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## First prospective multicentric registry on malignant hypertension: Rational, design and early results from 100 patients of the french HAMA cohort



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Malignant hypertension (MHT) still exists, leading young people to a poor prognosis. Yet, we lack clear guidelines, mainly because data are scarce. We initiated the first MHT multicentric network to assess these issues. We built a 28 centers network so far, aiming for 40–50 French centers end 2020, and European participation in 2021. We prospectively recruit patients with severe hypertension (> 180/110) and severe hypertensive retinopathy (common definition) or 3-target organ damage among heart, kidney, brain and thrombotic microangiopathy (MOD HTN definition). We hope to recruit 500 patients in 5 years, with a 5 years follow up. We currently collect clinical and examination data, aiming for building a biobank and a target organ damage corelab to entirely reconsider the disease. During the first 6 months, we recruited as planned 58 patients, 41% were male, 49.1 ± 15 years old. Half of them were not known hypertensive, and one third presented a secondary hypertension. Non-observance was reported in 25% of patients as a trigger. Mean blood pressure was 219 ± 29 / 119 ± 20 mmHg. Patient care pathway was very different according to initial symptoms, target organ damage and centers: hypertension, neurology, nephrology, cardiology, internal medicine, intensive care unit and emergency department. Target organ damage was respectively 70%, 33%, 25% and 25% for kidney, heart, brain and thrombotic microangiopathy, mostly improving during follow up. Most of patients (70%) benefited from intravenous antihypertensive treatment and saline infusion. Length of stay was on average 8 days. Malignant Hypertension clearly didn't disappear, but was diluted between the different specialities and forgotten. This most severe presentation has to be considered once again to better manage our patients. The unique HAMA network should make it possible to gather high-quality data to improve our knowledge and rediscover the disease.

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

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## Venous thromboembolism frequency in patients hospitalized for SARS-CoV-2 infection



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**Background** SARS-CoV-2 infection was associated with a higher thrombotic risk, partially explained by intense systemic inflammatory reaction, longer hospitalizations and intubations as well as central catheters and extracorporeal membrane oxygenation devices. Intrinsic thrombotic potential is questioned as certain patients had plasma lupus anticoagulant (LAC).

**Purpose** This study aimed to evaluate the frequency of venous thromboembolism (VTE) among adult patients hospitalized for COVID-19.

**Methods** This is a retrospective analysis of consecutively hospitalized adult patients with SARS-CoV-2 infection (positive rtPCR) admitted to the University Hospital of Strasbourg from the 25th Feb, 2020 to the 1st Apr, 2020. Patients hospitalized for less than 24h were excluded and the observation period ended at hospital discharge.

**Results** During the study period, 943 COVID-19 patients were hospitalized in our institution, of whom 772 were included in this analysis. The median age was 68 (56–79) years old and 58 patients had previously known VTE. Overall, VTE occurred in 60 patients (7.8%): 43 pulmonary embolisms (PE), 15 isolated deep vein thrombosis and 2 superficial vein thrombosis. Of note, 81% of patients had been prescribed an anticoagulant treatment on admission. VTE incidence was higher in patients with more severe forms of pneumonia defined as either leading to death, and/or requiring intubation/high flow nasal oxygen/non-invasive ventilation (21% versus 2%,  $P < 0.001$ ). Overall mortality was 21% and death rate was higher in patients that presented a VTE event (35% versus 20%,  $P = 0.012$ ). Among VTE patients, a search for LAC was performed in 72% of them and came back positive in 88% of cases. Overall, 33 major bleeding complications (4.3%) were observed of which 42% were intracranial.

**Conclusion** Our study showed that in-hospital VTE occurred more frequently in case of severe COVID-19 pneumonia and was associated with higher death rates.

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

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## Relationship between kalemia and ICU admission or death in hospitalized COVID-19 patients: A monocentric cohort study



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**Introduction** Coronavirus disease 2019 (COVID-19) use Angiotensin-Converting Enzyme 2 (ACE-2) as a viral gateway and could have interactions with the RAA system. Other studies have found kalemia abnormalities associated with severe forms of COVID-19. Our goal was to assess the prognosis value of kalemia in severe COVID-19 hospitalized population.

**Methods** We analyzed data from a monocentric prospective observational cohort that included 65 patients PCR-confirmed positive for COVID-19 who were admitted at HEGP in Paris, between 15 to 21 March, 2020. The study aimed to determine the relationship between baseline kalemia and the primary composite outcome defined as admission to an intensive care unit (ICU) or death. Baseline kalemia was defined as the presence of a kalemia under 3.8 mmol/L within 10 days of the first symptom onset.