

PP-D-49

PREVALENCE TREND AND ASSOCIATED FACTORS OF HYPERTRIGLYCERIDEMIA AND RESIDUAL CARDIOVASCULAR RISK IN PATIENTS WITH TYPE 2 DIABETES: NATIONWIDE STUDY

<https://doi.org/10.15605/jafes.038.AFES.118>

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INTRODUCTION

Triglyceride (TG) levels are associated with atherosclerotic cardiovascular disease (ASCVD) events even when low-density lipoprotein-cholesterol (LDL-C) levels are achieved. The study aimed to assess the prevalence trend of hypertriglyceridemia and residual cardiovascular risk among patients with type 2 diabetes in Thailand.

METHODOLOGY

Nationwide cross-sectional annual surveys in 2014, 2015, and 2018 were analyzed. Included patients with type 2 diabetes were ≥ 20 years old and had morning fasting TG values available. The proportion of participants who had hypertriglyceridemia was calculated according to statin or fibrate use, as well as in patients including those with LDL-C levels < 100 milligrams per deciliter for identification of the residual cardiovascular risk. Odds ratio and logistic regression were utilized for analysis association.

RESULTS

A total of 92,291 participants met the study entry criteria and were included in the analysis. Mean \pm SD TG levels were 175.6 ± 0.7 , 169.5 ± 0.6 , and 165.1 ± 0.6 mg/dL, consecutively. Of these, participants had TG levels ≥ 200 mg/dL and LDL-C < 100 mg/dL, translating to a prevalence trend of 25.3%, 22.6%, and 21.8%. The trend of statin use was increasing from 59%, 62% to 69%, while fibrate use was lower from 14%, 11% to 7%. Statin use was an associated factor of hypertriglyceridemia and residual ASCVD risk with an adjusted odds ratio of 0.57 (0.54-0.60).

CONCLUSION

There was still a prevalence of hypertriglyceridemia and residual ASVCVD risk of about one-fourth to one-fifth in patients with diabetes who received continuous care in Thailand.

KEYWORDS

triglyceride, TG, atherosclerotic cardiovascular disease, ASCVD, low-density lipoprotein-cholesterol, LDL-C