



Relationship between pulmonary embolism and stroke

Relación entre el tromboembolismo pulmonar y la enfermedad cerebrovascular isquémica

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Published: April 16, 2021

Received: June 26, 2020

Accepted: July 06, 2020

Cite as:

Riverón-Carralero WJ, Góngora-Gómez O. Relación entre el tromboembolismo pulmonar y la enfermedad cerebrovascular isquémica. 16 de Abril [Internet]. 2021 [fecha de citación]; 60 (280): e963. Disponible en: http://www.rev16deabril.sld.cu/index.php/16_04/article/view/963

Conflict of interest: The author declare that there are no conflicts of interest.

Cerebrovascular disease is any alteration, transitory or permanent, of one or more brain areas, as a consequence of a cerebral circulation disorder ¹. It can be classified as ischemic, due to the interruption of the blood supply, or hemorrhagic due to the rupture of a cerebral vessel ².

Linked in direct proportion to hospital mortality, the frequent, numerous and above all foreseeable clinical systemic and neurological complications of the acute phase, those that generate death or neurological disability, are associated with the mass effect and

the extent of the lesion. and they represent a potential barrier to the optimal recovery of the patient.

Optimizing urgent diagnostic strategies to reduce the time from the onset of stroke to therapeutic medical action, as well as providing specific treatment adapted to each subtype of stroke, etiology, location and size, and starting secondary prevention are key determinants to improve the prognosis of the ill person.

Pulmonary thromboembolism (PTE) stands out as a cause of both direct and indirect mortality, among the systemic clinical complications of stroke, with an increased incidence in this type of patient.

Pulmonary thromboembolism occurs as a consequence of partial or total occlusion of the pulmonary arterial vascular bed by a detached thrombus (embolus) of the deep venous system, usually of the lower limbs ³.

The rate of PTE among patients hospitalized for acute ischemic stroke in 2013 in a Canadian study was found to be 1.77 %. Mortality related to PTE can be as high as 24 %, but early treatment reduces the risk of this complication ⁴.

The risk of PTE, including fatal cases, in patients with acute ischemic stroke is well known but insufficiently investigated. Limited information is available on the impact of PET on stroke outcomes.

Risk factors such as age, obesity, smoking, high blood pressure, among others, are common to both diseases; the probabilities of PTE in stroke patients are increased by presenting comorbidities such as neoplastic diseases and other risk factors such as bed rest and increased prothrombotic state.

Eswaradass et al.⁴ report three important findings in their study of the association of ischemic stroke and pulmonary thromboembolism; the

most important one is that about 50 % of the patients died of pulmonary embolism, often within the first weeks after the initial diagnosis.

Pongmoragot et al.⁵ found that the hospital mortality rate in patients with ischemic CVD and PE was 31.5 %, comparable with previous findings from Taiwan (35.7 %) and Germany (46.8 %).

PET is a potentially preventable complication after stroke. In the setting of concurrent acute stroke, PET can produce hypoxia that would contribute to the worsening of existing cerebral ischemia.

PTE represents the highest proportion of early death in patients with ischemic stroke ⁴; Although it is true that thrombolysis can be useful in both conditions, the subsequent decision to use the anticoagulant or not requires careful judgment. Early recognition of predisposing conditions for PTE in stroke patients can help implement strategies for their early detection and appropriate preventive measures aimed at improving the quality of stroke care.

AUTHORSHIP CONTRIBUTION

WJRC: Conceptualization. Investigation. Methodology. Supervision. Drafting - original draft. Drafting - review and editing.

OGG: Investigation. Methodology. Drafting - original draft. Drafting - review and editing.

FINANCING

The author did not receive funding for the development of this article.

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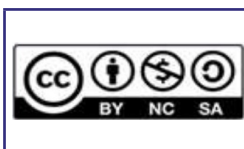
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