

SYNOPSIS

Dissertation Topic

Impact of Diabetes Management on the Progression of Diabetic Nephropathy

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TITLE

“Impact of Diabetes Management on the Progression of Diabetic Nephropathy”

Abstract

This study explores the relationship between effective diabetes management and the progression of diabetic nephropathy. Diabetic nephropathy is a major complication of diabetes, leading to chronic kidney disease and ultimately end-stage renal failure. The research aims to evaluate how different diabetes management strategies influence the progression of this condition, providing insights for improved patient outcomes.

Introduction

Diabetes mellitus is a prevalent chronic condition worldwide, and its complications significantly impact patient health and healthcare systems. Diabetic nephropathy, a common and serious complication, leads to kidney damage and failure if not managed effectively. This project investigates the role of diabetes management in slowing or preventing the progression of diabetic nephropathy, focusing on glycemic control, medication adherence, lifestyle modifications, and regular monitoring.

Literature Review

A comprehensive review of existing literature highlights the correlation between diabetes management and diabetic nephropathy progression. Studies have shown that tight glycemic control can slow the progression of kidney damage. Other factors such as hypertension management, lipid control, and the use of renoprotective medications (e.g., ACE inhibitors, ARBs) are also crucial. The review will cover recent advancements in treatment protocols, patient adherence challenges, and the effectiveness of lifestyle interventions.

Aim And Objective:

- To assess the effect of glycemic control on kidney function.
- To determine the role of medication adherence in managing diabetic nephropathy.

- To evaluate the impact of lifestyle changes, such as diet and exercise, on kidney health.
- To identify barriers to effective diabetes management in patients with diabetic nephropathy.

Research Methodology

Quantitative: Longitudinal study of diabetic patients with nephropathy, tracking glycemic levels, kidney function tests (e.g., eGFR, albuminuria), and medication adherence over a period of time.

Qualitative: Semi-structured interviews with patients and healthcare providers to understand perceptions, challenges, and adherence to diabetes management plans.

Data Analysis: Statistical analysis of quantitative data to identify trends and correlations; thematic analysis of qualitative data to extract common themes and insights.

Research Objective

- To determine the effectiveness of strict glycemic control in slowing the progression of diabetic nephropathy.
- To explore the impact of medication adherence on kidney health in diabetic patients.
- To assess the role of lifestyle interventions in managing diabetic nephropathy.
- To identify and address barriers to optimal diabetes management in patients with diabetic nephropathy.

Conclusion

Effective diabetes management is crucial in mitigating the progression of diabetic nephropathy. This research will provide valuable insights into the most effective strategies, highlighting the importance of a comprehensive approach that includes medication adherence, lifestyle changes, and continuous monitoring. The findings aim to inform clinical practices and improve patient outcomes.

References

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