Current Status of Dyslipidemia in Thai Type 2 Diabetic Patients with Application of The New Cholesterol Guidelines: A Nationwide Study

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Background: Application of the new cholesterol guidelines (2013 ACC/AHA and 2016 Thai RCPT) emphasizes the initiation and intensification of statin therapy which is stratified by cardiovascular risks.

Objective: To determine the prevalence of dyslipidemia according to 2016 Thai RCPT guideline in adults with type 2 diabetes mellitus, aged 40-75 years, in Thailand’s hospitals nationwide and to identify factors associated with the level of LDL-C ≥ 100 mg/dL.

Methods: A cross-sectional survey in patients with type 2 diabetes mellitus who received medical care for at least 12 months was conducted annually in the year 2015. A two-stage stratified cluster, proportional to the size sampling technique was used to select a nationally and provincially representative sample of type 2 diabetic patients in Thailand.

Results: A total of 24,902 type 2 diabetic patients met the criteria of the study. All of them would be initiated with statin therapy. Only 15,239 (61.2%) of them currently received statin. There were 1,388 (5.6%) patients with ASCVD and 713 (3.2%) patients with LDL-C of 190 mg/dL or more. For prevalence of dyslipidemia, 11,650 (56.1%) patients without ASCVD had 100 mg/dL of LDL-C or more. In addition, 1,011 (83.8%) patients with ASCVD had 70 mg/dL of LDL-C or more. Factors associated with the level of LDL-C ≥ 100 mg/dL were female and all age groups.

Conclusion: Prevalence of dyslipidemia in Thai type 2 diabetic patients with application of new cholesterol is still high, especially in the groups with ASCVD. Although all patients in this study are recommended for the initiation of statin therapy, only 61.2% of the patients currently receive statin. Moreover, receiving lipid lowering therapy is not a factor associated with the goal achievement of LDL-C < 100 mg/dL. Improvement in awareness of diabetic dyslipidemia is warranted.

Keywords: Diabetic dyslipidemia, ASCVD; Atherosclerotic cardiovascular disease, 2013 ACC/AHA guideline, 2016 Thai RCPT guideline