

Successful thrombolysis in stroke in the elderly, a perspective beyond the guidelines

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Abstract

Cerebral infarction is one of the largest causes of disability worldwide, it is estimated that there are approximately 9.5 million events worldwide, estimating a presentation in 1 in every 4 adults in their lifetime, with a high disability rate worldwide. with a great economic impact due to the high survival rate.

Key Words: penumbra and core; blood pressure; thrombolysis

Introduction

Cerebral infarction is one of the largest causes of disability worldwide, it is estimated that there are approximately 9.5 million events worldwide, estimating a presentation in 1 in every 4 adults in their lifetime, with a high disability rate worldwide. with a great economic impact due to the high survival rate [1]. The presentation in patients over 85 years of age is high, however, with a treatment rate currently very low, which has economic repercussions and on the quality of life of the patients as well as their support network. The current stroke management guideline of the European society considers management in patients over 85 years of age even as extraordinary, with the criteria for management being very narrow [2]. We present the case of a patient at the end of her life with severe stroke who underwent extended thrombolysis management with good results that was carried out in our unit.

Presentation of the case

This is a 90-year-old female with a history of high blood pressure and diabetes mellitus, as well as a previous cerebral infarction with sequelae only dysarthria classified on the Rankin disability scale as Class 2. Her condition began with neurological deficit witnessed by family members 4 hours before His admission around 12:45 hrs, which is characterized by aphasia and right faciocrorporal hemiparesis that does not recover spontaneously by coming to our unit, he arrives at our service at 5:40 hrs where he is taken to the resuscitation area with suspected stroke. acute ischemic Relevant initial vital signs Blood pressure 190/86, rest without alterations. A neurological examination was performed, giving a NIHSS

scale score of 25 at the expense of right faciocrorporal hemiparesis, global aphasia, conjugate gaze deviation to the left, decreased sensitivity of the right hemibody, and bitemporal hemianopia. It is diagnosed as a dominant hemispheric Neurovascular Syndrome with a 7-point RACE scale with high suspicion of large vessel occlusion.

Approach

With the diagnostic suspicion and in accordance with management guidelines [2], a simple tomography of the skull was performed without observing hemorrhage, an ASPECTS of 9 points was calculated secondary to hypodensity in M6 known from previous infarction, there were no more hyperacute data. Blood pressure is addressed since it remains outside of treatment goals with hydralazine 5 mg, with improvement in blood pressure levels.

Treatment

Due to evolution time >4.5 hours, it was decided to activate the Res ISSSTE network for stroke management, and she was referred for advanced imaging study. Angiotomography was performed with apparent acute occlusion of M1 postbifurcation, with Collaterality grade 2 (Figure 1), advanced perfusion study with Mismatch of 1.6, Penumbral zone 21.97 cm [3], Infarction zone 13.76 cm³ (Figure 2) meeting EXTEND criteria for extended window thrombolysis [3]. Treatment was performed with Tenecteplase at a weight dose of 0.25 mg/kg with a total dose of 2.2

mg as a single bolus, according to the EXTEND-IA TNK3 study [4], calculating a Dragon Score of 7 points and a SEDAN Score of 2 points with low risk. for post-thrombolysis hemorrhage.

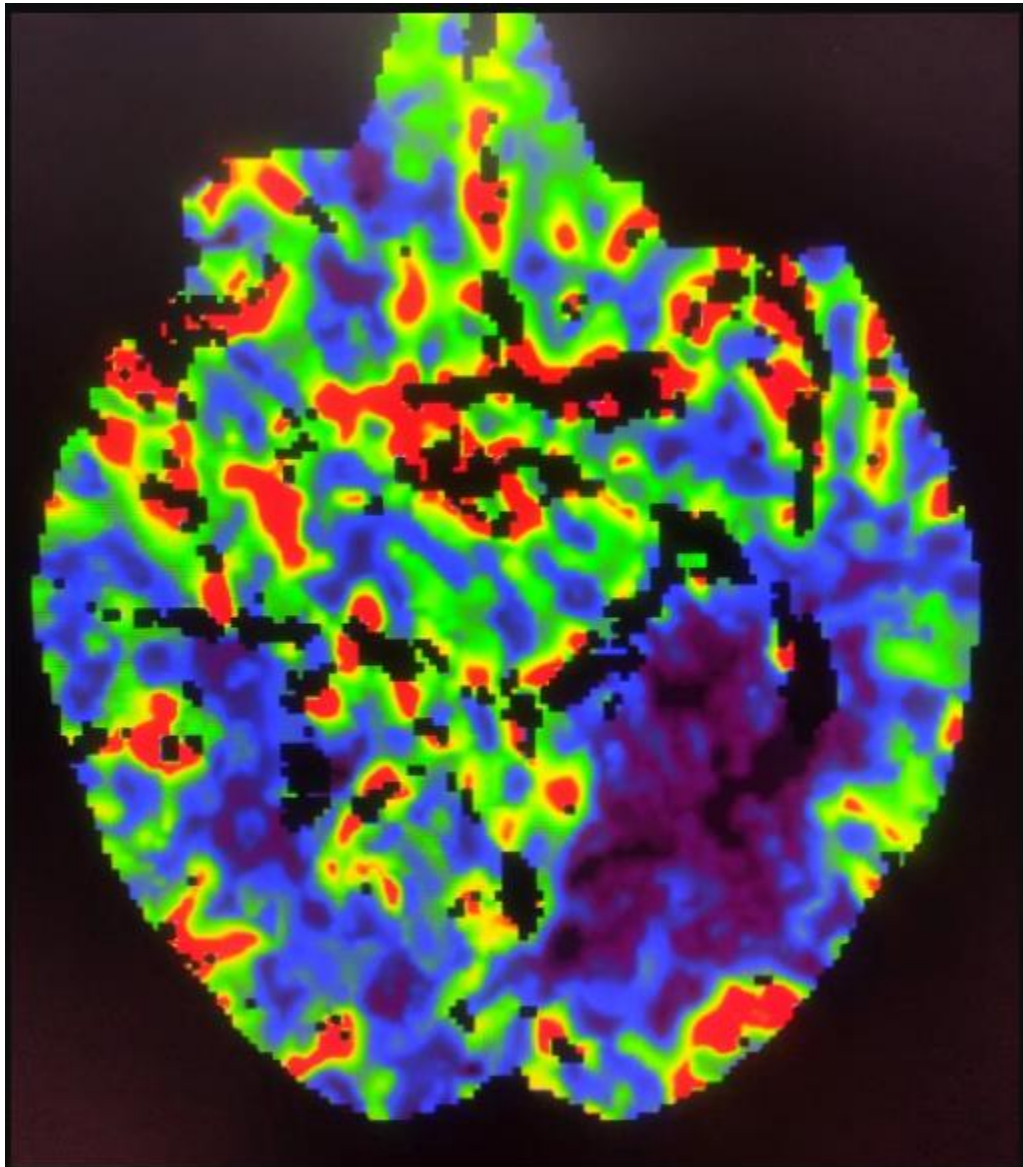


Figure 1: Diffusion sequence image in axial section with infarct area in MCA M1 territory

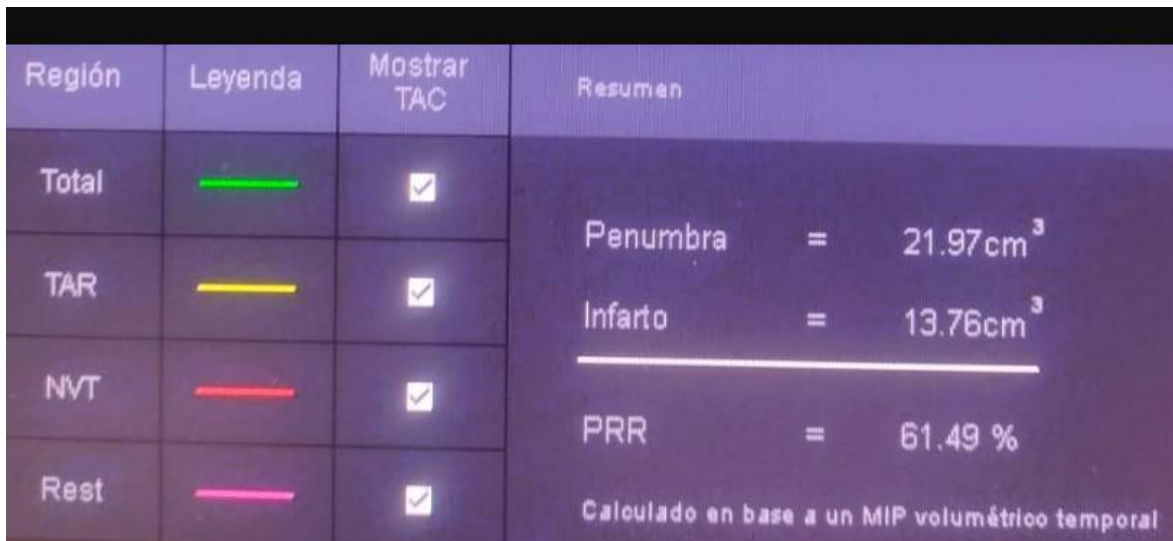


Figure 2: Results from the RAPID program with diffusion sequence, showing Penumbra and Core.

Outcome and follow-up

Patient admitted to intensive care for post-thrombolysis care without secondary hemorrhage, evolving adequately with recovery of function NIHSS of 10 points, currently with a Modified Rankin Scale of 3 points.

Discussion

According to what has been presented, we consider that age barriers in patients with major stroke are not a determinant for the pharmacoinvasive therapeutic approach, and that recognition and adequate stratification in the emergency department was key to the management of this patient, which which contributed to a good management result that impacts not only mortality, but also the quality of life of the patient after treatment, it is necessary to extend the new criteria for therapeutic approach in our emergency rooms to provide management to our patients. > 85 years, which are still outside the scope of the management guidelines.

Patient perspective

The modified Rankin scale gives us a perspective of the previous and subsequent disability of a patient with ischemic stroke, ⁵ age is not a determinant for access to pharmacoinvasive therapies in the treatment of stroke, this success case being important to ignore those barriers regarding stroke management in patients with NIHSS greater than 20 or age greater than 85 years.

Thanks

I thank my teachers for providing me with the support and experience to expand my knowledge in this specialty of ours, as well as the nursing staff

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Conflict of interests

The authors of this case report declare that they have no conflict of interest.

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