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Original Article

Triglyceride/HDL-Cholesterol Ratio (TG/HDL-C) Beside the Total Cholesterol is a Predictor for Coronary Heart Disease in an Iranian Men Population

Khalili D¹, Hadaegh F², Tohidi M³, Ghasemi A⁴, Sheikholeslami F³, Azizi F⁵

1- Resident of Epidemiology, Department of Epidemiology, School of Public Health, Shahid Beheshti University of Medical Sciences, Tehran

2- Associate Professor, Prevention of Metabolic Disorders Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran

3- Assistant Professor, Prevention of Metabolic Disorders Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran

4- Assistant Professor, Endocrine Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran

5- Professor, Endocrine Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran

Corresponding Author:

Corresponding author: Hadaegh F., fzhadaegh@endocrine.ac.ir

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Abstract:

Background & Objectives: Triglyceride/HDL-cholesterol ratio (TG/HDL-C) has been shown as an indicator for metabolic syndrome (MetS). This study aimed to detect the role of this ratio to predict coronary heart disease (CHD) outcome in an Iranian men population with high prevalence of MetS.

Methods: 1824 men \geq 40 years old, free of clinical cardiovascular disease at baseline, were included in the study from February 1999 to August 2001. Serum level of total cholesterol (TC), HDL-C, TG, and risk factors of CHD; including age, systolic blood pressure, diastolic blood pressure, body mass index, diabetes, smoking and family history of cardiovascular diseases were measured at initial phase of study.

Results: During a median follow up of 6.5 years until March 2007, a total of 163 new CHD events occurred. According to a Cox proportional hazard modeling, after adjustment for TC and other risk factors, men in the top quartile of TG/HDL-C relative to first quartile had a significant hazard ratio (HR) of 1.85 (95% CI, 1.07-3.17). Combined HR for TC and TG/HDL-C (men in the top quartiles of both TC and TG/HDL-C relative to first quartiles) after adjustment for other risk factors was 6.13 (95% CI, 2.37-15.86).

Conclusions: The evaluation of both TG/HDL-C ratio and TC should be considered for CHD risk prediction in Iranian male population.

Keywords:

Coronary heart disease . Triglycerides . HDL-cholesterol . Triglycerides/HDL-cholesterol ratio . Metabolic Syndrome

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