

Prevalence and Risk Factors of Preoperative Deep Vein Thrombosis in Elderly Patients with Hip Fractures

¹Muhammad Rajaei AMZ, ²Mohd Khazran H, ¹Shaifuzain AR, ¹Amran AS

¹Department of Orthopaedics, School of Medical Sciences, Universiti Sains Malaysia 16150 Health Campus Kubang Kerian, Kota Bharu, Kelantan, Malaysia; ²Hospital Sultan Ismail Petra, Kuala Krai

INTRODUCTION:

Hip fractures are common in the elderly population after a fall. Consequently, they are at a high risk of developing complications such as venous thromboembolism, deep vein thrombosis (DVT) and pulmonary embolism (PE), which may cause significant morbidity and mortality. To date, there are no local data regarding the prevalence of DVT before surgery in elderly patients with hip fractures and risk factors associated with it. This study aimed to establish the prevalence of DVT in elderly patients following a hip fracture in the local population and evaluate the risk factors for the occurrence of preoperative DVT in this population.

METHODS:

This research is a retrospective cross-sectional study involving 118 patients with a history of hip fracture and received treatment in HUSM from January 2014 to November 2020. Patient screening was conducted via the PACS (Picture Archiving and Communication Systems) system and the patients' medical records. Patients with hip fractures and had ultrasound Doppler of lower limb one day before surgery were selected. All selected risk factors, including demographic data information was then recorded in a study proforma. Data were entered in Microsoft Excel and analysed using SPSS version 26.0.

RESULTS:

The overall prevalence of preoperative deep vein thrombosis in elderly patients with hip fracture was 5.4%. The mean duration of immobilisation in DVT patient is 18.4 days. None of them received Enoxaparin as

prophylaxis. Two out of five DVT patients had underlying malignancy.

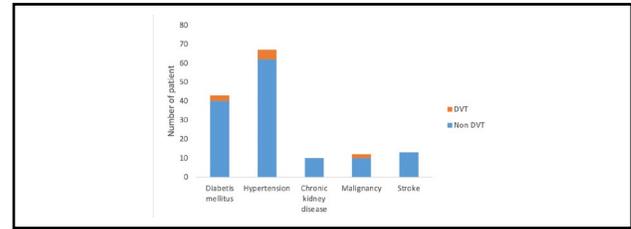
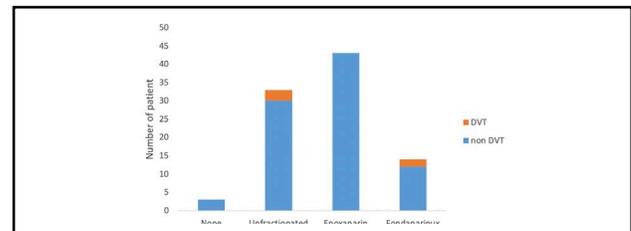


Figure 1: Patient distribution based on



comorbidity

Figure 2: Patient distribution based on DVT prophylaxis used

DISCUSSIONS:

Prevalence for developing VTE in the elderly with hip fracture ranged from 9-12.7%, with the majority occurring postoperatively [1]. This study is the earliest to provide local data for prevalence and risk factors of preoperative DVT among the elderly with hip fracture in this population. The prevalence of DVT in the elderly with hip fracture was 5.4%, which was relatively similar to previous studies.

CONCLUSION:

The critical risk factors for DVT development were the duration of immobilisation, types of DVT, prescribed prophylaxis and malignancy.

REFERENCES:

1. Smith EB, Parvizi J, Purtill JJ. Delayed surgery for patients with femur and hip fractures-risk of deep venous thrombosis. J Trauma. 2011;70(6): E113-6.

