

Progression of Chronic Kidney Disease and Microalbuminuria in Patients with Diabetes

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Background

ADA recommends goal A1c <7%

ACP recommends goal A1c 7-8%

There is risk of renal disease with higher A1c

Lack of studies

Hypothesis

- We hypothesized there would be no statistically significant difference in decline in renal function between diabetics with Hemoglobin A1c of <7% and 7-8.5%.

Results

- Two sample t-test and Wilcoxon test
- Between 185 and 250 subjects depending on method of data collection
- Standard deviation similar in both groups for both variables
- Differences are not statistically significant

Limitations

Small number of participants

Short time interval

Other confounding variables (NSAID usage)

Conclusion

- No significant decline in renal function between diabetics with A1c <7% and 7-8.5%
- A1c control of <7% may not be necessary for renal outcomes
- If supported by further research, could lead to less polypharmacy/complications
- Osteopathic relevance—patient centered, emphasis on self-healing



Methods

Average A1c from office visits 2-4 years apart

Maximum A1c from office visits 2-4 years apart

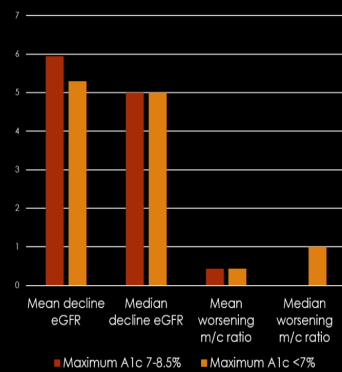
eGFR and microalbumin/creatinine values 2-4 years apart

Inclusion: being 18-70 and having diagnosis of type 1 or type 2 diabetes

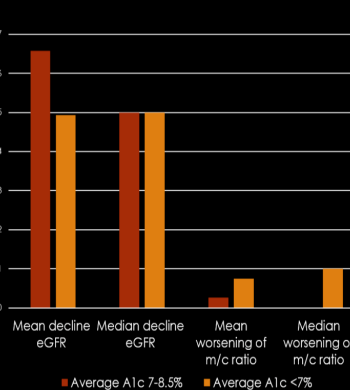
Exclusion: significant microalbuminuria on initial sample

Matching: similar blood pressure control using propensity scores

Decline in Renal Function



Decline in Renal Function



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