ABSTRACT

Smoking is a bad habit that can endanger health and become one of the biggest risk factors that can cause death. When smoking, various harmful substances contained in cigarette smoke are inhaled into the body such as nicotine, carbon monoxide, tar, etc. which can cause an increase in total cholesterol levels and can cause an inflammatory response in the body that can increase levels of C-Reactive Protein. This study aims to determine the correlation of High Sensitivity C Reactive Protein (hs-CRP) levels with total cholesterol levels in active smokers of productive age at a coffee shop in Karang Menjangan Surabaya.

This type of research is an analytic observational cross sectional with purposive sampling technique. The sample of this study consisted of 30 respondents who were active smokers in a coffee shop in the Karang Menjangan area of Surabaya who met the inclusion and exclusion requirements, then their blood was taken for hs-CRP examination using the Latex turbidimetric assay method and total cholesterol using the CHOD-PAP method, which was then analyzed for data. using the Spearman Correlation test to determine whether there is a correlation from the results of sample analysis. The study was conducted at the Surabaya Health Laboratory Center in February-May 2022.

The results showed that the average hs-CRP level was 1,12 mg/L, the average total cholesterol level was 208 mg/dL. The determination of the correlation between hs-CRP levels and total cholesterol levels was tested by the Spearman test. The significance value obtained is $p= 0.640$ with a correlation strength of $r= 0.089$. So it can be concluded that there is no significant correlation between hs-CRP levels and total cholesterol levels, but there is a weak and unidirectional correlation.

Keywords: Active Smoker, Productive Age, hs-CRP, Total Cholesterol