The Importance of Early Nephrology Referral of Patients with Chronic Kidney Disease

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Abstract

Late referral of patients with chronic kidney disease (CKD) to the Nephrologist is associated with higher mortality. We have evaluated the impact of early referral to Nephrologist in a specialized health care service in Fortaleza, Ceará, Brazil. A total of 98 patients were analyzed. Mean age was 60.9±5 years, and the majority of them were female (56.1%). The majority of patients was in stage III of CKD (43.8%), followed by stage II (24.4%). In the re-evaluation, after 6 months of follow-up, 37.9% of patients had renal function improvement and were classified in a new CKD stage. Early Nephrologist referral seems to be adequate and can be associated with lower incidence of complications, need of dialysis and mortality.

Introduction

The natural history of chronic kidney disease (CKD) is characterized by its progression until advanced stages, with renal replacement therapy need, including dialysis and transplant [1]. With CKD progression there is also an increase in adverse cardiovascular events, the main cause of mortality in this group of patients [2]. Late referral to Nephrologist is associated with increased mortality [3], and studies in Brazil evidences that there is still inadequate referral to Nephrologist [4]. We have evaluated the impact of early referral to Nephrologist in a specialized health care service in Fortaleza, Ceará, Brazil.

Methods

During the World Kidney Day campaigns in 2013 and 2014 in Fortaleza, Ceará, Brazil, a screening for CKD was done, and individuals presenting risk factors for CKD were referred to Nephrologist evalu-
tion at the Núcleo de Atenção Médica Integrada, University of Fortaleza. Subsequently, a review of their medical records was done, to evaluate clinic-laboratorial evolution after this early referral and regular follow-up for at least 6 months.

Results
A total of 98 patients were analyzed, with mean age of 60.9±5 years, and the majority of them were female (56.1%). The majority of patients was on CKD stage III (43.8%), followed by stage II (24.4%). Systemic arterial hypertension (SAH) was the main cause of CKD (85.7%), followed by diabetes mellitus - DM (43.8%). Association between SAH and DM was found in 29.5% of cases. Nephroprotective antihypertensive drugs (angiotensing-converting enzyme inhibitors or angiotensin II receptor blockers) were being used by 56.1% of patients. In the re-evaluation, after 6 months of follow-up, 37.9% of patients had renal function improvement and were classified in a new CKD stage (Figure 1). There was also improvement of clinical data, including improvement in hemoglobin levels, blood pressure levels decrease and weight reduction, after adopting new therapeutic and dietary schemes. The patients with no CKD stage change (34.4%) were those who had more advanced CKD at the time of referral (stages III and IV), and patients presenting renal function worsening (27.5%) were those with difficult-controlling comorbidities, including severe and refractory hypertension, advanced cardiovascular disease and decompensated diabetes.

Discussion
Early Nephrologist referral is of huge importance to slow CKD progression and, in some cases, can lead to renal function improvement. The international guidelines traditionally advise referral to specialist from CKD stage III [1, 5]. However earlier referral, when patients are still in CKD stages I and II, mainly for those with more risk factors, seems to be adequate and can be associated with lower incidence of complications, need of dialysis and mortality.

References