Abstract

The Relationship between High Sensitivity C-Reactive Protein and Metabolic Syndrome and Its Association with Lifestyle Factors among Physicians in the Gaza Strip †

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Abstract: Metabolic syndrome (MetS) is considered the most significant global health issue that is defined as constellations of interrelated cardiometabolic disorders including central obesity, insulin resistance, dyslipidemia, and hypertension. Studies indicated that high-sensitivity C-reactive protein (hs-CRP) has a role in the development of MetS and vice versa. No studies illustrated this association among physicians in the Gaza Strip, Palestine. The aim of this paper is to determine the prevalence of MetS among physicians and to identify the relationship between hs-CRP and MetS and lifestyle factors. A cross-sectional study design was adopted among healthy physicians in MOH, Gaza Strip. Data were collected from 300 participants (48.7% female and 51.3% male); they did not suffer from chronic disease or current infection or inflammation. Demographic data, anthropometrics, blood pressure, biochemical measurements, and lifestyle data were obtained from all participants. NCEP ATP III criteria were used to diagnose MetS. The majority of the study population (67.4%) were having high BMI > 25 kg/m². 63.0% with low HDL. The prevalence of MetS was 34.0%, and about half of the remaining participants had two diagnostic criteria for MetS. There were statistically significant differences in gender and age with MetS (p < 0.05). Also, the finding indicated a significant mean difference in hs-CRP and MetS groups. Moreover, there were no statistically significant differences between the MetS group in all food group consumption scores except in the fruits group, moreover, a significant correlation between hs-CRP and FBS, TG, BMI, and WC in females. The prevalence of MetS among healthy physicians was more than a third of the participants. More importantly, this study indicated a relationship between hs-CRP in participants with MetS. In addition, participants with MetS were found to have higher BMI, WC, WHR, FBG, TG, and lower HDL than non-MetS, and there was a relationship between the last components and hs-CRP.

Keywords: metabolic syndrome; inflammatory markers; lifestyle habits; lipid; Gaza

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