



The effect of Tranexamic acid on cardiac surgery bleeding

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ARTICLE INFO	ABSTRACT
Article type Review article Article history Received: 29 Dec 2013 Revised: 8 Jan 2014 Accepted: 16 Jan 2014 Keywords Bleeding Blood transfusion Cardiac Surgery Tranexamic acid	Serious bleeding in cardiac surgery leads to re-exploration, blood transfusion and increases the risks of mortality and morbidity. Using the lysine analogous of antifibrinolytic agents are the preferred strategy to suppress the need for transfusion procedures and blood products. Although tranexamic acid has been very influential in reducing the transfusion requirement after operation, tranexamic acid induced seizures is one of the common side effects of this drug. Due to inhibiting the fibrinolysis, thrombotic events are other possible side effects of using tranexamic acid. There are no certain results regarding decreasing the mortality rate by using the drug but it is identified that tranexamic acid does not increase the mortality. In this article, we aimed to review the literature on using tranexamic acid in cardiac surgeries.

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Introduction

Bleeding and tissue damage may appear as side effects of every surgical operation which immediately activate the homeostatic mechanisms through activation of fibrinolysis and coagulation mechanisms of body to stop losing excessive amount of blood or any thrombosis (1).

Fibrinolytic mechanism inhibits the intravascular deposition of thrombus. The level of the activation of fibrinolytic

mechanism is strongly dependent on the type of surgery which is most significant in orthopedic and cardiac surgeries compared with some simple operations. In each type of surgery, there may be different factors which stimulate the activation of fibrinolysis. Manipulation of the heart, surgical trauma, and heparin are among factors that promote fibrinolysis during cardiac surgeries which finally lead to bleeding and providing the

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