

# Effects of Tranexamic Acid on Bleeding and Hemoglobin Levels in Patients Undergoing Percutaneous Nephrolithotomy: Letter to Editor

## Dear Editor

With great interest, I read a recently published article (IJMS issue: Volume 44, number 6, November 2019) by Mohammadi and colleagues titled "Effects of tranexamic acid on bleeding and hemoglobin levels in patients with staghorn calculi undergoing percutaneous nephrolithotomy".<sup>1</sup> In their randomized controlled trial, they evaluated the effect of Tranexamic acid (TXA), as an anti-fibrinolytic agent, in preventing excessive bleeding after percutaneous nephrolithotomy (PCNL). They concluded that "TXA reduced the risk of bleeding during and after PCNL and attenuated the drop in the hemoglobin level in the postoperative period". Furthermore, in the methods section, they stated: "The exclusion criteria comprised of intravascular coagulation, skeletal disorders, acquired color vision, subarachnoid hemorrhage, drug sensitization, and non-consumption of aspirin, warfarin, or vitamin E". Based on the above, it is not clear whether patients with disseminated intravascular coagulation or those with thrombosis in the renal veins or lower extremity vessels had been excluded from the trial. Moreover, I believe that the non-consumption of aspirin, warfarin, or vitamin E should have been the inclusion rather than exclusion criterion.

It has been shown that Von Willebrand disease combined with factor V and VIII deficiency, and many other rare bleeding disorders such as factor XI deficiency may be asymptomatic except during major trauma or surgical procedures.<sup>2-5</sup> Even with a negative history, it is recommended to examine bleeding tendency in such patients.

As a final note, TXA is useful in the prevention and control of hyper-menorrhagia, gum bleeding, and nose bleeding. However, it should not be prescribed to patients with hematuria as it may cause clot formation in the ureter and subsequent painful passage of the clot.<sup>4,6</sup>

**Conflict of Interest:** None declared.

**Statement from IJMS:** The response letter from Dr. Mohammadi and colleagues will be published whenever received by the Journal.

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Mahdi Shahriari, MD 

Hematology-Oncology Branch, Department of Pediatrics, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran

## Correspondence:

Mahdi Shahriari, MD;

Department of Pediatrics, Nemazi Hospital, Zand Boulevard, 71934, Shiraz, Iran

**Tel:** +98 71 36281952

**Fax:** +98 71 36474298

**Email:** drmahdi.Shahriari@gmail.com; shahryar@sums.ac.ir

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