Letter to the Editor Regarding “Importance of Early Screening and Diagnosis of Chronic Kidney Disease in Patients with Type 2 Diabetes”

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Received: July 8, 2021 / Accepted: July 18, 2022 / Published online: August 5, 2022
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Keywords: Type 2 diabetes mellitus; Chronic kidney disease; Exercise

Dear Editor,

The importance of early detection and evaluation of chronic kidney disease (CKD) in a cohort of patients with type 2 diabetes has been discussed in the interesting review paper written by Neil Skolnik and Style [1].

It is important to understand that hyperglycaemia and systemic hypertension coexist in the majority of individuals with type 2 diabetes mellitus (T2DM) and this eventually exacerbates both cardiovascular complications and kidney dysfunction. In clinical practice, pharmacological management is the first line of care which is aimed at glycaemic and blood pressure control in this group.

Although the American Diabetes Association (ADA) 2020 Standards of Care and the American College of Physicians, Kidney Disease Improving Global Outcomes (KDIGO) 2020 Clinical Practice Guidelines recommend annual renal function testing in patients with T2DM and CKD, there is still a lack of global evidence on this.

Primitive CKD stages 1, 2 and occasionally 3 go unnoticed in low-income resource settings like India. Only when these patients experience symptoms such as fatigue, anorexia, nausea, severe swelling of the face, feet or ankles, haematuria or nocturia do they go to the hospital or seek medical help. There is a high likelihood that estimated glomerular filtration rate (eGFR) would have dropped below 30 ml/min/1.73 m² and urinary albumin excretion rate (UAER) elevated above 300 mg/24 h at this juncture. As a result, when kidney dysfunction manifests itself, the quality of life (QoL) suffers [2]. Moreover, the financial and social burden on caregivers and healthcare staff increases as the symptom burden of these patients increases [3].

An ounce of prevention is worth a pound of cure, as the saying goes. To address the growing concern of CKD, preventive strategies need be targeted and implemented at the primary,
secondary, tertiary and community levels. Frequent health education camps on diet, health behaviour change, and physical activity promotion, skill development and training for healthcare staff in rural settings, equitable access to healthcare facilities, and the development of a central database or registry that accounts for details of every citizen with complete record of their medical history and treatments received are some potential measures.

Evidence on the role of exercise in CKD prevention has recently gained traction. In a randomised controlled trial, Dong et al. discovered that changing ones lifestyle through exercise and diet reduced renal damage in people with stage 3 diabetic nephropathy [4]. Similar studies are needed to glance into the preventive role of exercise in modifying the pathophysiology of chronic kidney disease among individuals with type 2 diabetes.

ACKNOWLEDGEMENTS

We hereby acknowledge the Centre for Diabetic Foot Care and Research (CDFCR), Department of Physiotherapy, Manipal College of Health Professions (MCHP), Manipal Academy of Higher Education (MAHE), Manipal – 576104, Karnataka, India for extending their support.

Funding. No funding or sponsorship was received for this letter or publication of this article.

Authorship. All named authors meet the International Committee of Medical Journal Editors (ICMJE) criteria for authorship for this article, take responsibility for the integrity of the work as a whole, and have given their approval for this version to be published.

Author Contributions. This work was conceptualized and designed by Megha Nataraj, Dr. Arun G Maiya and Dr. Shankar P Nagaraju. No statistical analysis was involved in this document. The initial draft was prepared by Megha Nataraj. This draft was thereafter edited and revised by Dr. Arun G Maiya and Dr. Shankar P Nagaraju. The final draft was read and approved by all the authors prior to journal submission.

Disclosures. The authors Megha Nataraj, Dr. Arun G Maiya and Dr. Shankar P Nagaraju have nothing to disclose.

Compliance with Ethics Guidelines. This article is based on previously conducted studies and does not contain any new studies with human participants or animals performed by any of the authors.

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REFERENCES

1. Skolnik NS, Style AJ. Importance of early screening and diagnosis of chronic kidney disease in patients with type 2 diabetes. Diabetes Ther. 2021;29:1–8.
2. Farag YM,Keithi-Reddy SR, Mittal BV, et al. Anemia, inflammation and health-related quality of life in chronic kidney disease patients. Clin Nephrol. 2011;75(6):524–33.

3. Senanayake S, Gunawardena N, Palihawadana P, et al. Symptom burden in chronic kidney disease; a population based cross sectional study. BMC Nephrol. 2017;18(1):1–8.

4. Dong L, Li J, Lian Y, et al. Long-term intensive lifestyle intervention promotes improvement of stage III diabetic nephropathy. Med Sci Monit. 2019;25:3061.