

# Opium, an important risk factor for deep vein thrombosis patients

Sir,

Deep vein thrombosis (DVT) is a multifactorial disorder. Its risk factors are age of over 40 years old, being man, obesity, surgery, trauma, prolonged immobilization, smoking, diabetes, infectious disease, and chronic heart failure.<sup>[1]</sup> Important complications of DVT patients include pulmonary embolism, venous insufficiency, recurrence, and death. One of the most important DVT and metabolic syndrome risk factors that reported in recent studies is opium ingestion.<sup>[2,3]</sup>

To investigate relation between DVT and drugs, a cross-sectional study was conducted on 263 DVT patients hospitalized from 2009 to 2015. Demographics, risk factors, and outcomes were gathered in a checklist from patient's records. Data were entered into the SPSS software (Version 22, IBM Corp), and Chi-square test was performed to compare risk factors by gender. Significance level set as 0.05. About half (50.2%) of all patients were male. The mean (standard deviation) age of the patients was  $55.84 \pm 18.45$  years. The majority of patients (98.1%) had lower limb DVT. The results showed that immobility (21.3%), opium ingestion (20.9%), smoking (12.5%), recent surgery (11.8%), and history of DVT (11.4%) were the more prevalent risk factors. Furthermore, the least prevalent risk factor was a family history of DVT (0.4%). In addition, smoking (21.9% vs. 3%) and history of DVT (16.6% vs. 6.1%) were statistically more prevalent in males. The prevalence of opium usage in DVT patients was 20.9% (21.9% in males and 19.8% in females).

Abdar Esfahani and Sayehmiri showed that 19.1% of patients were addicted to heroin and opium among 238 DVT patients who were hospitalized during 11 years in Al-Zahra Hospital, Isfahan, Iran.<sup>[2]</sup>

DVT is more prevalent in injectable drug users where annual incidence of DVT is 3% which is about 100 times higher than general population.<sup>[4]</sup> Therefore, in intravenous (IV) drug users, damage of blood vessels helps the formation of DVT developments. It seems that decrease in blood

flow from the damaged muscles pump during intoxication resulting from injection and high clotting factors due to infection infusion cause DVT in IV drug users.<sup>[5]</sup> One of the infusion points in addicted patients is the femoral vein which increases the risk of DVT.<sup>[2]</sup>

Studies showed that one of the oldest and prevalent drugs used by Iranians is opium. Due to reduction in the age of myocardial infarction and overall mortality by using opium and potentially dangerous side effects, prevention programs are necessary, especially in patients admitted to the wards, orthopedics, and internal surgery to reduce the incidence of DVT complications. By taking into account the fact that using drugs is one of the aggravating factors of DVT development, further prospective studies are crucial evaluating the association between DVT and opium.

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## Conflicts of interest

The authors have no conflicts of interest.

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