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## Letters to the Editor

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#### Clopidogrel in coronary artery surgery<sup>☆</sup>

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We read with great interest the article by Karabulut and associates [1]. Karabulut and associates analyzed the effect of preoperative use of an antiplatelet agent, namely clopidogrel, on both bleeding and use of blood and blood products after CABG in a retrospective manner.

We disagree with the authors when they reported that preoperative use of clopidogrel until the day of operation does not increase the bleeding, need for surgical re-exploration or blood/blood product transfusion after CABG. It has been known that preoperative use of antiplatelet agents like aspirin, ticlopidine and clopidogrel is a major cause of acquired platelet dysfunction and associated bleeding complication after cardiac surgery [2,3]. Our clinical experience with the use of clopidogrel in emergent CABG patients also showed that it increased both chest tube drainage and requirements of packed red blood cell transfusions during the early postoperative period [4].

Clopidogrel is a thienopyridine derivative and irreversibly inhibits ADP-mediated platelet aggregation by selectively binding to ADP receptors on the platelet surface. It requires 3–5 days for the effect to appear. When the total platelet count is within the normal range, platelet response to ADP by flow cytometer, bleeding time and to a lesser extent, thromboelastogram, are frequently used to assessing the platelet function. Karabulut and associates did not routinely measure platelet functions in patients with preoperative clopidogrel usage. They did not mention the degree of preoperative platelet dysfunction in these patients. We think it is difficult to say that clopidogrel does not increase postoperative bleeding without knowing

the degree of platelet dysfunction in patients with recent clopidogrel history.

In their study, they stated that in clopidogrel group, 50% of the patients (24 patients) used both aspirin and clopidogrel and 6% of the patients (3 patients) used aspirin, clopidogrel and heparin preoperatively. It has been clearly demonstrated that dual therapy with aspirin and clopidogrel has a synergistic inhibitory effect on platelet function. Although 5.9% of the patients in the control group and 6% of the patients in the clopidogrel group were also heparinized prior to the operation, all aPTT levels in both control and clopidogrel group were in normal range (from Table 1 :  $32.6 \pm 4.5$  and  $31.4 \pm 4.5$  s, respectively). It was not clear from the text that were these patients heparinized with standard heparin or low molecular weight heparins?

It has been suggested that preoperative use of antiplatelet agents like aspirin and clopidogrel should be discontinued at least 7 days prior to the operation in elective patients. In their study, 36 of the 48 patients in clopidogrel group were elective cases and operated while they were on clopidogrel or even clopidogrel and aspirin therapy. So, what is their policy in the elective CABG patients with recent antiplatelet drug use history?

### References

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<sup>☆</sup>The authors of the original paper [1] were invited to comment on this Letter to the Editor but declined the offer stating it would be a duplication of previous correspondence.

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