

PREVALENCE OF FALLS IN HYPERTENSIVE AND DIABETIC ELDERLY

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SUMMARY

The analysis of the presence of hypertension and diabetes and falls in the elderly seeks to determine a relationship between these variables, aiming to develop and advance prevention and awareness mechanisms regarding this problem that persists in the lives of the elderly. The objective of this study was to determine the prevalence of falls among community-dwelling elderly individuals who have hypertension and diabetes mellitus. The study consists of a data snapshot, in a descriptive and quantitative cross-sectional manner, where economic and sociodemographic aspects, general health, level of frailty, and functional autonomy of the elderly were evaluated. Elderly individuals aged 60 or older, with hypertension and diabetes mellitus, were included in the study. The sample consisted of one hundred and ten elderly individuals (n = 110) who met the inclusion criteria and agreed to participate. It was found that 38.2% (n=42) of the elderly with hypertension and diabetes mellitus had falls in the last twelve months, and 21.8% (n=24) reported having had only one fall in the last twelve months. The results also indicate that 36.84% of the elderly with diabetes mellitus and 50% of the elderly with hypertension reported having fallen in the last 12 months, demonstrating a considerable prevalence of these occurrences in this group. Although preventive actions have reduced the number of falls, it is important to continue focusing on strategies to further decrease this prevalence and improve the quality of life for the elderly.

Keywords: Elderly health; hypertension, diabetes mellitus; falls.

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Introduction

Aging is a normal and inevitable occurrence, marked by physiological and cognitive changes in the body, which limit the functionality of some actions that an elderly person performs daily. In this way, this factor directly or indirectly influences the daily lives of these individuals, reducing muscle mass and cognitive capacity as a person ages, which can increase the vulnerability to falls in the elderly (SILVA, et al., 2018).

It is common knowledge that the elderly are more predisposed to falls, whether due to an environmental or physiological factor. A fall is defined as a sudden and involuntary change in the body's altitude level, which can trigger a harmful incident for the victim. In this sense, one of the factors that contribute to the increased incidence of falls in the elderly is the presence of hypertension and diabetes mellitus (NASCIMENTO; TAVARES, 2016).

Thus, it is essential to conduct an in-depth analysis of the relationship between hypertension and diabetes mellitus, with the incidence of falls in elderly people, aiming to investigate links and unknowns that hinder the progress of healthcare professionals and state assistance initiatives regarding the prevention and awareness of measures that can be taken to mitigate this event that is still persistent in the lives of elderly people (OLIVEIRA, et al., 2014).

The incidence of falls in elderly individuals with hypertension and diabetes mellitus represents a significant challenge for maintaining health, as these conditions are among the main risk factors for falls in this population (SOARES et al., 2013). Therefore, this study aims to determine the prevalence of falls among community-dwelling elderly individuals with hypertension and diabetes mellitus in the municipality of Rio Verde – GO.

Methodology

The study is a descriptive and quantitative cross-sectional analysis that evaluated economic aspects, sociodemographic factors, general health, and the

number of falls in the past twelve months among community-dwelling elderly individuals with hypertension and diabetes mellitus.

The sample consisted of 110 elderly individuals from the community served by the Reference Center for Hypertension and Diabetes (CRHD), located in Rio Verde - GO, recruited by convenience between March and June 2024. The inclusion criteria were age equal to or greater than 60 years, presence of at least one disease, hypertension and diabetes mellitus, and the ability to walk independently. Individuals with cognitive, physical, motor, or neurological impairments that compromised the performance of functional tests were excluded. Data collection was carried out through questionnaires, interviews, tests, observations, clinical evaluations, and record analysis.

For data collection, a form divided into four stages was used: identification data, sociodemographic and economic profile, general health. All these questions were asked and filled out by the researcher himself based on the respondents' answers.

The occurrence of falls in community-dwelling elderly individuals with hypertension and diabetes mellitus was assessed with the following question: "How many falls have you had in the last 12 months?"

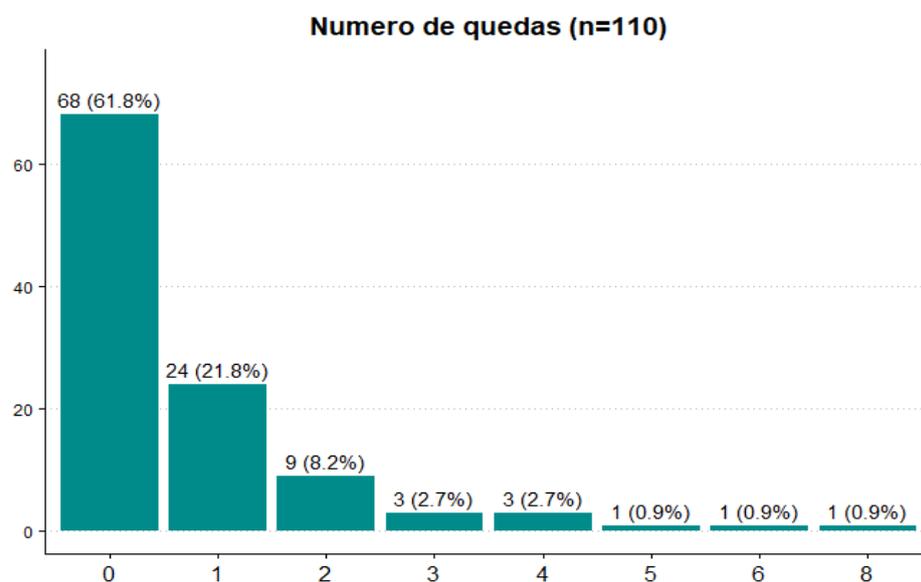
The study was based on Resolution 466/12 of the National Health Council (BRAZIL, 2012) and was approved by the Ethics and Research Committee of the University of Rio Verde on February 20, 2024, through opinion 6.658.796 and CAAE number 77067323.1.1000.5077.

It is important to emphasize that the data were processed and encoded in a database using Microsoft Office, in the 2010 versions of Excel and Word. The categorical variables were processed using absolute and relative frequencies, while the continuous variables were evaluated through the calculation of minimum, average, and maximum values.

Results and discussion

Among the 110 elderly individuals interviewed, 36.4% were found to have hypertension and 51.82% (n=57) had a diagnosis of diabetes mellitus. When asked about the number of falls experienced in the last twelve months: 61.8% (n=68) reported not having experienced any fall events; 21.82% (n=24) reported only one fall; 8.18% (n=9) reported two falls, and 8.18% (n=9) reported three or more falls.

Graph 1. Distribution of elderly community members with hypertension and diabetes mellitus according to the number of falls experienced in the last twelve months (n=110). Rio Verde, GO, Brazil, 2024.



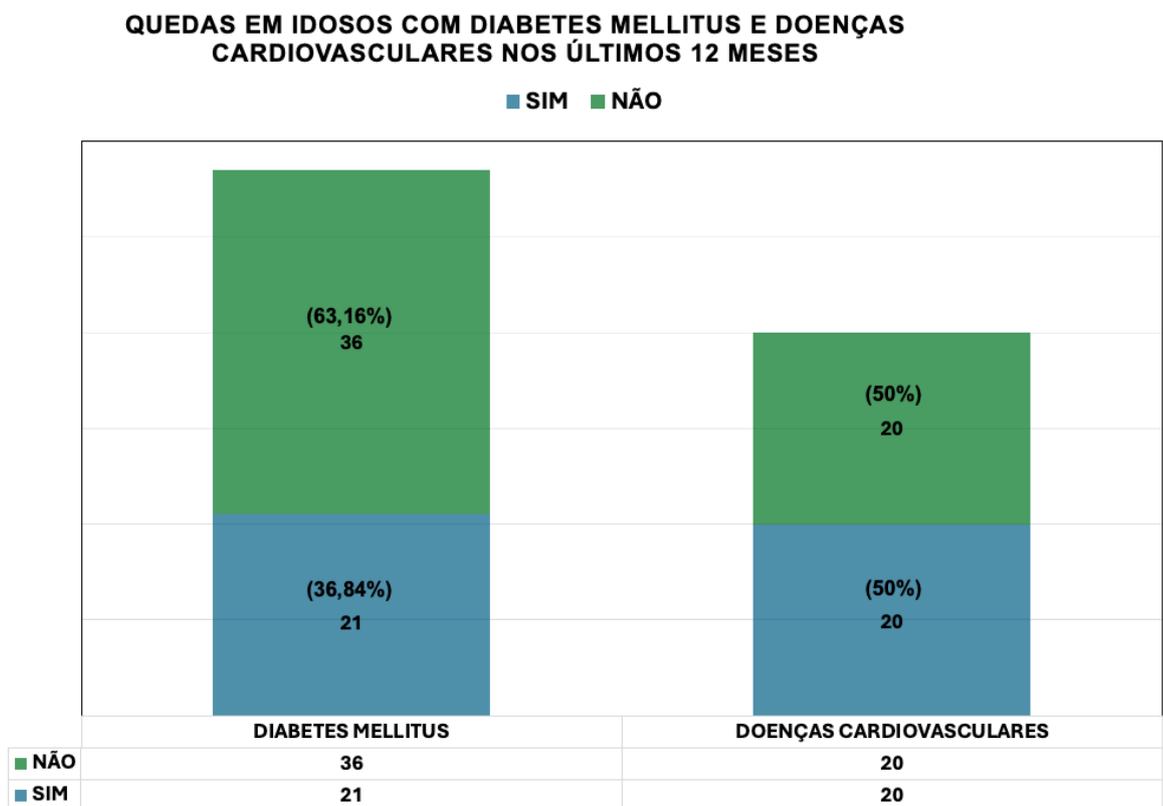
Source: the authors

In the study by Taguchi et al. (2022), a prevalence of self-reported falls of 22.7% was identified among 101 elderly individuals with hypertension and diabetes mellitus, which corroborates with our study, but with a significantly higher prevalence of 38.2% among 110 elderly individuals.

Moreover, Souza et al. (2019), during a 2-year follow-up period with 345 elderly individuals, 20% of them experienced recurrent falls, 17.1% a single event, and 62.9% no falls, which demonstrates a higher prevalence of falls in this study compared to our results.

The results of this study indicate that out of 57 elderly individuals with diabetes mellitus, 36.84% (n=21) reported falls in the last 12 months. Among the 40 elderly individuals with hypertension, 50% (n=20) reported falls in the same period. These results suggest a high prevalence of falls among elderly individuals with these conditions. The following chart demonstrates these results, allowing for a clear comparison between the two groups of elderly individuals.

Graph 2. Comparison between the number of falls suffered by elderly community members with diabetes mellitus and hypertension (n=110). Rio Verde, GO, Brazil, 2024.



Diabetes mellitus

Hypertension

Fonte: os autores

Conclusion

The results of this study indicate a high prevalence of falls among the elderly with diabetes mellitus and hypertension in the studied community. Specifically, 51.8% of the elderly with diabetes mellitus and 36.4% with hypertension reported having fallen in the last 12 months. These numbers suggest that elderly individuals with hypertension and diabetes mellitus are at a higher risk of falls, highlighting the need for special attention and preventive strategies aimed at this population.

These findings reinforce the importance of monitoring and properly treating these diseases in the elderly, not only to control the symptoms of these conditions but also to reduce the risk of falls and their consequent negative impacts on health and quality of life. Therefore, it is important that specific interventions and fall prevention programs be developed and implemented to mitigate risks and promote the well-being of the elderly population with hypertension and diabetes mellitus.

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