

## DIABETES

### OP-D-01

#### CLINICAL CHARACTERISTICS AND METABOLIC OUTCOMES IN THAI PEOPLE WITH YOUNG-ONSET DIABETES ATTENDING THEPTARIN HOSPITAL: EXPERIENCE FROM A PRIVATE SETTING IN BANGKOK

<https://doi.org/10.15605/jafes.038.AFES.04>

**Siriwan Butadej, Soontaree Nakasatien, Hussamon Prasartkaew, Waralee Chatchomchuan, Ekgaluck Wanothayaroj, Yotsapon Thewjitcharoen, Sirinate Krittiyawong, Thep Himathongkam**

*Diabetes and Thyroid Center, Theptarin Hospital, Bangkok, Thailand*

#### INTRODUCTION

Young-onset diabetes (YOD) can be due to many different factors. Currently, nearly two-thirds of adults with T1D in the U.S. are overweight or obese. Few studies have examined the clinical characteristics and metabolic outcomes among Thai people with YOD.

#### METHODOLOGY

Data from participants enrolled between 2022-2023 into the Thai Type 1 Diabetes and Diabetes Diagnosed Before Age 30 Years Registry, Care and Network (T1DDAR CN) from Theptarin Hospital, a tertiary diabetes center in Bangkok were analyzed. Since 2014, T1DDAR CN has served as a multicenter retrospective study to improve the quality of care among persons with YOD. Enrollment in the study entails a clinical diagnosis of T1D made by diabetologists and random plasma C-peptide levels of  $\leq 0.6$  ng/mL.

#### RESULTS

A total of 113 patients (T1D 54.0%, females 46.9%, current age  $45.9 \pm 13.9$  years, age at DM diagnosis  $24.7 \pm 9.8$  years, duration of diabetes  $22.3 \pm 12.4$  years, BMI  $25.4 \pm 5.4$  kg/m<sup>2</sup>, A1C  $7.6 \pm 1.8\%$ ) were included. Genetic syndromes associated with diabetes made up only 1.8% of this cohort. Among people with T1D, 93.5% used intensive insulin therapy (90.2% used basal-bolus insulin regimen. and 3.3% used insulin pump). For people with T2D, 54.0% used insulin, 44.0% used only oral anti-diabetes drugs, and 28.0% used GLP-1 RA. The frequency of SMBG was higher in T1D than in T2D (at least 2 times per day in 73.7% of T1D compared with only 12.0% of T2D). The prevalence of microvascular complications was 18.0% in T1D compared with 59.2% in T2D. Among people with T1D, 42.6% were overweight or obese (BMI  $\geq 23$  kg/m<sup>2</sup>) compared with 78.0% for those with T2D. Optimal glycemic control (A1C  $< 7.0\%$ ) was identified in only 32.8% of patients with T1D compared with 44.0% of patients with T2D. The ABC targets (A1C  $< 7.0\%$ , BP  $< 140/90$  mmHg, and LDL  $< 100$  mg/dL) were achieved by 13.1% of the T1D participants and 20.0% of the T2D participants.

#### CONCLUSION

Local YOD registry data provide an excellent window into the inadequacies of the current diabetes care systems amidst the global trend of the obesity pandemic. Our data were consistent with other studies in terms of demonstrating worse glycemic control in YOD and having a more than 40% prevalence of overweight and obesity among Thai people with T1D. Efforts are needed to translate the knowledge already gained from clinical trials into individual patients seen in real-life settings.

#### KEYWORDS

metabolic outcomes, young-onset diabetes, T1D