Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Background-aim

In addition to typical respiratory symptoms, COVID-19 is associated with coagulation abnormalities that lead to thromboembolic complications.

Methods

Retrospective study of critically ill patients admitted to an intensive care unit (ICU) a cause of severe COVID-19 pneumonia (Group 1) and we evaluated coagulation function using coagulation standard parameters on day of admission (T0) and 10 (T10) days after admission to ICU and rotational thromboelastometry (ClotPro). In addition, we compared coagulation standard parameters to patients with severe non-COVID-19 pneumonia (Group 2).

Results

Eighty-four patients participated in our study. Traditional coagulation parameters were similar between group 1 and group 2. Only D-dimer levels (2442.11 ng / ml vs 370 ng / ml, p = 0.03) were significantly higher in COVID-19 pneumonia than in non-COVID-19 pneumonia. In addition, we concluded an increase in D-dimer levels during the hospital stay (T0 = 2442.11 ng / ml vs T10 = 8564.39 ng / ml, p = 0.000). Finally, patients with SARS-CoV-2 pneumonia exhibited hypercoagulant thromboelastometry profiles, characterized by elevated maximum clot firmness (MCF) values.

Conclusions

The results observed in our study support hypercoagulability in a severe inflammatory state, rather than a disseminated intravascular coagulation (DIC). More studies are needed to allow a better understanding of the coagulopathy produced in patients with severe COVID-19 pneumonia.

doi: 10.1016/j.cca.2022.04.747

Anemia, homocysteine and deep vein thrombosis. Is there any link?
M. Boudaya, S. Fendri, R. Ben Salah, K. Jamoussi, Z. Bahloul
CHU Hedi Chaker, laboratory of biochemistry, Sfax, Tunisia

Background-aim

Venous thromboembolic disease is a public health problem whose diagnosis calls for adequate management, this management includes pathologies associated with thrombosis including anemia. In the course of our work, we propose to screen for cases of anemia in patients with deep vein thrombosis.

Methods

This is an observational study involving patients under the age of 60 admitted to the internal medicine department for the management of deep vein thrombosis confirmed by imaging of unknown etiology. A complete blood count was taken for all patients included in the study performed by the Sysmex XN1000 machine.

Results

Forty-seven patients were included in our study, mean age 40.8 ± 10.5 years with extremes of 18 and 59 years. The group consisted of 27 men (57.5%) and 20 women (42.5%). The sex ratio was 1.35. Fifteen patients had a body mass index exceeding 25 kg / m2. Venous thrombosis of IM was the most frequent localization observed in 34 patients (72.3%). Twelve patients (25.5%) were anemic. The anemia observed in both sexes was in 50% normochromic normocytic, and in 50% of cases microcytic. Hemoglobin level was significantly lower in folate deficiency (p = 0.05). Four patients (33%) had folate deficiency and hyperhomocysteinemia with normocytic anemia. All these patients received vitamin supplementation.

Conclusions

Adequate management of deep vein thrombosis prompts a full etiological investigation and screening for anemia with possible vitamin deficiency requiring supplementation.

doi: 10.1016/j.cca.2022.04.748