The Effect of Tranexamic Acid on the Outcome of Total Ankle Replacement

Abdalla Hassan

T&O Registrar, Cumberland Infirmary, United Kingdom

Abstract:

Background: Infection rates after total ankle replacement (TAR) are known to be greater than those after hip or knee arthroplasty. Swelling after TAR can make wound healing more difficult, which can lead to infection. Tranexamic acid (TXA) has been shown to minimize blood loss after surgery, improving healing outcomes. We aim to assess the effect of TXA on blood loss and wound complications in TAR.

Methods: The research looked retrospectively at patients who had TAR procedures between September 2014 and December 2019. The procedures were done using the anterior approach at a single hospital by two, foot and ankle surgeons. Tranexamic acid was given intraoperatively before the tourniquet was inflated. The surgeons did not use surgical drains. Pre and postoperative haemoglobin levels, outcome scores as well as post-operative complications were all documented.

Results: A total of 69 patients were included in the study with 33 of them receiving TXA. With a mean age of 67.2, we had 31 females and 38 males. Tranexamic acid was given in doses ranging from 1 gm to 2 gm. None of the patients required blood transfusions after surgery, and there was no statistically significant difference in pre and postoperative haemoglobin levels between the two groups. In the TXA group, there were fewer wound complications. The TXA group achieved better results compared to the non-TXA group (p=0.0130).

Conclusion: Tranexamic acid is safe and effective in lowering postoperative bleeding and preserving haemostasis after deflating the tourniquet, reducing oedema and postoperative wound problems such as breakdown and dehiscence.