

Deep Vein Thrombosis in the Uninjured Lower Extremity: A Retrospective Study of 1454 Patients With Lower Extremity Fractures, Qu S.W. et al. *Clinical and Applied Thrombosis/Hemostasis*, Volume 27, 1-7, 2021

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Level of Evidence: 4

Reviewer:

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Deep vein thrombosis (DVT) is an issue that can occur in patients with extremity fractures especially after surgery. This study looked at the rates of DVT before and after surgery in the unaffected (contralateral) legs of patients with concomitant lower extremity fracture treatment. The research involved 1454 individuals showing a 9.63% occurrence of DVT before surgery, rising to 20.29% post-surgery.

The researchers stress the importance of recognizing factors that increase DVT risk, such as age, gender, type of fracture, and underlying conditions like blood pressure and heart disease. Their results showed that females were found to be more vulnerable than males in developing DVTs; in addition, further analysis revealed that advanced age was also determining factor. The authors also found that surgical blood loss, elevated D-dimer at admission and elevated postoperative day 5 D-dimer were associated with postoperative DVT in the uninjured lower extremity.

Preventive measures like using low molecular weight heparin (LMWH) and mechanical support were introduced for all patients on the unaffected legs, with these preventative approaches showing no increased risk of bleeding or pulmonary embolism; therefore, the authors reaffirm the safety of such approaches. The results also emphasize the need for healthcare providers to assess DVT risk in patients and apply appropriate preventive strategies based on individual patient characteristics and fracture specifics.

In summary, this research offers findings on the occurrence and potential causes of DVT in the unaffected/ipsilateral leg of individuals with fracture ORIF in the lower extremities emphasizing the need for careful observation and proactive measures for this at-risk group. Some limitations to this study are the case-control study design itself and other factors affecting the formation of DVT that were not addressed (including statin usage).



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