

ABSTRACT

BACKGROUND AND OBJECTIVES

A positive association between hyperuricemia and the development of type 2 diabetes mellitus has been reported. The aims were to study the level of serum uric acid levels in normal population and in patients with diabetes mellitus and to correlate the serum uric acid levels with GFR

METHODS

Ethical committee clearance was obtained. After taking consent, hundred patients with type 2 diabetes mellitus and 100 healthy controls were included in this study. All the subjects were in the age group of 25 to 70 years. They were further divided into different groups, based on the age, gender, BMI, duration of diabetes, GFR, proteinuria and the diabetes which was complicated with hypertension. These groups were compared for differences in serum uric acid levels. The serum uric acid levels of the cases and controls were correlated with GFR. The data was analysed by SPSS version 16.0

RESULTS

The mean GFR in cases were 82.6 and in controls were 116.76. The mean serum uric acid in cases were 4.8 and the mean serum uric acid in controls was 3.7. Those with elevated serum uric acid levels were found to have reduced GFR, which means a negative correlation was obtained.

CONCLUSIONS

Serum uric acid levels were higher in patients with diabetes mellitus than in the normal population. Serum uric acid levels were higher in the age group more than 60 years in both cases and controls. Serum uric acid levels were higher in people with duration of diabetes mellitus more than 5 years compared with those having duration less than 5 years. Serum uric acid levels were also higher in those with hypertension compared to those who did not have hypertension in cases. Those with elevated serum uric acid levels were found to have reduced GFR, which means a negative correlation was observed.

Key words: Type 2 Diabetes mellitus, GFR, Serum uric acid