Prognostic Value of Ischemia Time in the Definitive Outcome of the Treatment of Acute Arterial Ischemia of the Extremities

Zamora JLC*

National Institute of Angiology and Vascular Surgery, Cuba

*Corresponding author: Jose Luis Cabrera Zamora, Master in Atherosclerosis, 2nd Degree Specialist in Angiology and Vascular Surgery, National Institute of Angiology and Vascular Surgery, Havana, Cuba, Email: czamora@infomed.sld.cu

Abstract

The medical-surgical treatment of acute arterial ischemia of the extremities represents, due to its frequency and severity, one of the most severe and daily problems that the vascular surgeon must face, hence the importance for the medical class of its knowledge, timely diagnosis and promptness in its management and transfer to a specialized medical care center.

Keywords: Acute Arterial Ischemia of Extremities; Ischemia Time; Associated Risk Factors

Abbreviation: PAD: Peripheral Arterial Disease.

Objective

To describe the prognostic value of ischemia time in the definitive outcome of the treatment of acute arterial ischemia of the extremities.

Development

According to the Intersocietal Consensus Classification for the Management of Peripheral Arterial Disease (PAD) (TASC II), acute arterial ischemia of a limb is defined as an abrupt decrease in perfusion of an extremity, which produces a potential threat. to its viability, in patients who present within two weeks of the event. This interruption of circulation is caused most often by an embolism and more rarely, by acute arterial thrombosis, dissection of the arterial wall or vascular trauma. The clinical picture of AAI of the extremities is quite elementary, classically summarized in the five cardinal signs and symptoms such as the six Ps: pain, pulseless, pale, distal coldness (poichilothermia), paresthesia. (paresthessia) and paralysis (paralysis).

Patients who present beyond two weeks are considered to have critical limb ischemia, which, by definition, is chronic. The medical-surgical treatment of acute arterial ischemia of the extremities represents, due to its frequency and severity, one of the most severe and daily problems that the vascular surgeon must face. The introduction in 1963, by Thomas Fogarty, of the thrombectomy balloon probe meant a revolutionary advance in its treatment. However, even in the mid-80s and today, the results obtained continue to show high mortality and morbidity figures. Despite the revolution that occurs with the introduction of this therapeutic variant, approximately one fifth of patients definitively and exclusively undergo non-surgical drug treatment, based on anticoagulants, mainly Heparin, at least initially for some. They recommend the preparatory use of heparin, however, they suggest its use after post-surgical complications, however, the criterion of its subsequent use to significantly reduce the recurrence of thromboembolic episodes is unanimous [1,2].

The risk factors that determine this result, even today, are of diverse nature. Firstly, all those that influence the general condition of the patient and especially acute arterial

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obliteration, cardio-circulatory status, degree of hydration, metabolic alterations, kidney function, etc.; All of them are significantly influenced, and in a certain way conditioned, by falling on patients whose average age has increased in the last 50 years, rising to an average of 45 years in the current series. This advanced age brings with it a progressive deterioration of the general condition, with numerous associated diseases that have led to the definition, I quote Cornier; This syndromic entity is rather a form of death than a cause of peripheral ischemia. On the other hand, the severity of tissue ischemia is marked by another set of factors that, variously intermixed, will condition the final result, such as the etiology, the lesion topography, and the time of evolution or period thereof, elapsed from the beginning of the lesion. Clinical symptoms, until the beginning of the correct and definitive treatment, in a specialized center. From the study and analysis of these risk factors, therapeutic attitudes are derived that aim for better control of them and, therefore, better results. However, some such as age or lesion topography are not modifiable; others are partial, the evolution time is modifiable as a risk factor conditioning negative results [3-5].

Recent research shows that the clinical prognosis of patients with acute arterial ischemia of a limb continues to maintain high morbidity with risk of loss of said limb or even life itself, leading to an average mortality rate of 20% and amputation of the limb. 18%, if the treatment is instituted in the first 24 hours, from the onset of symptoms, while if it is delayed after the first 24 hours, the results worsen drastically, reporting a mortality between 20% and 40%. % with an amputation rate ranging between 19 and 50%. Therefore, it can be considered that the passage of time (time of evolution) determines in a linear and progressive way the degree of tissue ischemia, and, therefore, very significantly the final result. Resulting in a vital urgency and/or medical emergency; where it is evident that their knowledge and management by the medical class that these patients see for the first time will be of vital importance to refer them promptly and without delay for their definitive treatment to a hospital center specialized in the management of this entity peripheral vascular [6-9].

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