

LETTER TO EDITOR

Management of Deep Vein Thrombosis in Emergency Departments; Time to Change the Viewpoint

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To the Editor:

Clot formation within a deep vein is called deep vein thrombosis (DVT). It occurs in about 100 persons per 100,000 population each year in the United States and leads to about 600,000 pulmonary thromboembolism (PTE) cases and also causes 60,000 deaths annually (1, 2). For many years, unfractionated heparin (UFH) and warfarin have been used for treatment of DVT and prevention of PTE (3). This approach needs hospitalization and necessitates close monitoring by partial thromboplastin time (PTT) measurement (4). By development of low molecular weight heparin (LMWH) the need for laboratory monitoring was resolved. In addition, some investigators also claimed that it is accompanied with less bleeding risk and better outcome (5). Accordingly, outpatient management of DVT became possible and nowadays American College of Chest Physicians (ACCP) advocates outpatient therapy for DVT. This method has been shown to be safe and effective in presence of home adequacy criteria (6). Home adequacy is defined by ACCP as "well-maintained living conditions, strong support from family or friends, phone access, and ability to quickly return to the hospital if there is deterioration" (7). Yet, many physicians in Iran prefer to hospitalize all DVT patients because of their belief in the impossibility of outpatient treatment.

In the current study, we evaluated outpatient therapy of 10 patients with lower extremity DVT in emergency department (ED) of Imam Khomeini Hospital of Urmia, Iran from 21 July 2014 to 15th March 2015. DVT was confirmed by ultrasound in all 10 patients. None of them had previous history of DVT, PTE, use of anticoagulant, allergy to heparin or warfarin, hemodynamic instability, home inadequacy, and comorbidity that mandate hospitalization. Patients received first dose of subcutaneous LMWH (Enoxaparin) and oral warfarin, and were discharged from ED on the same day. The home medical prescription included subcutaneous LMWH 1mg/Kg twice daily, plus 5 mg oral warfarin daily. The dose of warfarin was adjusted based on international normalized ratio (INR). The goal INR was considered 2-2.5.

Bleeding, PTE, recurrent DVT and mortality had not happened in 2, 4, 6, and 30 days follow-up after ED discharge. It seems that it is time to change our viewpoint in this regard. The importance of this matter is duplicated when we are confronted with overcrowding of emergency departments and loss of hospital beds following implementation of Health Sector Evolution Plan in Iran.

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