

Comment on: Tranexamic acid for safer surgery: the time is now

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Dear Editor

Grocott et al.¹ advocated that 'Tranexamic acid (TXA) should be considered in all adults having in-patient surgery, and included in the Surgical Safety Checklist of all hospitals'. However, controversy exists in two large randomized trials, which showed a significant decrease in bleeding-associated death after TXA administration.

The CRASH-2 trial was limited by selection bias; it lacked critical patient information on injury severity scores, objective parameters of shock (such as lactate and base deficit), or the presence of fibrinolysis. This demerit in the inclusion criteria made it impossible to avoid the heterogeneity of cohorts. Moreover, it also lacked information on the numbers of patients receiving massive blood transfusion (BT) or a detailed description of the difference in BT protocols among the hospitals studied. After all, half of the patients received BT in the CRASH-2 trial, which made it difficult for the experts to draw precise conclusions regarding the effectiveness of risk reduction in mortality among patients with bleeding trauma.

We noted that there was no decrease in the rate of hysterectomy after TXA use in the WOMAN trial. However, almost all hysterectomies were performed as an emergency owing to uncontrolled postpartum haemorrhage. It is hard to attribute the decrease in mortality caused by bleeding to the use of TXA or to decisive hysterectomy in an emergency.

Concerning the safety of TXA, the POISE-3 trial investigators concluded that the non-inferiority of TXA was not established, although there was a slight difference between patients receiving TXA and those receiving placebo regarding the composite cardiovascular adverse effect. However, Alphonsus et al. reanalysed the data from this trial, and pointed out that one-eighth of patients receiving TXA to prevent bleeding-related death would face an adverse thrombotic safety outcome.

Currently, TXA is suggested for patients with severe bleeding or those at risk of massive bleeding related to hyperfibrinolysis. Strict investigation is imperative before guideline modification.

Disclosure

The authors declare no conflict of interest.

Reference

1. The UK Royal Colleges Tranexamic Acid in Surgery Implementation Group; Grocott MPW, Murphy M, Roberts I, Sayers R, Toh CH. Tranexamic acid for safer surgery: the time is now. Br J Surg 2022;**109**:1182–1183

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