

Prevalence of venous thromboembolism in patients with severe novel coronavirus pneumonia

Songping Cui, Shuo Chen et al.
Journal of Thrombosis and Haemostasis 2020
<https://doi.org/10.1111/jth.14830>

Abstract

Background

Since 3 months ago, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) broke out in Wuhan, China, and spread rapidly around the world. Severe novel coronavirus pneumonia (NCP) patients have abnormal blood coagulation function, but their venous thromboembolism(VTE) prevalence is still rarely mentioned.

Objectives

To determine the incidence of VTE in patients with severe NCP.

Methods

In this study, 81 severe NCP patients in the Intensive Care Unit (ICU) of Union Hospital (Wuhan, China) were enrolled. The results of conventional coagulation parameters and lower limb vein ultrasonography of these patients were retrospectively collected and analyzed.

Results

The incidence of VTE in these patients was 25%(20/81), of which 8 patients with VTE events died. VTE group was different from non-VTE group in age, lymphocytes counts, activated partial thromboplastin time (APTT), D-dimer, etc. If 1.5 µg/mL was used as the D-dimer cut-off value to predicting VTE, the sensitivity was 85.0%, the specificity was 88.5% and the negative predictive value (NPV) was 94.7%.

Conclusions

The incidence of VTE in patients with severe NCP is 25% (20/81), which may be related to poor prognosis. The significant increase of D-dimer in severe NCP patients is a good index for identifying high-risk groups of VTE.