0.019) at baseline were independent predictors of progression of CVD. We could not determine an independent impact of kidney function on CVD in the overall cohort. Furthermore, we determined that the presence of CVD itself confers an increased risk for progression to RRT (relative risk [RR] = 1.58, P = 0.047), adjusted for kidney function. This is the first in-depth analysis of CVD in a cohort of patients with established chronic kidney disease who are not on dialysis. The question regarding the impact of the altered biology of uremia in contributing to CVD progression remains unanswered, and clearly needs further study. However, the findings do raise the issue of whether aggressive treatment of CVD and risk factors might, in fact, reduce progression to RRT. Further large-scale, observational studies as well as interventional studies are needed to more clearly understand the complex biology of cardiovascular and kidney disease progression.

To investigate the prevalence of chronic kidney disease (CKD) by stage in Chinese patients with coronary heart disease (CHD) and to identify the clinical features and examine control of cardiovascular risk factors. Methods and results: Clinical data of hospitalized patients were collected by investigators in China. CKD stages were classified according to estimated glomerular filtration rate (eGFR). A total of 2509 participants with CHD were included in the final statistical analysis. The overall prevalence of CKD stage 3 and greater (eGFR of less than 60 mL/min/1.73 m2) in the CHD patients was 32.5%. As the CKD stage increased, fasting blood glucose (FBG), systolic blood pressure (SBP), diastolic blood pressure (DBP), and high-sensitivity C-reactive protein (HS-CRP) levels all worsened. As the CKD stage became more severe, CHD patients had comorbidities such as diabetes mellitus, periphery arterial disease, and ischemic stroke, and more CHD patients had triple vessel disease increased. Even when patients received treatment of CHD and risk factors, control of cardiovascular risk factors such as SBP, DBP, FBG, and low-density lipoprotein was worsened as CKD stage became more severe over a 6-week follow-up. Conclusions: The data suggested a high prevalence of CKD in Chinese patients with CHD. Many conventional risk factors and comorbidities were correlated with high prevalence of CKD in CHD patients. Control of cardiovascular risk factors in those patients was poor.

Atherosclerotic diseases are systemic diseases, which may involve coronary heart disease (CHD), periphery arterial disease (PAD), carotid atherosclerotic disease, and atherosclerotic diseases in other arteries, and are the main causes of mortality worldwide. In the past years, atherosclerotic diseases, especially CHD, had been regarded as the major cause of death in the Chinese population. CHD is often accompanied by many risk factors and comorbidities such as smoking, diabetes mellitus (DM), lipid disorders, hypertension, obesity, and renal dysfunction.

Chronic kidney disease (CKD) is also one of the important health concerns and is among the leading causes of death in industrialized world. The increased prevalence of CKD has placed an increased burden on citizens of China. In China, CHD has been one of Short Communication Vol. 3, Iss. 2 2020

the most important causes of death among dialysis patients and the prevalence of CHD increases in all stages of CKD. Many evidence indicates that CHD risk was dramatically increased in individuals with even minor renal dysfunction. CKD was strongly associated with cardiovascular end-points including total mortality. Patients with CHD accompanied by CKD had severe clinical conditions and had higher rate of cardiovascular events.

Thus, we carried out this multicenter study to investigate the clinical features of Chinese patients with CHD and CKD and evaluated the medical treatments in those patients. It will help to provide a scientific basis for the secondary prevention of CHD accompanied by CKD in Chinese population.