Falls in Older People: A Perspective from Kurdistan of Iraq

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ABSTRACT

Falls are increasing worldwide in an ageing population. Commonly multi-factorial, falls in the elderly need multidisciplinary teams to help their prevention and recurrence. This was a retrospective study analyzing falls and factors associated with them over a 12 month period in the city of Sulaimani, Kurdistan of Iraq. The results demonstrated well established factors contributing to falls such as age, female sex with multiple co-morbidities and medications. More specifically to the Kurdistan population the results related falls closer to morning and prayer time or when washing. In addition, those affected by falls are commonly living with other family members. These results and studies similar to this will allow the development of specific interventions and services to help address risk factors unique to a developing, Middle Eastern population.

Key words: Falls, Elderly, Prevention, Kurdistan

Introduction

The global elderly population is increasing and as a consequence so is the burden of non-communicable diseases.(1) Falls in the elderly are a major cause for attending general practitioners (GP) surgeries and emergency departments. Mechanical (i.e. accidental falls) are uncommon among the elderly population.(2) Falls in the elderly can be caused by the interaction of intrinsic and extrinsic factors. Significant examples include; patients with cognitive impairment, those with foot deformities and medications, especially anti-depressants.(3,4)

Falls in the elderly in developing countries are increasing yet few studies exploring their aetiology and prevention have been published.(5) In Middle Eastern countries little is known about the prevalence and features of falls. Data from an Iranian multicentre study involving 2186 patients revealed that hip fracture occurred in 26.2%. The study also identified that over two thirds of falls occurred indoors.(6) The majority of published studies on falls are from Western societies and as a consequence the prevention strategies are based on these populations. Sulaimany is a town in a newly oil driven economically prosperous Kurdistan; an autonomous region from the Iraqi central government since 1991. The aim of this paper is to explore the risk factors for falls specific to this population group. In gaining a more detailed understanding of the causes of falls in a developing population a more relevant prevention strategy can be established instead of simply implementing a Western guideline.

Methods

This retrospective study collected data on falls presenting to hospital over a twelve month period. A proforma was used to collect information. This included patient demographics and factors associated with the fall (Appendix, Table 1). All patients admitted to the orthopedic, rheumatology and emergency departments of the Sulaimany teaching hospital who fell from at least their height level were included in the twelve month window. Certain outcomes were also measured such as severity and type of injury or fracture. Admitting medical teams were directed to fill out the pro forma.

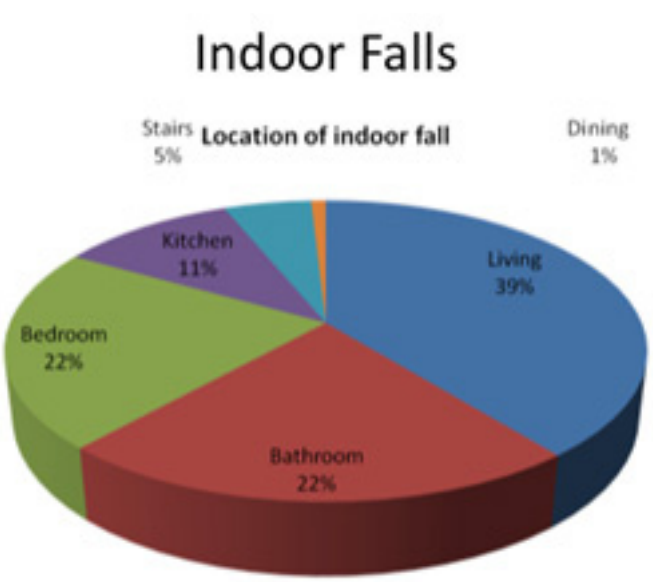
Key points:

- Inclusion criteria; patient above the age of 60 who attended hospital due to a fall (defined as falling from at least their own height).

- Data was collected using a pro forma questionnaire (sample is attached) in the Sulaimany Accident and Emergency Department, medical and surgical wards.

Results

300 falls presented to Sulaimany hospital during the twelve month window. 197 were female compared to 103 males. The mean age of fallers was between 70 and 74. The majority occurred in the morning (72.6%) whilst the patient was indoors (72.3%). Of the 300 falls 68.3% had fallen before and 80.6% were on medications. 82% lived with a partner or family and the remaining 18% lived alone.



Social History

Smoker	Non smoker
192	108

Drinks alcohol	Does not drink alcohol
23	277

Lives alone	Does not live alone
54	246

Discussion

Falls are multifactorial and as a result so too are their prevention.(3) The risk factor for falls consequently varies between populations and different cultural groups. Identifying the risk factors for falls in elderly subpopulations will allow the design of more specific interventions. Cultural issues should be considered in falls prevention.

The daily routine, support network and approach to healthcare will differ between subpopulations. Many similarities are evident with the typical faller in Western populations. Older females with multiple medical co morbidities and medications account for the majority of fallers. The differences however are apparent. Fallers tend to live in families or with partners. In Sulaimany the elderly remain living in family homes. Notably there is an absence of residential or care homes. Morning falls are more common (218 of the 300 falls). Washing and toileting represent a major difficulty for elderly patients which is emphasised by a lack of toileting facilities. The toilet facilities are commonly a hole at ground level. This is compared to western style toilets which are raised at least two feet from the ground. Toileting therefore requires a greater level of physical effort and manoeuvrability. Facilities for washing in Sulaimany are different from the UK. Waist level basins are uncommon. Bending is required to reach for washing taps which are commonly located on or near to the floor. The majority of falls are also indoors. The reasons behind this are most likely twofold. Firstly the housebound elderly population has a higher disease burden and reduced mobility. Secondly, certain indoor areas pose added risks for falling. These areas can include the bathroom but also other areas around a family house that elderly populations in the UK do not encounter in a typical retirement dwelling.

Morning Prayer is before sunrise. Visual impairment and difficulty identifying the surroundings are proven risk factors for falls. Reduced light at this active time of day will compound these risks.(8) Kurdish dress for ladies are a multi-layered

long dress. A high level of dexterity is required to perform the activities of daily living in this traditional style of clothing. The risk of falls is also increased due to the clothing's potential interference with the environment. Covering the whole body with such dresses for warmth has proven to reduce exposure to sun light, hence reducing Vitamin D and calcium metabolisms which contributes to osteoporosis.(9)

This study has made some steps to uncovering the many factors causing people to fall in Kurdistan. Only patients who presented to hospital were included. This represents a small number of total fallers as those who fall in the community and do not present to secondary care are being missed. By only selecting patients who have sustained an injury it is impossible to calculate the prevalence for all falls. Similarly certain risk factors and characteristics are potentially being underestimated. Further studies involving community healthcare is needed to further improve the knowledge of falls and associated risk factors. Such research will also benefit Western fall prevention strategies with many populations demonstrating an increasing Muslim population.(10)

Recommendations from the paper:

- Consider falls risk specific for the Sulaimany population and may be nationally for Kurdistan.
- Occupational assistance to assess when fallers are at risk and aid implementation of prevention strategies such as; help during Morning Prayer, installing waist high basins and ensuring areas are well lit before prayer.
- Adopting a combined approach to falls management with other specialties and allied health professionals.
- Harnessing the presence of multiple family members within the faller's home. Family intervention and education will be an important tool in preventing falls in the Kurdistan community
- The local health authority has to establish occupational assessment therapy and introduce them to assess fallers' environment.

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