

Commentary on the Role of Angiology and Vascular Surgery in the COVID-19 Pandemic

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ABSTRACT

Currently, according to data from the World Health Organization, the number of people around the world infected with the new coronavirus, also known as Sars-CoV-2, has already passed the nine million infected mark. This new epidemic that emerged in the city of Wuhan, China, has become epidemiologically distinct from the other two viruses of the Coronavirus family already known to us and that have caused regional outbreaks in humans, thus not yet demonstrating the ability for rapid global distribution, which are the coronavirus responsible for severe acute respiratory syndrome (Sars-CoV) and the coronavirus responsible for Middle East respiratory syndrome (Mers-CoV).

Keywords: Sars-Cov; Infection; Coronavirus; COVID-19

BACKGROUND

As we live more and more with the presence of Sars-CoV-2, it has been shown that the infection determined by this new virus has the potential not only to cause a disease restricted to the respiratory system, but also to generate critical systemic dysfunction, such as for example, the installation of a prothrombotic state in critically ill hospitalized patients, which potentially can lead to the occurrence of venous or arterial thrombotic events in this category of patients [1-6]. From this perspective, together with the constant dissemination of new findings and the interest to better understand how Angiology and Vascular Surgery Services around the world are working in the context of the COVID-19 outbreak, our study aimed to gather published content from several Health Centers that revealed from protocols applied in vascular services in the current situation, to the role of vascular surgeons and angiologists in the clinical and surgical management of infected or not patients, with the purpose of guiding and informing this specialty during the context of the pandemic.

We hope, with this, that our work can collaborate and support other local professionals working in the area of Angiology and Vascular Surgery, to constantly improve and update the care procedures and flowcharts that are being conducted in their routines during this new and unexpected situation which significantly impacted the resources and dynamics of hospital

care. In addition, due to the late risk of thrombotic events that are being described in patients who were positive for COVID-19, we aim to stimulate and place at the heart of the discussion the thrombotic risk that this set of critically ill patients for the new coronavirus is submitted to, from the moment of your diagnosis to your departure home. For this, understanding in more depth the pathophysiology of this new disease, mainly due to the discovery and observation in patients of hematological changes, more precisely in the coagulation cascade, is extremely important. In addition, as there is still no safe protocol established for the treatment of such disorders, an important question is to understand when patients with Sars-CoV-2 should be treated or not with antithrombotics and if the clinical presentation of the disease can lead to this taking therapeutic decision [7,8]. For all these reasons, it is evident that, collaboration on a global scale among health professionals is necessary to face this Pandemic, since there are still more doubts than certainties in several aspects regarding this new and challenging disease.

REFERENCES

1. WHO Coronavirus Disease (COVID-19) Dashboard. World Health Organization. 2020.
2. Khan S, Siddique R, Shereen MA, Ali A, Liu J, Bai Q, et al. Emergence of a novel coronavirus, severe acute respiratory

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- syndrome coronavirus 2: biology and therapeutic options. *J Clin Microbiol.* 2020;58(5): e00187-200.
3. Rabaan AA, Al-Ahmed SH, Haque S, Sah R, Tiwari R, Malik YS, et al. SARS-CoV-2, SARS-CoV, and MERS-CoV: A comparative overview. *Infez Med.* 2020;28(2): 174-184.
 4. Lai CC, Shih TP, Ko WC, Tang HJ, Hsueh PR. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges. *Int J Antimicrob Agents.* 2020;55(3): 105924.
 5. Wang D, Yin Y, Hu C, Liu X, Zhang X, Zhou S, et al. Clinical course and outcome of 107 patients infected with the novel coronavirus, SARS-CoV-2, discharged from two hospitals in Wuhan, China. *Crit Care.* 2020;24(1): 188.
 6. Pons S, Fodil S, Azoulay E, Zafrani L. The vascular endothelium: the cornerstone of organ dysfunction in severe SARS-CoV-2 infection. *Crit Care.* 2020;24(1): 353.
 7. Halasz G, Di Spigno F, Piepoli M, Villani GQ, Nardecchia S, Spezzano T, et al. Late occurrence of pulmonary embolism in SARS-CoV-2 pneumonia: a case series. *G Ital Cardiol.* 2020;21(7): 523-525.
 8. Violi F, Pastori D, Cangemi R, Pignatelli P, Loffredo L. Hypercoagulation and Antithrombotic treatment in coronavirus 2019: A new challenge. *Thromb Haemost.* 2020;120(6): 949-956.