

FATAL HOME ACCIDENTS IN THE ELDERLY: A FOUR-YEAR STUDY

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INTRODUCTION

Domestic accidents are a relevant public health problem as they cause frequent hospital admissions and a high number of fatalities, especially in elderly.

OBJECTIVE

Our objective is to study causes of death due to home injuries among the elderly, as well as the socio epidemiological profile of the victims.

MATERIALS AND METHODS

Our study includes the fatal cases of domestic accidents occurring in the elderly (age over 65 years defined by WHO) in which autopsies were performed in the Forensic medicine department of Charles Nicole Hospital in Tunis, over a period of four years: from January 2015 to December 2018.

RESULTS

- We collected 118 cases of fatal home injuries over the study period
- 21.2% (25 cases) of them occurred in elderly subjects.
- The majority of cases (18 cases) were observed in 2017 (**Figure 1**).

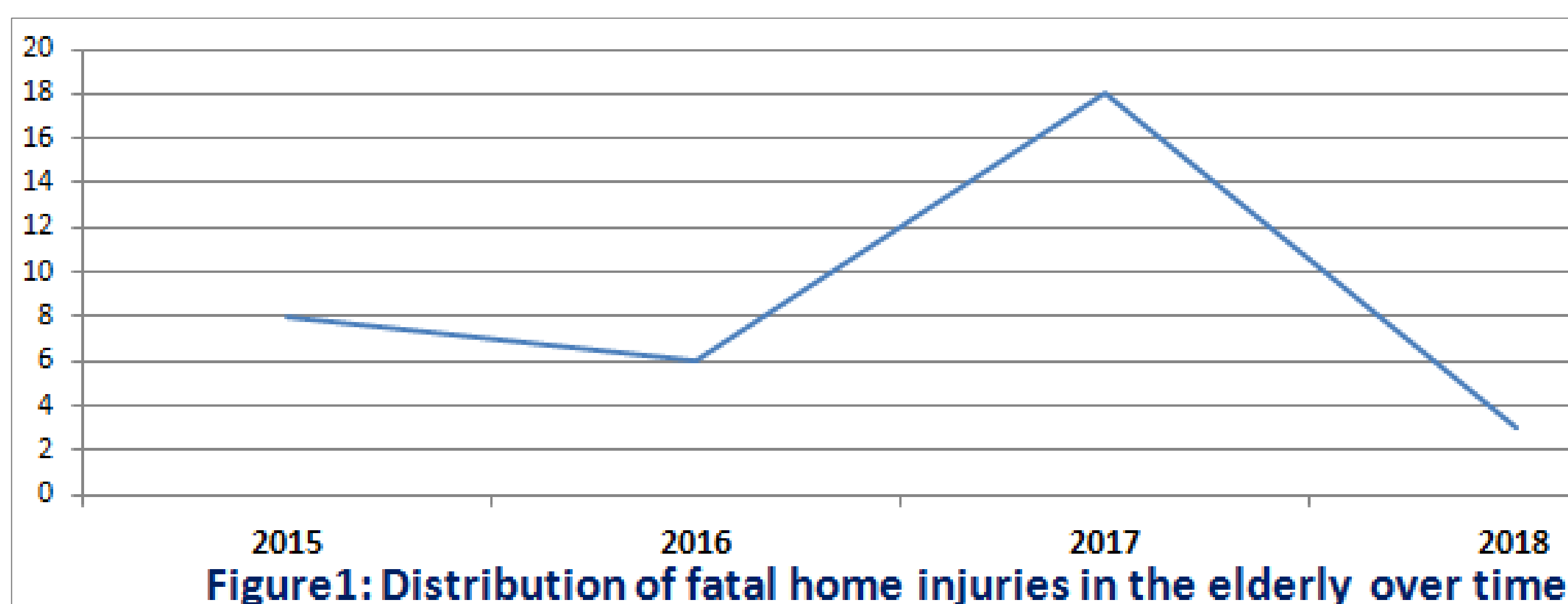


Figure 1: Distribution of fatal home injuries in the elderly over time

- Male and female subjects were equally found (13 men vs. 12 women).
- The mean age was 76.2 years [66-95]

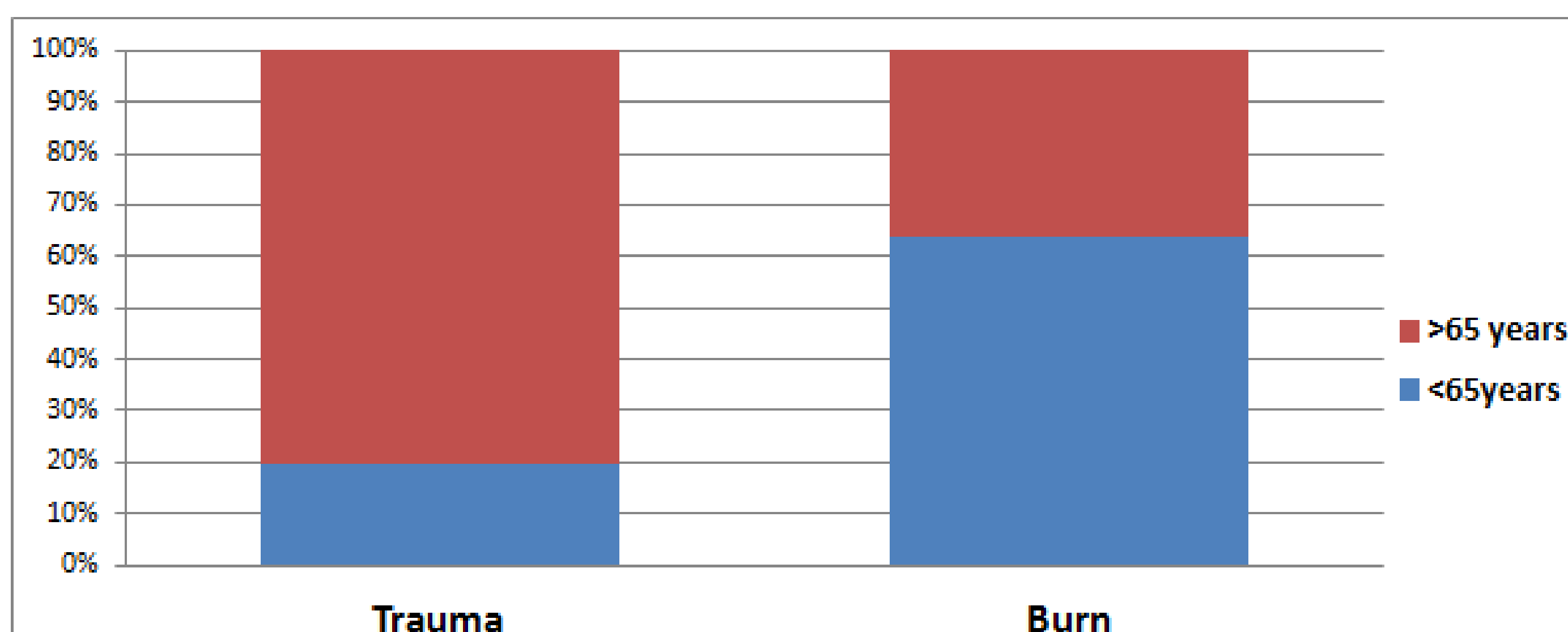


Figure 2: Distribution of causes of death among the young and the elderly

- Most home injuries were secondary to traumatic incidents and included falling (16 cases), while house fires occurred in 9 cases (**Figure 2**).
- Deaths were directly caused by the incident in 4/5 of the cases, while the rest of them (5 cases) were secondary to parallel events (arrhythmia, pulmonary embolism, midgut volvulus...) (**Figure 3**).

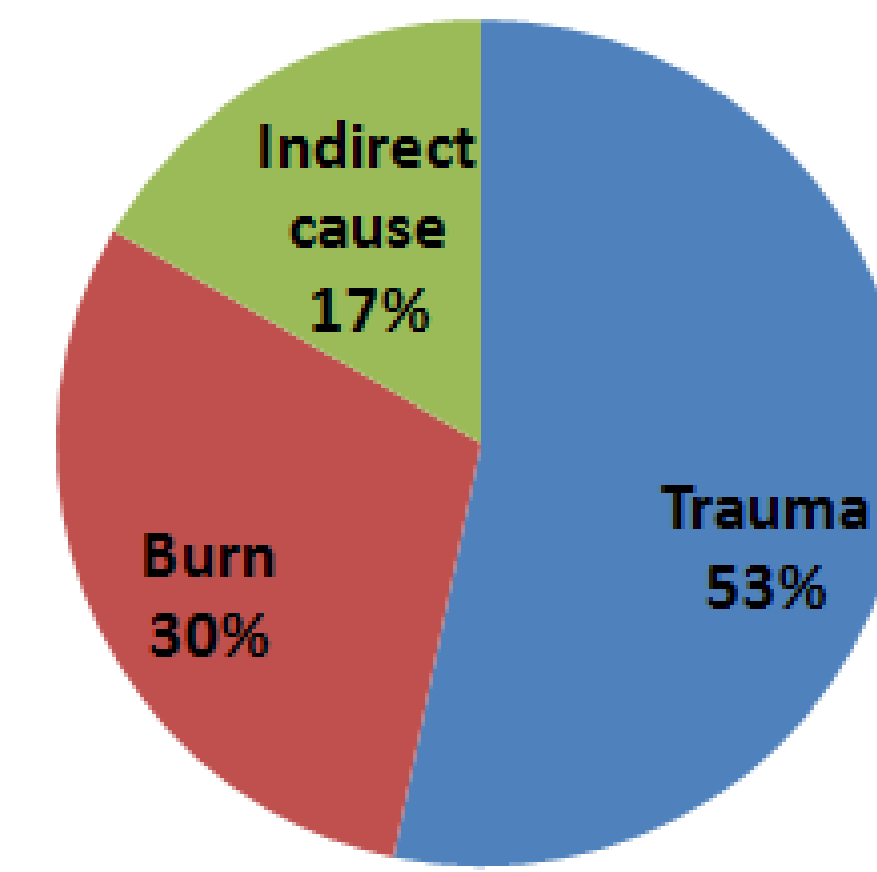


Figure 3: Distribution of causes of fatal domestic accidents in the elderly

DISCUSSION

- The incidence of home accidents rises with age: from 6% at 65-74 years to 11% for the over 85s (1)
- Up to 38.6% of the elderly were victim of a domestic accident within the year. (2)
- The most common type of accident was falls. The frequency varies from 31.9% to 87% of all accidents according to authors) (2-4).
- Dwelling-house fires were the second most common home accidents in the elderly (2,3) . Approximately one-quarter of people killed in dwelling-house fires are over 75 years of age (5)
- Some authors associated poor housing conditions, being female, living alone, having a chronic illness, physical and hearing disability, wearing eyeglasses, inactivity, use of assistive devices and more than four drugs with having a home accident. (2)
- In elderly subjects, the locomotion disorders are associated with greater risk of falling. Falls are a major source of morbidity and mortality among older adults.(6)
- Traumatic injuries were reported in victims with comorbidities such as heart disease, cerebrovascular disease, infarction, diabetes and symptoms such as alterations in consciousness, fainting and collapse, dazed and dizzy. (3)
- Malaise has been found to be a direct cause of falls in the elderly (3)
- Half fatal fire accidents were secondary to poorly maintained electrical items, particularly electric underblankets. It can reflect social isolation, cognitive or physical impairment or poverty (5) Many elderly individuals living in the community have reduced capacity to detect and escape fire.

CONCLUSION

Domestic accidents still are a major source of morbidity and mortality among older adults and represent a major public health problem.

Strategies designed to prevent home accidents may require different emphasis in elderly populations.(5)

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