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Thesis Title	EVALUATION OF PLATELET INDICES IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION AND UNSTABLE ANGINA			
Year	2013			
Abstract	<p>significant role in the pathogenesis of atherosclerosis and coronary artery disease. It is well established that large platelets are involved in the development of atherosclerotic plaque and acute coronary syndromes.</p> <p>Objective: The aim of this study was to define the relationship between platelet indices and development of coronary artery diseases.</p> <p>Patients & Methods: Our study comprised 50 patients admitted to coronary care unit of AL-Yarmouk teaching hospital with acute coronary syndrome; 20 patients had unstable angina (UA) and 30 patients had acute myocardial infarction (AMI) diagnosed on the basis of history, characteristic electrocardiographic changes, and increased cardiac enzyme activities. Platelet volume indices (PVI): mean platelet volume (MPV), platelet crit (PCT), platelet count and platelet distribution width (PDW) was done using automated hematology analysis and compared them with 50 normal healthy controls.</p> <p>Results: All platelet volume indices—mean platelet volume (MPV), platelet distribution width (PDW), platelet count and platelet crit (PCT)—were significantly raised in patients with AMI and UA. In patients with myocardial infarction, the mean values of MPV, PDW, platelet count and PCT were 10.9fL, 21.6%, 352.2(x 10⁹/L) and 0.171% respectively; while in normal healthy control the mean values of these indices were 7.1fL, 15%, 256.2(x 10⁹/L) and 0.153% respectively. A statistically significant difference in mean values of these indices was found (p value < 0.001). Similarly, in patients of unstable angina mean values of MPV, PDW, platelet count and PCT were 11.1fL, 21.1%, 300.7(x 10⁹/L) and 0.165% respectively. A statistically significant</p>			

difference in mean values of these indices was also found (p value <0.001).

Conclusion:

Larger platelets are haemostatically more active and are a risk factor for developing coronary thrombosis, atherosclerotic plaque and subsequent acute coronary events (myocardial infarction and unstable angina). Patients with larger platelets can easily be identified during routine hematological analysis and could possibly benefit from preventive treatment.