

Coronary Artery Disease In Maintenance Hemodialysis Patients: Are We Acting Too Late?

Jorge Paulo Strogoff de Matos,¹ Jocemir Ronaldo Lugon¹

Nephrology Division, Department of Medicine, Medical School, Universidade Federal Fluminense,¹ Niterói, RJ – Brazil

Editorial referring to the article: Evaluation of Different Therapeutic Approaches for Acute Coronary Syndromes in Patients Undergoing Chronic Dialysis: A Retrospective Cohort Study

The study by França *et al.*¹ confirms the well-known high prevalence of Coronary Artery Disease (CAD) and the high mortality rate among patients with Chronic Kidney Disease (CKD) undergoing maintenance hemodialysis, which is mainly due to cardiovascular causes. The authors also found a significantly higher crude mortality rate among those who were not under statin use. However, this should be cautiously interpreted since no adjustment was made for confounding factors, and a bias cannot be ruled out, for example, that statins were not prescribed to those patients with a very low remaining life expectancy who would likely not benefit from the therapy.

The population undergoing renal replacement therapy is increasing worldwide. In Brazil alone, there are currently more than 150,000 patients on maintenance dialysis.² In general, these patients are stratified and treated for CAD based on guidelines derived mainly from evidence from clinical trials in which, due to the study design, patients on dialysis therapy or those with advanced CKD were excluded.³

Several clinical trials addressing the dialysis population have had frustrating results, failing to confirm the benefits found in similar studies in the general population, such as the use of statins.^{4,5} The mortality rate among hemodialysis patients is so high, on the order of more than 15% per year,² both from cardiovascular and non-cardiovascular causes, which makes it plausible to think that we are arriving too late to adequately treat them and change the course of the disease.

Patients living under renal replacement therapy are unique, having many peculiarities, and the known risk factors for cardiovascular diseases are quite different from those of the general population. For example, while obesity is a well-known risk factor in the general population, among patients undergoing maintenance hemodialysis, it is exactly the opposite, with an inverse correlation between body mass index and the risk of death.⁶ The reasons for this apparent paradox are still not well understood. On the other hand, in a clinical trial with patients with advanced CKD, but still in the pre-dialytic stages, the use of statin plus ezetimibe significantly reduced the risk of death.⁷ This suggests that preventive measures for CAD should be taken much earlier. However, this depends on the appropriate diagnosis and monitoring of these patients, regarding both CKD and CAD.

Unfortunately, most patients, including those in Brazil, are diagnosed with CKD at a very advanced stage, often already requiring urgent initiation of dialysis.⁸ Improving screening and earlier diagnosis of both CKD and CAD, and consequently a more effective therapeutic approach, depends on greater interaction among the medical specialties that most frequently care for these patients, namely cardiology, nephrology, and endocrinology, since diabetes and hypertension are the main causes of CKD and strong risk factors for CAD.

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Keywords

Coronary Artery Disease; Chronic Renal Insufficiency; Renal Dialysis

Mailing Address: Jorge Strogoff •

Universidade Federal do Rio de Janeiro. Av. Pedro Calmon, nº 550. Postal code: 21941-901. Rio de Janeiro, RJ – Brazil

E-mail: strogoff@uol.com.br

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