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Conclusions The incidence of TE events is low in COVID-19 patients. Thromboprophylaxis should be prescribed in selected people.

Disclosure of interest The authors declare that they have no competing interest.

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Profile of cardiovascular manifestations in COVID-19 patients at the Libreville university hospital center, Gabon

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Introduction Cardiovascular affections are frequent in COVID-19.

Purpose The aim of this study was to describe the profile of cardiovascular manifestations in a population of patients with SARS-CoV-2 infection.

Methods This was a descriptive retrospective study carried out at the center hospitalier universitaire de Libreville on April 1st, 2020 to March 30th, 2021. All the files of patients hospitalized for COVID-19 that were confirmed by PCR and presenting a cardiovascular affection were included. These patients had undergone a complete clinical examination and an electrocardiogram. Doppler echocardiography and/or thoracic CT angiography were performed according to clinical suspicion. The data were processed with SPSS 16.0 software. Quantitative variables are described as median or mean and qualitative variables as a percentage.

Results Out of the 452 patients admitted for COVID-19 during this period, 51 (11.3%) presented a cardiovascular affection. The mean age was 59.1 ± 13.3 years with a predominance of men (sex ratio 1.4). Cardiovascular risk factors were dominated by high blood pressure (60.7%), obesity (43.1%) and diabetes (19.6%). The most common cardiovascular manifestations were pulmonary embolism (31.3%), arrhythmias (33.3%) and heart failure (21.6%). Acute coronary syndromes were rarer (5.9%). The medians of D dimers and CRP were 3270 microg/L and 60.5 mg/L, respectively. COVID-19-specific pulmonary CT lesions were severe in 19.6% of cases. Non-invasive ventilation was performed in 17.6% of patients. Hospital mortality was 7.8%.

Conclusion Cardiovascular manifestations are frequent in Libreville for COVID-19 and affect young people. The early diagnostic and management of these affections are essential despite this particular infectious context.

Disclosure of interest The authors declare that they have no competing interest.

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Sulodexide in the treatment of patients with long COVID 19 symptoms and endothelial dysfunction: The results of TUN-EndCOV study

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Background Endothelial dysfunction is probably one of the mechanisms of long COVID-19 symptoms. Sulodexide has pleiotropic properties within the vascular endothelium that can prove beneficial in the long COVID-19 symptoms.

Purpose We aimed to evaluate the effect of sulodexide when used in patients with endothelial dysfunction and long COVID-19 symptoms.

Methods We conducted a prospective multicenter longitudinal case-control study. Endothelial function was evaluated with DTM "E4-Diagnose" Polymath based on the Endothelium Quality Index (EQI). A group of patients with endothelial dysfunction (EQI < 2.0) received sulodexide. All the patients were followed-up 21 days after inclusion. Primary outcomes were defined as endothelial function amelioration (delta EQI) and long COVID-19 symptoms evolution during the follow-up.

Results A total of 410 patients were included in this study. Patients were included at an average time of 1.89 ± 1.2 month after COVID-19 infection. At inclusion, 210 (51.2%) patients had an EQI < 2. The median age was 49 ± 13.8 (18–80) years. Among the patients with endothelial dysfunction, only 79 patients received sulodexide. Patients in sulodexide group had lower EQI than the non-medical intervention group (0.94 ± 0.6 vs. 1.52 ± 0.4 ; $P < 10^{-3}$). They were more diabetic, hypertensive, had more coronary artery disease and received more long-term medications (aspirin, Bblockers and statins) than the others ($P = 0.01, 0.002, 0.01, 0.009, 0.001$ and 0.01 , respectively). At the 21-days follow-up, patients in sulodexide group presented lower long COVID symptoms especially chest pain, palpitations, fatigue and neuro-cognitive difficulties associated to a significant amelioration of endothelial function (delta EQI 1.26 ± 1.07 vs. 0.22 ± 0.7 ; $P < 10^{-3}$).

Conclusion Sulodexide in patients with long COVID-19 may be a good intervention to ameliorate chest pain, palpitations, fatigue and neuro-cognitive difficulties associated to endothelial dysfunction.

Disclosure of interest The authors declare that they have no competing interest.

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