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The Association Between Platelet To Lymphocyte Ratio, Red Cell Distribution Width, Mean Platelet Volume and Postoperative Atrial Fibrillation In Patients Underwent Coronary Artery Bypass Surgery Operation: Can We Predict Postoperative Atrial Fibrillation By Using These Values?

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ABSTRACT

OBJECTIVE: We aimed to investigate the relation between platelet/lymphocyte ratio, red cell distribution width, mean platelet volume and postoperative atrial fibrillation in patients underwent coronary artery bypass surgery operation.

MATERIAL AND METHODS: We analysed the preoperative and postoperative blood counts (platelet to lymphocyte ratio,red cell distribution width and mean platelet volume) and rhytm status of 92 patients retrospectively who underwent coronary artery bypass surgery operation who hadn’t a story of atrial fibrillation before operation.

RESULTS: 92 patients who underwent coronary artery bypass surgery operation, who hadn’t a story of atrial fibrillation were divided into two groups according to development of atrial fibrillation or not after operation.47 of the patients (group 1) had atrial fibrillation and 45 of the patients (group 2) hadn’t atrial fibrillation after surgery.The last group was control group.

The platelet to lymphocyte ratio was higher in the first group compared with the control group (p<0,05).

There were no significantly differences in the values of red cell distribution width and mean platelet volume between two groups.

CONCLUSIONS:Different from other inflammatory markers, platelet to lymphocyte ratio is an inexpensive and readily available biomarker that may be useful for the prediction of new oneset atrial fibrillation after coronary artery bypass surgery.

KEY WORDS:Platelet to lymphocyte ratio; red cell distribution width; mean platelet volume; coronary artery bypass surgery operation; atrial fibrillation