SUMMARY, CONCLUSION AND RECOMMENDATION

- This work has been carried out to find correlation between Uric Acid and kidney disease in type 2 DM patients.
- Our aim was to study the role of Uric Acid in impairment of GFR in nonproteinuric patients with type 2 DM.

In our study we found that:

- Increased uric acid levels were associated with increased risk of the development of hypertension and cardiovascular disease.
- Our study included 100 type 2 DM patients; 64 male and 36 female, range of age was 32-87 years, 22 patients were CRP positive, SUA range was 4.4-10.3 mg/dl, e-GFR range was 42-151 ML/min, FBS range was 125-211 mg/dl, DM duration range was 1-62 years and Cholesterol Level was167-292 mg/dl.
- In the patients with SUA < 7 mg/dl we found; the e-GFR was 101.56 ± 23.893 mL/min, FBS was 175.074 ± 29.51mg/dl and HBA1c was 7.242 ± 0.5489, In patients with SUA 7-8 mg/dl; the e-GFR was 95.75 ± 24.263 mL/min, FBS was 160.221 ± 22.22 mg/dl and HBA1c was 7.008 ± 0.3106 and in the patients with SUA > 8 mg/dl; the e-GFR was 91± 23.635 ml/min, FBS was 148.01 ± 27.10mg/dl and HBA1c was 7.592 ± 0.7840.

- In the patients with e-GFR < 60 mL/min we have found; SUA was 10.43 ± 2.811 mg/dl, FBS was 150.010 ± 11.342 mg/dl and HBA1c was 7.214 ± 0.6362, In the patients with e-GFR 60-89 mL/min; SUA was 7.02 ± 1.081 mg/dl, FBS was 138.121 ± 9.325 mg/dl and HBA1c was 7.042 ± 0.3813 and in the patients with e-GFR > 90 mL/min; SUA was 5.76 ± 1.876 mg/dl, FBS was 162.174 ± 14.865 mg/dl and HBA1c was 7.420 ± 0.6765.
- There was statistical significant correlation between SUA levels, and BMI, HbA1c, FBS, SBP, Cholesterol level and e-GFR.
- There was statistical significant correlation between e-GFR levels, and age, BMI, HbA1c, FBS and SUA.
- There was statistical significant negative Correlation between e-GFR and SUA.
- There was statistical non significant Correlation between CRP, and weight and BMI; positive with weight but negative with BMI.
- There was statistical Comparison between smoker and non smokers in different variables (SBP, DBP, e-GFR, SUA, CRP and Cholesterol level) and this Comparison was statistically non significant except in DBP was significant.
- There was statistical Comparison between male and female in e-GFR and SUA and this Comparison was statistically non significant.

Conclusion

UA is a Novel marker of inflammation and remodeling within the arterial vessel wall and hyperuricaemia caused renal microvascular disease; but Hyperuricaemia may also be caused secondarily by renal impairment.

Recommendation

SUA should be investigated in all patients with DM and CKD and treatment of Hyperuricemia.