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ORIGINAL ARTICLE

Prevalence of Stage 5 Chronic Kidney Disease and Predictive Factors for Putting Patients on Dialysis in A Sub-Saharan African Country

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Abstract

Introduction: Knowledge of the determinants of the rate of decline of renal function can be influenced by factors predictive of dialysis and are very important in delaying disease progression. The aim was to determine the prevalence of chronic end-stage renal failure at the Donka national hemodialysis center and the factors predictive of patients going on dialysis.

Patients and methods: This was a retrospective descriptive study of 4.5 years duration that included all records of patients with a GFR ≤ 15 ml/minute regardless of etiology during the study period. Our study variables were quantitative and qualitative, divided into epidemiological, clinical, therapeutic and evolutionary data. Our data were analyzed using jamovi software.

Results: We examined 784 files and collated 579 cases of CKD, 153 of which were at stage 5, i.e. 26.42%. The mean age of patients was 42.57 ± 16.45 years. Predictive factors included gender, diabetes, anuria and a moderate decrease in glomerular filtration rate (less than 5 ml/min/1.73 m) at the time of the 1st observation.

Conclusion: Knowledge of the factors predictive of dialysis in patients with stage 5 chronic kidney disease may influence the course of the disease, hence the need to implement a follow-up strategy for these patients.

Keywords

Predictive factors, Chronic kidney disease, Prevalence

Introduction

According to Kidney Disease Improving Global Outcomes (KDIGO), stage 5 chronic kidney disease (CKD) is defined as a glomerular filtration rate (GFR) of less than 15 ml/min [1]. In this last stage of the disease, the failing kidneys are unable to perform the necessary functions. This can lead to complications such as hypertension, anemia, bone weakness and nerve damage [2,3]. Progression to stage 5 can be influenced by both modifiable and non-modifiable factors [3]. In addition to hypertension, proteinuria, hyperlipidemia and metabolic syndrome have also been recognized as important risk factors in stage 5 patients [4]. Treatments for stage 5 CKD are costly and represent an increasing burden on healthcare systems; therefore, adequate management to slow progression and factors predictive of dialysis represent a considerable challenge for developing countries. Controlling factors predictive of dialysis can reduce complications and improve patients' quality of life [5].

Worldwide, its prevalence has risen from 10% to over 12% in two decades [6]. It is expected to be the 5th leading cause of death by 2030 [7].

In the United States: in 2019, its incidence was around 2043 per 1 million inhabitants [8].

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