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Chronic Microvascular Complication of Type 1 Diabetes Mellitus and its Predictors Among Children with Type 1 Diabetes Mellitus in Ethiopia; A Single Center Experience: Ambi Directional Cohort Study**Konjit Eshetu***Haramaya University, Ethiopia*

Introduction: Type 1 diabetes mellitus is the most common pediatric endocrine disorder. Poor glycemic control in diabetes mellitus can result in microvascular complications (retinopathy, neuropathy, and nephropathy). There is no study done in our setting either about prevalence of pediatric type 1 diabetes mellitus or chronic microvascular complication among these patients, which gap this study is expected to fill.

Objective: This study aimed to assess the risk and predictors of chronic microvascular complication of type 1 diabetes mellitus among children with diabetes at Haramaya University Hiwot Fana Compressive Specialized Hospital from September 10, 2021 to January 30, 2023.

Methods: A hospital-based Ambi directional cohort study was conducted. Survival data are described by follow-up time and Kaplan– Meier graph. To determine predictors associated with chronic microvascular complication we used a Poisson regression optimal model selected using the information criterion. All associations are tested at the 95% confidence level and a reported IRR P-value less than 0.05 is declared as a significant association between variables.

Results: A total of 124 children with type 1 diabetes mellitus were followed with total 407.5 years risk time. The overall incidence rate of chronic microvascular complication was 83 per 1000 population per year (95% CI: 59–116). The median time for detection of microvascular complication was 7 years after diagnosis. Being male with IRR 1.71 (95% CI: 0.81–3.56), being at pubertal age IRR 1.91 (95% CI: 1.05–3.48), longer diabetes mellitus duration IRR 1.13 (95% CI: 1.07–1.28), and poor glycemic control IRR 1.50 (95% CI: 0.46–4.97) were found to be at higher risk for chronic microvascular complication.

Conclusion: There was high incidence of chronic microvascular complication of diabetes mellitus. Being pubertal age group and more than 3 years' duration after diagnosis had statistically significant association with complication.

Biography

Konjit Eshetu is a faculty member in the Department of Pediatrics and Child Health at the School of Medicine, College of Health and Medical Sciences, Haramaya University, Harar, Ethiopia. Her work is dedicated to advancing child health and pediatrics through education, research, and clinical practice. As a contributor to healthcare development in Ethiopia, she plays a vital role in training future medical professionals and improving health outcomes for children in the region.