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LETTER TO EDITOR

Potential Utility of Tranexamic Acid in Combat Trauma

Li-Kuei Yang[1], Zhi-Hong Zheng[2,3]

[1]Department of Orthopedic Surgery, Cardinal Tien Hospital, [2]Department of Orthopedic Surgery, Tri-Service General Hospital, National Defense Medical Center, Taipei, [3]Department of Orthopedic Surgery, Hualien Armed Forces General Hospital, Hualien, Taiwan

Corresponding Author: Dr. Zhi-Hong Zheng, Department of Orthopedic Surgery, Tri-Service General Hospital, National Defense Medical Center, No. 325, Sec. 2, Chenggong Rd., Neihu Dist., Taipei 114, Taiwan. Department of Orthopedic Surgery, Hualien Armed Forces General Hospital, No. 163, Jiali Rd., Xincheng Township, Hualien 971, Taiwan.
E-mail: rara540@gmail.com
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We read the article "Potential utility of tranexamic acid (TXA) in combat trauma" by Singh *et al.*,[1] with a lot of interest. We commend the authors' efforts. In this letter, we present some updated references on the effect of early TXA on trauma patients during the prehospital and in-hospital phases of the care process.

A randomized controlled trial revealed that prehospital packed red blood cells (PRBCs) + TXA are associated with reduced 30-day mortality for injured patients at risk of hemorrhage (hazard ratio [HR] = 0.66; 95% confidence interval [CI]: 0.48–0.91, $P = 0.01$ vs. neither group). The use of PRBC transfusion alone was associated with a reduction in early mortality (HR = 0.53, 95% CI: 0.45–0.65, $P < 0.01$ vs. neither group).[2]

Another randomized controlled trial for acute traumatic bleeding patients revealed that although it was no statistically significant difference in terms of systolic blood pressure, pulse rate, base excess, serum hemoglobin changes, bleeding volume, the incidence of thrombotic events, and the number of deaths between the early intravenous injection of TXA (1 g TXA of intravascular infusion in 100 ccs of normal saline and then 1 g every 12 h for up to 24 h) and placebo groups ($P > 0.05$), however, a significant difference between the two groups regarding the median of pack cell, platelet consumption, and bleeding volume was noted ($P < 0.05$).[3]

The final study, also a double-blind, randomized, controlled trial at a level 1 center, evaluated the efficacy and safety of the second in-hospital dose of TXA after the prehospital dose: The second TXA dose did not change the mortality rate, need for blood transfusion, thromboembolic complications, organ failure, and hospital length of stay compared to a single prehospital dose.[4]

We thank for the author's effort in the dedicated study. For the acutely bleeding patient, to our knowledge, the efficacy of prehospital TXA administration could benefit. However, the second TXA in-hospital dose did not improve the survival of trauma patients.

Data availability statement

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

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Conflicts of interest

There are no conflicts of interest.

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