

ABSTRACT

Jombang Regency was the 10th most prevalent smoker in East Java in 2018 and experienced an increase in the prevalence of smokers by 0.1% from 2013. The high number of smokers raises a concern. Smoking may lead to an increase of hs-CRP and LDL cholesterol levels, where the increase in these two parameters is closely related to the formation of atherosclerotic plaques, as a cause of cardiovascular disease. Physical activity of each individual is something that needs to be known because it affects the levels of hs-CRP and LDL cholesterol. This study aims to analyze the correlation between hs-CRP and LDL cholesterol in active smokers with physical activity. This study used an observational analytic study with a cross-sectional design. This research was conducted in March-April 2022 with a total sample of 32 active smokers who work as pedicab drivers at Pondok Pesantren 'DU', Jombang Regency. The hs-CRP examination was carried out using the Latex Turbidimetric Assay method, while the LDL cholesterol examination was using the Homogeneous Enzymatic Colorimetric Assay method. Based on the statistical analysis of the Spearman correlation, the results obtained $p > 0.05$ ($p = 0.687$, $r = 0.074$), which means that there is no correlation between levels of hs-CRP and LDL cholesterol in active smokers with physical activity.

Keywords: hs-CRP, LDL Cholesterol, Active Smoker, Physical Activity