

ABSTRACTS OF RESEARCH PAPERS

RP 05

Correlation Among Serum Uric Acid and Estimated Glomerular Filtration Rate in Type 2 Diabetes Mellitus (DM) Patients Attending the Diabetic Center, Teaching Hospital, Jaffna

Sivasubramaniyam S¹, Surenthirakumaran R², Aravinthan M³, Sivakumar H⁴

¹Faculty of Allied Health Sciences, University of Jaffna, Sri Lanka

²Department of Community and Family Medicine, Faculty of Medicine, University of Jaffna, Sri Lanka

³Department of Endocrinology, Teaching Hospital, Jaffna, Sri Lanka

⁴Department of Pathology, Faculty of Medicine, University of Jaffna, Sri Lanka

Introduction

Diabetic nephropathy (DN) is a progressive kidney disease caused by the damage to glomerular capillaries. Uric acid can serve as an inflammatory factor and is an important player in the pathogenesis of microvascular complications in diabetes mellitus. Hyperuricaemia is a predictor of renal dysfunction in type 2 diabetes mellitus (DM). The aim of the study was to evaluate the correlation among serum uric acid and estimated glomerular filtration rate (eGFR) in type 2 DM patients.

Methods

A total 80 patients with DM were included. Serum uric acid (enzymatic method) and serum creatinine (Jaffe alkaline picric acid method) were estimated. The eGFR was calculated by using CKD-EPI equation.

Results

Among the total, 60% were males and 40% were females. The mean of serum uric acid was 5.01 mg/dL (SD \pm 2.04) and mean eGFR was 78.94 ml/min/ 1.73 m² (SD \pm 21.55). Correlation between serum uric acid level and eGFR was observed as $r = -0.698$, ($P < 0.001$), $n = 80$ with moderate linearity of $r^2 = 0.487$.

Conclusions

The moderate correlation between serum uric acid level and eGFR was observed. Further studies with large samples are needed to consider the uric acid as a predictor.

Keywords

eGFR, diabetic nephropathy, chronic kidney disease