

Effects of Lifestyle Medicine on Uncontrolled Type 2 Diabetes



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Introduction

Diabetes Mellitus is a chronic disease, characterized by high blood sugar due to insulin resistance. In 2019, about 11% of the American population had diabetes. Over one million Americans are diagnosed with diabetes each year. Complications include hypertension, hyperlipidemia, retinopathy, albuminuria, neuropathy and chronic kidney disease. It is the 7th leading cause of death in US and costing the healthcare system over \$300 billion. However, it can be prevented and managed through lifestyle modifications and medications.

Case Report

Patient is 49-year-old male who presented to the clinic to establish care in November 2021. Patient had been told about 5 years ago he had high sugars and started on metformin. However, he stopped medication shortly after starting due to diarrhea and feeling dehydrated. His A1C from this clinic visit was >14.

Case Report

Patient followed up about 20 days later. He was started on metformin ER 500mg qd and gradually increased to 1000mg qd and started on glipizide 5mg qd. He reported he had been working on eating a diabetic diet, consisting of salmon, turkey and salads. He has not been eating rice or potatoes. He also replaced juice and soda with unsweetened tea and sparkling water. He started walking every other day and planned on doing home workouts through Youtube.

During his 3 month follow up, patient stated he was feeling great. He had been consistent with his diet and exercise and has been tolerating his medications well. His A1C was 6.6. Patient's blood pressure improved and he lost 19 pounds. Glipizide was discontinued.

Six months later from previous visit, patient's A1c was 5.7 and he had lost 37 pounds. Patient is currently on metformin 500mg BID. He continues to walk every day for 30 minutes and his diet consists of salads, lean protein, and other leafy vegetables.

Discussion

- Lifestyle intervention was more effective than metformin in preventing or delaying diabetes in the Diabetes Prevention Program (DPP) study. This study serves as a model for many lifestyle intervention programs in the US.
- In addition to preventing progression to diabetes, lifestyle interventions have a beneficial effect on weight, blood pressure, and lipid levels (increasing high-density lipoprotein cholesterol levels and lowering triglyceride levels).

Conclusion

Diabetes Mellitus can be well controlled with diet and lifestyle modifications. A 7% weight loss long with 150 minutes/week exercise can help lower one's A1c and reduce the amount of medication as evident in this patient.

References

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