

Falls in the Elderly

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Abstract

Falls are one of the major problems among the geriatric population and are a marker of poor physical and cognitive status. The current practice generally focuses on the injury rather than a complete assessment of underlying cause. If the risk factors are identified early and screening is done to high risk elderly then, majorities of the falls are potentially preventable.

Keywords: Elderly; Falls; Intrinsic Factors; Extrinsic Factors; Preventable; Environment.

Introduction

The global population of people aged 60 years & older, would be more than double, i.e. from 542 million in 1995 to about 1.2 billion in 2025 [1]. And in India, geriatric population will reach up to 198 million in 2030 (union health ministry report), which is the area of concern, especially their health with medical and psychological problems. Falls are one of the major problems in the elderly and considered one of the "Geriatric Giants" (in mobility, instability, incontinence and impaired intellect/memory).

Definition

Falls are defined as inadvertently coming to rest on the ground, floor or other lower level, including intentional change in position to rest [2]. The fall discussed include slips and trips occurring both inside and outside the home.

Epidemiology

According to WHO 2016 fact sheet, falls are the second leading cause of accidental or unintentional injury death worldwide. Each year an estimated 424000 individuals die from falls globally, in which 80% are from low and middle- income countries. Incidences shows that rates from falls increase with age group 65-74 years, men have higher death rates

than women, but after the age of 75, women are more prone to die as a result of fall. Most of the cases are found to unreported by older people, just because they are accepted as "normal" during old age. Many studies also reveal that there is the higher prevalence of osteoporosis among older women, which make them more likely to have fall related fractures. About 40% post fall cases, who were hospitalized due to hip fracture, could not return to normal living.

Risk Factors

Several risk factors are found to be associated with fall. It can be intrinsic, extrinsic and situational.

Intrinsic factors include impairment in maintaining balance and stability while standing, walking, or sitting. The decrease in visual acuity, contrast sensitivity, depth perception and dark adaptation, consumption of psychoactive drugs, & some disease conditions like Alzheimer's, Parkinson's, depression, dementia, orthostatic hypotension & musculoskeletal problems, also adds on to the risk of fall among geriatrics.

Extrinsic factors include presence of hazards like loose carpets, slippery surfaces, glare surfaces, unstable furniture, pets, clutter, cords in pathway, absence of support (in the chair, handrails, grab bars), lack of adequate lighting, improper foot wares, inappropriate mobility devices etc.

Situational factors includes certain activities like

rushing to the bathroom (especially during the night when a light is not adequate), rushing to answer the telephone and while walking with high heels.

Assessment

Identification of the risk factor plays an important role in the prevention of fall among elderly.

Risk Factors to Assess Includes

- History of previous fall
- Age
- Gender
- Medical conditions especially for osteoporosis (in women)
- Cognitive impairment
- Balance and gait
- Ambulatory aids
- Environmental hazards
- Vision
- Systolic hypotension
- Periodic medication review

The most important part of a fall risk assessment is to identify a person's individual risk profile and tailor interventions to those risk factors. Assessment in depth will help us to rule out the risk and to take better prevention strategies. Assessment of environmental hazards is also very necessary to find out. Getting an in-home safety evaluation from an occupational therapist or healthcare provider can be beneficial.

Interventions

Patient and Family Education

How to get up from a fall:

- Locate a sturdy piece of furniture
- Roll over onto your side
- Push your upper body up
- Crawl on your hands and knees
- Put your hands on the chair seat
- Slowly rise from the kneeling position
- Turn your body to sit in the chair
- Regain your composure

If you can't get up, then:

- Cry out
- Bang away
- Slide over to a telephone
- Get into a comfortable position and wait

Prevention

Fall prevention strategies should be comprehensive and multifaceted. Public health initiative should define the burden, explore variable risk factors and utilize effective prevention strategies. They should support policies that create safer environments and reduce the risk of fall.

Four Things you can do to Prevent Falls

- Begin a regular exercise/yoga (Tai Chi) program: it has been found that exercises that build, balance and lower- body strength, reduces the risk of falls by 33%.
- Review of medications and regular follow -up check up should be done.
- Get your vision checked by an eye doctor atleast once in a year.
- Make your home safer by:
 - Installing handrails on both sides of stairways
 - Marking first & the last step with tape or paint
 - Install grab bars near shower, next to toilet
 - Install elevated seat on toilet

Conclusion

Elder population is at high risk of fall leading to increasing number of morbidity and mortality. Recurrent falls due to intrinsic factors need overall evaluation of the underlying medical condition and require preventive measures. A majority of falls are predictable and therefore preventable.

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