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ASSESSMENT OF THE PROFILE OF PATIENTS AFFECTED BY ACCIDENT BRAIN VASCULAR

Cintia Justino Rabelo¹; Mariana Gomes Vidal Sampaio¹; Lívia Caroline Alexandre de Araújo²; Rafael Artur de Queiroz Cavalcanti de Sá²

¹Catholic University Center of Quixadá, 63900-257, Quixadá Ceará, Brasil. ²Laboratory of Molecular Biology (BioMol), Biochemistry Department, Federal University of Pernambuco, 50740-540, Recife, Pernambuco, Brazil.

ABSTRACT

The cerebrovascular accident (CVA) is defined as a neurological disease capable of debilitating or leading to death. It develops through the obstruction or rupture of a blood vessel, causing the tissues around the lesion to lack oxygen and compatible substrates for correct functioning. The aforementioned pathology is a case of great concern for public health worldwide. Every year, about 17 million individuals are affected by stroke and 6.5 million of these patients die, leaving 26 million with sequelae and/or permanently incapacitated. The risk factors for the onset of stroke are divided into two classes, the first of which comprises the non-modifiable, which include age, color, ethnicity and heredity, and the second, the modifiable ones: arterial hypertension, cardiovascular pathologies, dyslipidemias, overweight, diabetes mellitus, smoking, alcoholism, high hematocrit/inflammatory process, periodontal disease and antiphospholipid antibody. Hypertension is the most prevalent risk factor, with about 80% of the cause among the types of stroke. The prevention of stroke in relation to risk factors consists of small daily and consecutive gestures. Adhering to a good diet is essential, this action will prevent overweight and facilitate the reduction of cholesterol, as well as the practice of daily physical activities is extremely important to keep away from sedentary lifestyle. There are many risk factors, although there is more emphasis on high hypertension, diabetes mellitus and smoking.


Keywords: cerebrovascular diseases; characterization; risk factors;

*Correspondence to Author:

Cintia Justino Rabelo
Catholic University Center of Quixadá, 63900-257, Quixadá Ceará, Brasil.

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Introduction

The cerebrovascular accident (CVA) is defined as a neurological disease capable of debilitating or leading to death. It develops through the obstruction or rupture of a blood vessel, causing the tissues around the lesion to lack oxygen and compatible substrates for correct functioning. The pathology is subdivided into ischemic stroke (caused by vessel blockage) and hemorrhagic stroke (caused by vessel disruption) [1]. Despite the reduction in cases in recent years, cerebrovascular diseases are still considered the second leading cause of death in Brazil [2].

The aforementioned pathology is a case of great concern for public health worldwide. The CVA is able to leave the victim with incapacity (partial or total) to prepare their daily tasks, which can lead to death, which is its greatest damage, both for the patient and for the family [3].

In Brazil, the number of cases of young adults who die as a result of diseases related to the vascular system has increased. These deaths are already a reality from the age of 20 onwards, highlighting the age group around 40 years old [4, 1]. Young people being affected with stroke is not something recurrent as its incidence is much lower when compared to cases in the elderly [5]. However, the first studies regarding young people victims of the disease emerged more than seven decades ago, since then, the subject has been deepened [6].

1. Concept and classification of AVEs

Every year, about 17 million individuals are affected by CVA and 6.5 million of these patients die, leaving 26 million with sequelae and/or permanently incapacitated [7], also known as stroke, the CVA affects the functional activity of the brain. The brain is governed by continuous irrigation of blood, containing oxygen, nutrients and substrates necessary for proper functioning. With vessel obstruction or total cessation of blood flow, the brain acquires the process of mitochondrial failure, thus causing a decrease in ATP production and consequently neuronal death [8].

EVA are classified according to the cessation of blood flow. Ischemic stroke (EVA) is caused by partial or total obstruction of the vessel, a phenomenon known as embolism (accumulation of fat inside the vessel) or arterial thrombosis (blood clot obstructing the vessel lumen). A hemorrhagic CVA (CVA) occurs when a vessel - an artery or a vein - is ruptured inside the brain, causing the spread of blood and swelling in the region affected by the bleeding [9].

The CVAi is the subtype that has the highest incidence, about 85% of cases, although it is the least dangerous, while the CVA responsible for causing more people to die is hemorrhagic, its incidence is only 10% to 15% of cases, but its dangerousness and mortality are indisputable [10, 11].

2. Etiology of stroke and complications of the pathology

The risk factors for the onset of stroke are divided into two classes, the first of which comprises the non-modifiable, which include age, color, ethnicity and heredity, and the second, the modifiable ones: arterial hypertension, cardiovascular pathologies, dyslipidemias, overweight, diabetes mellitus, smoking, alcoholism, high hematocrit/inflammatory process, periodontal disease and antiphospholipid antibody. Hypertension is the most prevalent risk factor with about 80% of the cause among the types of stroke [12, 13, 14].

Of the post-accident complications, the limitation of functionality of the various limbs and organs stands out, such as: dysarthria (disorder of speech articulation), hemiparesis (partial paralysis on one side of the body) and hemiplegia (sagittal paralysis of the body, more severe than the hemiparesis which is just the difficulty to move) [15, 16].

In the process of cerebrovascular accident, several signs and symptoms capable of warning about the incident are noticeable, enabling rapid intervention and reduction of sequelae. Among the clinical manifestations, the following stand

out: lip deviation, speech problems and understanding of simple commands, mental disorientation, somatosensory deficits, sudden loss of vision in one or both eyes, convulsive agitation, cessation of strength and/or sensitivity in one or both sides of the body, loss of self-control, difficulty walking, presence or absence of severe headaches [7].

3. Diagnosis and treatment of stroke

Diagnosing AVE is not a difficult task. Attention should be paid to and attention to diction instability, motor insufficiency, somatosensory deficits, severe headaches and consciousness disorder. In addition to these observational forms of diagnosis, cerebrovascular imaging exams are performed, as they are able to accurately display the location and extent of the lesion, including the type of stroke suffered [17, 18].

Therapeutic procedures must be started within a maximum of 4 hours after the appearance of symptoms, therefore, the person responsible for the victim must be skilled and take him/her to the emergency room immediately [19].

Palliative care provides the patient with a reduction in sequelae and good chances of rehabilitation and reinsertion. It is proven that the therapy of ischemic stroke victims in hospitals with appropriate sectors reduces the number of deaths and motor and intellectual disability, increasing their chances of recovery by 14% [20, 21, 22].

In the identification of ischemic stroke up to a maximum period of up to 04 hours (therapeutic window), it is indicated that the recombinant tissue plasminogen activator (rt-PA) be administered, which has the neuroprotective capacity and stops the neurodegeneration of the area of ischemia accompanied by imaging examination (previous computerized axial tomography). The monitoring of some vital parameters are closely monitored, such as blood pressure (BP – not exceeding 220/120 mmHg), good blood circulation so that there is no re-hypoxia in affected brain tissues or hypoxia in

non-affected tissues and attention to body temperature. In cases where the therapeutic window has been exceeded, the intervention is made with the drug acetylsalicylic acid [23, 24, 25], while for the treatment of HVA, surgical intervention is necessary in order to drain the hematoma [26].

4. Rehabilitation and prevention of stroke

The teams responsible for the rehabilitation are nurses and physiotherapists still in the hospital bed. After discharge, the patient must be accompanied by both physiotherapists and family members, who will be dedicated most of the time. Educating the family about the possible risks of trauma causing complications is necessary as a preventive measure. Avoiding muscle atrophy and joint stiffness with physical therapy exercises is an extremely important goal when it comes to motor and functional activity [27].

In order to obtain positive results in rehabilitation, dedication, patience and time from the care team is essential, and cannot exceed the patient's capacity. Repetitive sets of physical exercises generate good results, despite their slow evolution. The patient's degree of evolution is also determined through the family's motivation and dedication, as there is greater intimacy and mutual trust [28, 29].

The prevention of stroke in relation to risk factors consists of small daily and consecutive gestures. Adhering to a good diet is essential, this action will prevent overweight and facilitate the reduction of cholesterol, as well as the practice of daily physical activities is extremely important to keep away from sedentary lifestyle, in addition to not drinking alcohol and being assiduous in the monitoring of diabetes (in people with diabetes) and BP (in people who have SAH) decrease the risk of stroke. Avoiding smoking is an extremely important measure, as it is one of the most potent villains of the disease [30, 31, 14].

Conclusion

Given the above, stroke is a major public health problem that affects thousands of people around

the world. There are many risk factors, although there is more emphasis on high blood pressure, diabetes mellitus and smoking. With regard to gender, the increase in cases occurs in both, however, a good part of the literature points to a higher incidence for males.

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