

ABSTRACT

One of the significant public health problems in the health development era is the double burden of diseases. The double burden of diseases signifies the condition where there is a lot of infectious diseases needs to be addressed whilst in the other hand, the number of non-infectious diseases continues to rise. Heart and blood vessel diseases as the example of non-infectious diseases are considered dangerous diseases. Based on the report from the World Health Organization (WHO) in 2005, 17.5 millions out of 58 millions death in the world, or 30% casualties die due to heart and blood vessel diseases which consist of heart attack (7.6 millions) and stroke (5.7 millions). One of nutrients which useful to reduce the risk of heart attack and stroke is lycopene. Lycopene is insoluble in water thus it is usually found concentrated in the form of Low-density lipoprotein (LDL) and Very low-density lipoprotein (VLDL), and also it is able to neutralize oxidation in the LDL type of cholesterol.

This research aims to analyze the difference of the level of lycopene consumption and the lifestyle on the patients with hypercholesterolemia and patients with normal cholesterol. The research was conducted by using cross-sectional method. In addition, interview was carried out to 70 respondents who was selected by using a lottery method. In-depth interview was performed to obtain detailed information on the variables being researched. The independent variables in the research include age, sex, lycopene intake, fat consumption level, carbohydrate and protein level and subjects' life style while the dependent variable is cholesterol level of each subjects.

The research shows that there was a difference on the level of lycopene intake between the group of people with normal cholesterol level and the group of people with hypercholesterolemia with significancy of 0.009 or smaller than α (0.05). The lifestyle indicator such as smoking affects the blood cholesterol level. Statistical test using computer between respondent with smoking habit and their blood cholesterol level shows significany level of 0,023 which smaller than α (0,05).

In conclusion, patients with hypercholesterolemia is mostly found in the age group of 45-55 years old and the sex group of female. While high lycopene intake in the group of normal cholesterol and smoking habit in the group of hypercholesterolemia have significant impact on the cholesterol level in the blood.

Keyword: cholesterol, lycopene, and lifestyle