NURSING CARE APPLIED TO GERIATRIC PATIENTS WITH A CLINICAL PROFILE OF SYSTEMIC ARTERIAL HYPERTENSION: A CASE STUDY

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ABSTRACT

This study aims to investigate the health conditions of an elderly person with Systemic Arterial Hypertension (SAH) under nursing care. This is a descriptive research with a quantitative approach, of the case study type. The patient is an 83-year-old man, widowed, retired and born in Manaus-AM, who has a history of untreated SAH for more than 15 years. His main complaint is an acute condition resulting from a cerebrovascular accident (CVA), accompanied by edema in the feet, joint stiffness in the lower limb and visual changes. In the history of the current disease, it is reported that, at the age of 71, the patient had already faced complications resulting from three strokes, which resulted in cognitive and behavioral changes, dysarthria, impaired physical mobility, and edema in the lower limbs. The previous medical history confirms the presence of SAH for more than 15 years, the three previous strokes, partial loss of vision and difficulties in adhering to physiotherapy, in addition to episodes of aggressiveness. Regarding lifestyle habits, the patient used to practice physical activities, such as soccer, but also consumed alcoholic beverages and used tobacco and cigarettes frequently. In conclusion, this case report highlights the serious risks associated with untreated SAH in older adults. He emphasizes the importance of early diagnosis, effective blood pressure control, multidisciplinary follow-up, and the implementation of strategies to improve treatment adherence, with the aim of preventing or minimizing devastating cardiovascular and ocular complications that can significantly affect quality of life and autonomy.

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INTRODUCTION

In Brazil, an individual aged 60 years or older is considered elderly, within this group are the long-lived elderly, who are those aged 80 years or older. Projections for the next 20 years indicate that the elderly population in the country may exceed 30 million, representing about 13% of the total population at the end of this period (Freire et al., 2024).

Systemic Arterial Hypertension (SAH) impacts more than 30% of the adult population, which corresponds to more than one billion individuals, and is considered the leading cause of early deaths globally. In addition, the incidence of the disease is especially high in low- and middle-income countries, which concentrate two-thirds of the cases, largely due to the increase in risk factors in these populations in recent decades (Ribeiro & Uehara, 2022). Approximately half of people living with high blood pressure are unaware of their condition, which puts them at risk for preventable medical complications and death (Gomes et al., 2024).

SAH is considered a chronic non-communicable disease (NCD) with multiple causes, including genetic, epigenetic, environmental, and social factors. The diagnosis of SAH is made when systolic blood pressure (SBP) is equal to or greater than 140 mmHg and diastolic blood pressure (DBP) is equal to or greater than 90 mmHg. According to the 2020 Brazilian Guidelines on Arterial Hypertension, the main risk factors for SAH are genetic, advanced age, gender, ethnicity, overweight/obesity, excessive salt consumption, sedentary lifestyle, alcohol consumption, and socioeconomic factors such as low education, inadequate housing, and low family income (Barroso et al., 2021).

SAH is the most common disease in the elderly and the leading cause of death in this population. Correct diagnosis and proper follow-up are crucial to drastically reduce the number of deaths. In the last two decades, hypertension has prevailed in 30% of the population. Studies carried out between 2003 and 2008 in 35 countries revealed a prevalence of 37.8% in men and 32.1% in women, making this pathology a global public health problem. In Brazil, more than 60% of the elderly (over 65 years old) are hypertensive (Rabelo et al., 2020).

Aging causes thickening of arterial walls and endothelial dysfunction, leading to increased stiffness and decreased vascular compliance. Factors such as salt sensitivity, chronic hemodynamic stress, changes in elastin fibers, and calcium deposition all contribute to these changes. Hypertension, associated with aging, increases the risk of diseases such as coronary insufficiency, heart failure, and stroke (de Vasconcelos & de Oliveira, 2024).

In view of the increase in restrictions on the quality of life of elderly people with hypertension, early diagnosis and immediate treatment are essential. Treatment may include medications, physical activity, healthy eating, or a combination of these approaches. VIGITEL data show a significant increase in mortality from hypertension in people aged 60 years and over in the last three years (Brasil, 2019). Hypertension directly affects the physical capacity, quality of life, social relationships, daily activities, and autonomy of the elderly, reducing their energy, mood, and vitality (Queiroz, Santos, & Mateus, 2022).

The present study raises the following questions: what acute responses occur in systemic blood pressure levels in an octogenarian man after a nursing care session? The research is justified by the need for scientific findings that corroborate or not with existing research, in order to foster a body of evidence. The objective of this study was to identify and analyze the effect of nursing care on the blood pressure of an elderly person.

METHODOLOGY

The theoretical framework in a study comprises a critical and organized analysis of the literature pertinent to the theme, providing a theoretical contextualization and defining the key concepts. It should comprehensively contain previous theories, models, and research, identifying gaps, contradictions, and consensuses in the literature that are important to the focus of the work being developed.

STUDY DESIGN AND FIELD

In general, the study that makes up this work is a clinical case study, of descriptive and observational character, with a combination of qualitative methods. The cross-sectional method was used, so the data were collected in only one period, without follow-up, which was included on a given date. According to Augusto et al. (2013), descriptive research aims to describe the characteristics of certain populations.

The first goal of the work was essentially characterized as descriptive and with a qualitative approach, of the case study type, in this sense, the objective of this study is to describe through the case report itself and systematic construction of the Nursing process with patients with SAH. The last goal was characterized as explanatory-correlated, with a theoretical search on electronic platforms in order to support the discussion of the clinical case and the way it was presented. Among the available platforms, PubMed and Scielo were used. The study was carried out at the home of the elderly in the city of Manaus, Amazonas.

Patient B. G. S. was submitted to home nursing care and institutionalized preventive care based on the link between the Nursing course at the Fametro University Center and the Nursing discipline in the health of the elderly, and through a signed authorization to the current partnership and Informed Consent. The instrument used for data collection was based on the anamnesis script extracted from the book "Anamnesis and Physical Examination" by Barros, (2016), followed by the identification of the patient, main complaint (QP), history of the current disease (HDA), physiological and/or pathological history (AFEP), family pathological history (HPE), lifestyle habits (HV), socioeconomic history (HSE), and physical examination.

ETHICAL PROCEDURE

The present study followed the ethical and legal principles, and all the steps were in line with the requirements established in Resolution No. 466/12, of the Ministry of Health, National Health Council (CNS), following the requirements, data collection began after the acceptance and signing of the Informed Consent Form (ICF), which ensured anonymity, privacy and the right to opt-out at any time from the survey. Data collection took place in March 2025, during the home visit.

CLINICAL CASE REPORT

B.G.S., an 83-year-old man, weighs 79 kg and measures approximately 1.75 m. He is a merchant, widower and born in Manaus-AM. His main complaint is the occurrence of a cerebrovascular accident (CVA), accompanied by edema in the feet, joint stiffness in the lower limb and visual changes. In the history of the current disease (UG), the patient has been diagnosed with systemic arterial hypertension (SAH) for more than 15 years. At the age of 71, he suffered three strokes, resulting in complications such as cognitive and behavioral changes, dysarthria and impaired physical mobility, as well as edema in the lower limbs.

In the previous medical history (HMP), B.G.S. reports sequelae of partial loss of vision and the need for mobility assistance after strokes. He mentions difficulties in adhering to physiotherapy and episodes of aggressiveness during sessions. The family history includes a father with diabetes mellitus and SAH, who died due to an aneurysm. Before the sequelae of the stroke, B.G.S. practiced physical activities, especially soccer, but also consumed alcohol and used tobacco frequently. He is currently retired and receives financial support from his daughter. The medications he uses include Losartan 50 mg/day,

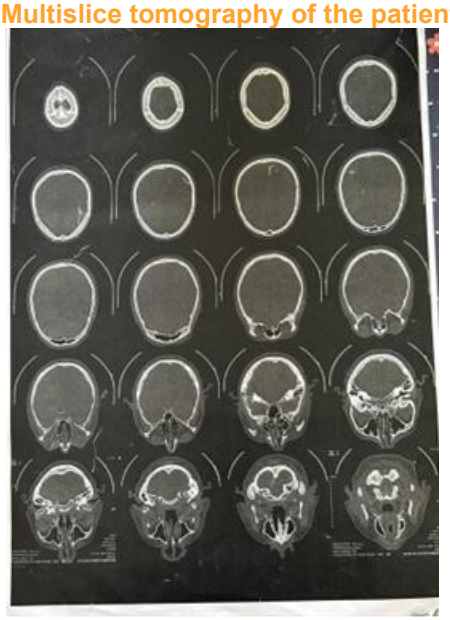
Rivaroxaban 10 mg/day, Quetiapine Hemifumarate 25 mg at night and Phenytoin 100 mg at night.

On physical examination, blood pressure in the right arm was 121 x 73 mmHg. The patient was normocardial, afebrile, eupneic in room air, lucid and oriented in time, space and person, although he had impaired physical mobility. The skin exhibited patches of hyperpigmentation, and cranial examination revealed no abnormalities. The patient had visual sensory deficit, peripheral vasoconstriction, and photoreactive pupils. The mouth had no abnormalities, and the neck was normal. Chest expansion and pulmonary auscultation were normal. The abdomen was painless, globose, and flaccid on palpation, with bowel sounds present. Genitourinary examination indicated oliguria, and the lower limbs showed decreased bilateral motor strength.

Laboratory tests performed included complete blood count, multislice tomography of the skull, magnetic resonance imaging of the skull, and computed tomography of the total abdomen. On 03/09/2023, a multislice tomography scan of the skull was performed (Figure 1), with contiguous computed tomographic sections in the axial plane, parallel to the orbito-meatal line, with a thickness of 5 mm and an increment of 5 mm in the posterior fossa, and a thickness of 8 mm and an increment of 8 mm in the supratentorial region.

Magnetic resonance imaging of B.G.S. (as illustrated in Figure 1) revealed areas of confluent hypodensity in the cerebral white matter, with cortico/subcortical extension, in the deep white matter, and periventricular white matter, especially in the frontoparietal regions. These areas, which do not have an associated expansive effect, may indicate foci of gliosis, without greater clinical relevance. Despite the disconnected speeches that B.G.S. occasionally presents, his cognitive functions remain preserved.

Figure 1. Multislice tomography of the patient's skull.



Source: Research authors, 2025 (image authorized).

In addition, areas of confluent hypodensity in the cerebral white matter, including the brainbrain region and pons, probably correspond to confluent glioses resulting from vascular changes in small vessels. Signs of bilateral carotid atheromatosis were observed, characterized by calcifications in the internal carotid arteries. The prominence of cerebrospinal fluid spaces was also noted, especially in the supratentorial compartment, indicating loss of brain volume typical of the age group.

Confluent gliosis are probably sequelae of the three previous strokes, explaining the cognitive and behavioral changes, dysarthria, and mobility difficulties. The presence of carotid atheromatosis is a significant risk factor for future cerebrovascular events, and loss of brain volume is a neurodegenerative process that may be exacerbated by stroke history and age.

The patient presented ectasia of the supratentorial ventricular system, including the III ventricle, without communication with the cerebral aqueduct and the IV ventricle, associated with mild confluent hypodensity in the periventricular white matter, which may be indicative of gliosis or transependymal edema. The examination suggests that the patient developed non-communicating hydrocephalus in the supratentorial ventricular system, probably due to some complication of previous strokes (such as scarring or other lesions that obstructed the flow of the cerebrospinal fluid). This hydrocephalus may be contributing to the worsening or persistence of cognitive, behavioral, and mobility changes. Transependymal edema, if present, indicates an increase in intracranial pressure that needs attention.

The patient has multiple comorbidities, such as systemic arterial hypertension (SAH), sequelae of stroke and cognitive changes. The use of multiple medications (polypharmacy) can increase the risk of interactions and side effects. Difficulty in following physical therapy and episodes of aggression can complicate rehabilitation. Partial vision loss also requires investigation. Recommendations include blood pressure monitoring and SAH control, physical and neurological rehabilitation to improve mobility and cognitive functions, ophthalmological evaluation to investigate vision loss, psychiatric follow-up to manage episodes of aggression and assessment of medication adherence, in addition to monitoring possible side effects.

RESULTS

The nursing care plan aims to organize and systematize care in order to contribute to the identification of problems and possible interventions according to the client's reality, in order to promote their health and well-being. Based on the anamnesis and physical

examination performed, it was possible to develop the following nursing diagnoses and their respective interventions and expected results. The case presented above allows us to trace the following nursing diagnoses, through the International Nursing Diagnoses: Definitions & Classification (NANDA-I), 2024-2026 (Herdman, Kamitsuru & Lopes, 2024) and the planning of nursing care was done according to the Nursing Intervention Classifications (NIC) (Mccloskey & Bulechek, 2004). Considering the diagnoses presented, the tables below present the interventions that, with their implementation, guide the practice of the nursing team.

Table 1. Nursing diagnoses on the risk of falls related to muscle weakness and changes in mobility secondary to stroke.

Related Factors	Evidence	Goal	Interventions	Evaluation
1. Advanced age (85 years) 2. HAS 3. History of three cerebrovascular accidents (CVAs). 4. Decreased muscle strength and motor coordination. 5. Changes in perception and balance	1. Observation of difficulty in making transfers and moving around in a wheelchair. 2. Limitation in the range of motion of the lower limbs. 3. Patient's report of weakness and tiredness when trying to move. 4. Difficulty performing activities of daily living (ADLs) independently. 5. Physical evaluation showing joint stiffness or muscle weakness.	The patient will demonstrate an improvement in physical mobility, with increased range of motion and ability to perform transfers with minimal assistance, over a period of 4 to 6 weeks.	1. Mobility Assessment: Perform a detailed assessment of the range of motion and muscle strength of the lower and upper limbs. 2. Mobility Exercises: Implement a program of range-of-motion and strengthening exercises, according to the patient's ability, to improve flexibility and muscle strength. 3. Education: Educate the patient and family about the importance of mobility and safe transfer techniques. 4. Use of Assistive Devices: Assess the need for assistive devices (such as grab bars or walkers) to facilitate mobility and safety. 5. Physical Therapy: Consider referral to physical	1. Reassess the patient's range of motion and muscle strength each week. 2. Monitor the patient's ability to perform transfers and activities of daily living. 3. Observe and record any pain or discomfort during exercises or activities. 4. Obtain patient and family feedback on perceived improvement in mobility and comfort. 5. Adjust the care plan as needed, based on the patient's responses and the evolution of the condition.

			therapy, if appropriate, for a more structured rehabilitation program.	

Source: Prepared by the authors, (2025).

Table 2. Nursing diagnoses about excess fluid volume related to systemic arterial hypertension and fluid retention.

Related Factors	Evidence	Goal	Interventions	Evaluation
1. Systemic arterial hypertension (SAH); 2. Changes in renal function; 3. Excessive sodium intake; 4. Immobility or reduced mobility; 5. Use of medications that can cause fluid retention	1. Presence of edema in the lower limbs or other parts of the body; 2. Recent weight gain (more than 1 kg in a day or 2 kg in a week); 3. Difficulty breathing or dyspnea when lying down (if pulmonary involvement); 4. Altered vital signs, such as high blood pressure; 5. Patient's report of a feeling of swelling or discomfort.	The patient will present with reduced edema and fluid volume control, with stable weight and vital signs within normal limits, over a period of 2 weeks.	1. Assessment of Hydrational Status: Monitor vital signs, daily weight, and the presence of edema. 2. Sodium Restriction: Educate the patient and family about the importance of a sodium-restricted diet to help manage fluid retention. 3. Medication Administration: Administer diuretics as prescribed by the physician and monitor the patient's response. 4. Encourage Mobility: Promote activities that encourage patient mobility, as appropriate, to aid circulation and edema reduction. 5. Renal Function Monitoring: Assess kidney function through laboratory tests such as creatinine and electrolytes as needed.	1. Reassess the patient's edema status each day, observing the response to interventions. 2. Monitor blood pressure and vital signs regularly. 3. Assess patient adherence to diet and medication use. 4. Obtain patient feedback on the perception of swelling and comfort. 5. Adjust the care plan as needed, based on the patient's responses.

Source: Prepared by the authors, (2025).

Table 3. Nursing diagnoses on impaired physical mobility related to joint stiffness in the lower limb and wheelchair condition.

Related Factors	Evidence	Goal	Interventions	Evaluation
1. Advanced age (85 years)' 2. HAS; 3. Joint stiffness (possibly due to arthritis or other conditions; 4. Prolonged immobility (use of wheelchair) 5. Decreased muscle strength and endurance	.Observation of stiffness and limitation of movement in the joints of the lower limb. .Difficulty transferring or moving around in a wheelchair. .Patient's report of pain or discomfort in the affected joints. .Decreased ability to perform activities of daily living (ADLs) independently. .Physical evaluation showing reduced range of motion in the lower limb joints.	The patient will demonstrate improvement in physical mobility, with increased range of motion in the lower limb joints and the ability to perform transfers with minimal assistance, in a period of 4 weeks.	Mobility Assessment: Perform a detailed assessment of the range of motion and muscle strength in the joints of the lower limb. Mobility Exercises: Implement a program of range-of-motion and stretching exercises, according to the patient's ability, to improve flexibility and reduce joint stiffness. Education: Educate the patient and family about the importance of mobility and safe transfer techniques. Use of Assistive Devices: Assess the need for assistive devices (such as grab bars or shower chairs) to facilitate mobility and safety. Physical Therapy: Consider referral to physical therapy, if appropriate, for a more structured rehabilitation program	1. Reassess the patient's range of motion and muscle strength each week. 2. Monitor the patient's ability to perform transfers and activities of daily living. 3. Observe and record any pain or discomfort during exercises or activities. 4. Obtain patient and family feedback on perceived improvement in mobility and comfort. 5. Adjust the care plan as needed, based on the patient's responses and the evolution of the condition.

Source: Prepared by the authors, (2025).

Table 4. Nursing diagnoses on the risk of injury related to visual sensory deficit and reduced mobility.

Related Factors	Evidence	Goal	Interventions	Evaluation
1. Advanced age (85 years). 2. Partial loss of vision on both sides. 3. Immobility (wheelchair user). 4. Changes in the perception of the environment.	1. Observation of difficulty in perceiving objects or obstacles in the environment. 2. Patient's report of difficulty in seeing clearly. 3. Need for assistance in moving or performing activities of daily living (ADLs). 4. Increased risk of falls or accidents due	The patient will demonstrate a safe environment and be able to move safely, minimizing the risk of injury, over a 4-week period.	Environment Assessment: Conduct an assessment of the patient's environment to identify and remove obstacles that may cause falls or injuries. Safety Education: Educate the patient and family about safety strategies, such as using assistive devices and keeping the environment well-lit. Mobility Training: Encourage the use	1. Observe and record any occurrence of falls or near falls. 2. Assess patient adherence to safety strategies and the use of assistive devices. 3. Obtain patient and family feedback on perceived safety and comfort when moving in the environment.

	to visual limitation.		of safe mobility techniques, such as the use of canes or walkers, if appropriate. Visual Support: Consider the use of assistive devices, such as loupes or appropriate glasses, to improve visual perception, if indicated. Regular Monitoring: Monitor the patient's visual condition and ability to perform ADLs, adjusting the care plan as needed.	4. Adjust the care plan as needed, based on the patient's responses and the evolution of the condition.

Source: Prepared by the authors, (2025).

DISCUSSION

In B.G.S.'s report, he presented decreased muscle strength and motor coordination and changes in perception and balance due to the onset of stroke. The brain is vulnerable to disturbances in the blood supply, such as ischemia, which can cause neurological changes or irreversible damage. Stroke occurs when blood flow is interrupted, usually due to lack of oxygen, with main causes such as high blood pressure, amyloid angiopathy, and ruptured brain aneurysm. The main symptoms of a stroke include headache, dysarthria, changes in consciousness, aphasia, blurred vision, diplopia, vertigo, balance disorders, hemi or monoparesis, and sensory deficits (Lobo et al., 2021).

Spasticity is triggered by an imbalance between the inhibitory and facilitating influences of the descending pathways that regulate muscle tone, resulting in the deactivation of the flexor muscles and the release of the extensors. Stroke can cause motor and sensory disabilities and dysfunctions, initially leading to hypotonia (reduced muscle tone), followed by hypertonia (increased tone), which can manifest as stiffness or spasticity (Ramos & da Silva, 2023).

Post-stroke complications are wide and diverse. The most observed alterations are: decrease in muscle mass and increased infiltration of muscle fat, hemiparesis, spasticity, rigidity, balance and coordination alterations, tremors, deficit in gross and fine motor skills, sensory alterations, depressive disorders, anxiety and aggressiveness, memory, attention and concentration problems, language and executive function disorders, difficulty in planning actions and perception deficit (de Souza et al., 2025). In addition, high pressure can damage the blood-retinal barrier, increasing the permeability of retinal blood vessels.

This can lead to the leakage of fluids, lipids, and proteins into the retina, causing macular edema and other changes that affect vision (Longo, Martelli, & Zimmermann, 2011).

The association of SAH with increased risk of stroke development is well known and has been shown to be one of the main modifiable risk factors for stroke development and one of the major public health problems. It is worth noting that the participation of people affected by stroke in rehabilitation activities is very restricted, due to the lack of access to free care and financial resources for the private payment of interventions. Thus, to prevent the occurrence of stroke and reduce hospitalization and rehabilitation costs, in addition to identifying risk factors, it is necessary to create health programs (Simão et al., 2024).

The patient reported that he was sedentary and had habits of smoking and consuming alcoholic beverages. The high prevalence of chronic non-communicable diseases (NCDs) such as SAH, which has one of the great health challenges faced by the world population. Although hereditary factors have an influence on the onset of NCDs, it is known that behavioral factors, such as excessive consumption of alcoholic beverages, smoking, sedentary lifestyle, and inadequate diet, also play this role, conferring a multifactorial character to this group of diseases (Siqueira Júnior & Pinto, 2021). It is worth noting that about 74% of stroke cases are attributed to modifiable risk factors, such as smoking, sedentary lifestyle, and inadequate high-calorie diets (Peres, 2021).

It is also necessary, according to Morais (2016), to expand future studies in post-stroke patients to investigate the impact of physical exercises (anaerobic or aerobic) on the recovery of the individual in the acute, subacute and chronic phases, in addition to defining more appropriate parameters to promote gains in functional capacity regarding the increase in the concentration of neurotrophic factors, which can contribute to the individual's recovery.

The statements of diagnoses and interventions of diseases constructed related to the patient on excess fluid volume related to systemic arterial hypertension and fluid retention. In turn, the development of edema in patients with SAH is associated with intravascular volume regulation. It is confused with blood pressure control, since, in the presence of alterations, these are quickly reflected in intravascular volume variations (Gomes et al., 2024).

Changes in renal function and excessive sodium intake occur with the evolution of the disease, due to circulatory demand that leads to a deterioration of cardiac function and other corrective mechanisms that consist of salt (sodium) retention by the kidneys. To keep the sodium concentration in the blood constant, the body retains water at the same time. One of the main consequences of fluid retention is that the greater blood volume promotes

myocardial distension, this distended muscle contracts more forcefully, which causes one of the main mechanisms used by the heart to improve its performance in cases of heart failure. However, as heart failure progresses, excess fluid escapes from the circulation and accumulates in various places of the body, producing swelling (edema) (Araújo et al., 2013).

In relation to impaired physical mobility, it is conceptualized as a limitation in the independent and voluntary movement of the body or of one or more extremities (Herdman, Kamitsuru & Lopes, 2024). Biological, psychological and economic factors, as well as pathologies, can interfere with the nutrition of the elderly. A similar result was obtained in a study conducted at the aforementioned institution, in which 32.8% of the elderly people who moved and had limitations, however, there was a lower frequency of bedridden patients (34.9%) (Gomes et al., 2017).

Hospitalization, advancing age and loss of mobility capacity can contribute to a higher risk of developing low self-esteem among the elderly, as these factors compromise the performance of activities of daily living and social life. Another study revealed that postural instability was associated with this pattern in 18% of the elderly, while 31% had impaired physical mobility. The loss of mobility capacity, hospitalization and advancing age can contribute to a higher risk of developing low self-esteem among the elderly, as it compromises the performance of activities of daily living and social interaction (Sousa et al., 2013).

Finally, excessive fluid volume is a diagnosis characterized as excessive fluid intake and/or retention (Herdman, Kamitsuru & Lopes, 2024). In one study, 42% of older adults were diagnosed with excess fluid volume, which may be related to impaired gas exchange, causing dyspnea, decreased peripheral perfusion, and cyanosis (Barroso et al., 2021).

The main pathophysiological mechanism of the edema caused by amlodipine is the selective vasodilation of the arterioles. By blocking the entry of calcium into arterial smooth muscle cells, the drug promotes the dilation of these vessels and reduces hypertension. The absence of concomitant venous vasodilation increases capillary hydrostatic pressure, facilitating the extravasation of fluids into the interstitium and causing water retention, notably in the lower limbs (Guimarães et al., 2013).

Thus, peripheral edema in elderly patients tends to be more severe and persistent when compared to younger individuals. This makes the use of amlodipine a significant clinical concern for the geriatric population. The lower efficiency of the lymphatic system, common in aging, also contributes to peripheral edema being more severe and persistent in this population, increasing clinical concern with the use of the drug in geriatric patients (de Vasconcelos & de Oliveira, 2024).

In the management of patients predisposed to the development of peripheral edema due to the use of amlodipine, the selection of the therapeutic strategy requires a careful and multifaceted analysis. Drug dose reduction emerges as a possible intervention to attenuate excessive vasodilation and subsequent fluid accumulation. Nevertheless, this approach can compromise the efficacy of blood pressure control, particularly in individuals with refractory hypertension, highlighting the need for constant clinical surveillance and timely therapeutic adaptations (Guimarães et al., 2013).

CONCLUSION

In summary, this case report details the trajectory of an 83-year-old elderly patient with long-standing and poorly controlled systemic arterial hypertension (SAH), culminating in a complex picture of cerebrovascular accident (CVA), peripheral edema, joint stiffness, and significant visual alteration. The patient's past history, including multiple strokes at age 71 and partial vision loss, together with the absence of adequate treatment for SAH, illustrates the deleterious progression of cardiovascular disease and its microvascular complications.

The association between untreated hypertension and the development of visual alterations in this patient reinforces the well-established link between chronic hypertension and damage to the ocular vasculature. Although the report does not specify the exact nature of the visual alteration, the history of long-standing SAH and the previous occurrence of strokes increase the likelihood of complications such as hypertensive retinopathy, retinal vascular occlusions, or ischemic optic neuropathy. This case underlines the critical importance of adherence to antihypertensive treatment and regular medical follow-up, especially in elderly patients with long-term SAH. The presence of additional risk factors, such as family history of SAH and diabetes, and previous lifestyle habits such as alcohol and tobacco consumption, also contributed to the patient's overall cardiovascular risk.

The difficulty in adhering to physical therapy and the episodes of aggressiveness mentioned may be sequelae of previous strokes, further complicating the clinical management and rehabilitation of the patient. The daughter's financial dependence highlights the socioeconomic impact of SAH complications on the patient's and his family's lives. In conclusion, this case report serves as an important reminder of the serious risks associated with untreated SAH in the elderly. It emphasizes the need for early diagnosis, effective blood pressure control, multidisciplinary follow-up, and strategies to improve treatment adherence, aiming to prevent or minimize the devastating cardiovascular and

ocular complications that can significantly impact the quality of life and autonomy of this vulnerable population.

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