

VTE Prophylaxis In Open Lower Limb Trauma

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Introduction

Venous thromboembolic (VTE) disease is a major global cause of morbidity and mortality. Patients with open lower limb fractures requiring temporary lower limb immobilisation after injury are a significant contributor to the overall burden of VTE. Existing evidence suggests that pharmacological prophylaxis could reduce overall VTE rates in these patients.

Background

There is a balance of VTE prophylaxis vs risk of bleeding especially in patients following microsurgical reconstruction. There are NICE guidelines on VTE prophylaxis in extremity trauma, but nothing specific for open lower limb fractures. Our aim in this study was to assess the compliance with VTE prophylaxis guidelines in open lower limb fractures.

Methods

This was a prospective study that included 29 patients from October 2021 to January 2022 that were admitted to the Plastic Surgery Department with open lower limb fractures. All the patients underwent definitive bone fixation with the majority having local or free flap reconstruction and had temporary lower limb immobilization.

Results

19 patients had free flap reconstruction, 9 patients had local flaps while 1 patient had the skin defect closed directly. Despite a non-compliance in completion of the trust VTE risk assessment form, all of our patients were prescribed the correct prophylactic dose of low molecular weight heparin (LMWH). This was prescribed according to the trust guidelines along with the thrombo-embolus

deterrent (TED) stockings.

Despite the prophylactic measures taken, there were 2 post-operative complications related to VTE. One patient developed deep vein thrombosis in the injured leg and the other one developed pulmonary embolism post-operative, for which appropriate treatment was instituted with no long-term sequelae.

Conclusion

Patients with open lower limb fractures are at high risk for VTE complications even in the presence of appropriate prophylaxis. The use of VTE risk assessment tool to identify the risk of bleeding vs VTE is crucial and in line with NICE guidelines for VTE prophylaxis.

Our aim for the future is to introduce the VTE risk assessment tool to the pre-existing departmental trauma proforma and also to provide patients with leaflets including information regarding post-operative immobilization and VTE risks.

Keywords:

Open fracture, Lower Limb, VTE, Free Flap, Immobilisation, non-weight bearing.

Biography:

Kareem EL-Shishtawy, graduated from Faculty of Tanta Medicine, Egypt in 2012(MBChB). Finished his Plastic and Reconstructive surgery training in Tanta University hospitals where he got his Master's Degree in Surgery (MSc). Currently working as a Senior Clinical Fellow in Welsh Centre of Burns and Plastic Surgery, Morrison Hospital, Swansea, UK.

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