Thrombolysis in children with COVID-19-associated pulmonary thromboembolism

Trombólisis en niños con tromboembolia pulmonar asociada a COVID-19

Mateo Porres-Aguilar,^{1*} Adriana Torres-Machorro² and Moisés Aurón³

¹Division of Thrombosis Medicine, Centre of Excellence in Thrombosis and Anticoagulation Care, Department of Medicine, Jewish General Hospital, McGill University, Montreal, Quebec, Canada; ²Department of Vascular Surgery and Endovascular Therapy, Instituto Nacional de Cardiología "Ignacio Chávez", Mexico City, Mexico; ³Department of Adult Hospital Medicine and Pediatrics, Pediatrics Institute, Cleveland Clinic, Cleveland, Ohio, USA

We have read with interest the article by Ávila-Castro et al.¹ Currently, there is limited evidence regarding the role of systemic thrombolysis and catheter-directed thrombolysis in children with severe pulmonary thromboembolism.² That being said, we would like to express and share the following questions: Which are the systemic thrombolysis therapeutic regimens used in the authors' hospitals? In case they use systemic thrombolysis in said clinical context, do they prefer to use a low- or a high-dose regimen? What is the frequency of major and intracranial hemorrhage in children?

Recently, case series and retrospective analyses have been published on the use of catheter-directed thrombolysis in pediatric pulmonary thromboembolism, which demonstrated acceptable efficacy and lower risk of major hemorrhage, including intracranial

hemorrhage.³ Do the authors believe in the potential benefit within the reperfusion therapeutic strategies? There is no doubt that prospective studies and randomized clinical trials are urgently needed to address these questions about the future of thrombolysis in its different modalities, especially in the context of the COVID-19 pandemic.

References

1. Ávila-Castro D, Ortiz-Torres G, Sánchez-Jara B, Valle-Cárdenas T, Aquino-Fernández E, González-Ávila AI, et al. Propuesta para el manejo de la coagulopatía asociada a COVID-19 en niños. *Gac Med Mex* 2020;156:344-353.
2. Tarango C, Manco-Johnson M. Pediatric thrombolysis: a practical approach. *Front Pediatr* 2017;5:260. DOI: 10.3389/fped.2017.00260.
3. Belsky J, Warren P, Stanek J, Kumar R. Catheter-directed thrombolysis for submassive pulmonary embolism in children: a case series. *Pediatr Blood Cancer*. 2020;67(4):e28144. DOI: 10.1002/pbc.28144.

Correspondence:

*Mateo Porres-Aguilar

E-mail: mporres1980@gmail.com

Date of reception: 23-09-2020

Date of acceptance: 01-10-2020

DOI: 10.24875/GMM.M21000482

Gac Med Mex. 2020;156:606

Contents available at PubMed

www.gacetamedicademexico.com

0016-3813/© 2020 Academia Nacional de Medicina de México, A.C.. Published by Permanyer. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).