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Original Research

Risk factors for injury in patients with and without dementia

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ABSTRACT:

Background: Permanent alterations in typical brain activity that impair speech, memory, and daily function are referred to as dementia. Many types of dementia are characterized by a slow, continuous decline in judgment, decision-making, problem-solving, memory, and language. Moreover, anxiety, emotional instability, aggressiveness, roaming, and disinhibition are frequent behavioral abnormalities. The present study assessed risk factors for injury in patients with and without dementia. **Materials &Methods:** 65 cases of dementia of both genderswere kept in group I and non- dementia subjects were kept in group II. Parameters such as cause of injury, injury diagnosis and risk factors for injury was recorded. **Results:** Group I had 35 male and 30 female and group II had 32 male and 33 female. The mode of injury was poisoning in 22 and 20, fall in 17 and 15, traffic in 12 and burn in 14 and 11 in group I and II respectively. Injury diagnosiswas dislocation in 27 and 25, fracture in 18 and 24, open wound in 13and 11 and injury to blood vessel in 7 and 5 in group I and II respectively. The difference was non- significant (P> 0.05). **Conclusion:** Therisk factors for injury in patients with dementia and without dementia was dislocation, open wound, fracture and injury to blood vessel.

Keywords: brain activity, Dementia, roaming

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INTRODUCTION

Permanent alterations in typical brain activity that impair speech, memory, and daily function are referred to as dementia. Many types of dementia are characterized by a slow, continuous decline in judgment, decision-making, problem-solving, memory, and language. Moreover, anxiety, emotional instability, aggressiveness, roaming, and disinhibition are frequent behavioral abnormalities. Driving is a complicated undertaking, and dementia may impair mental functions including memory, concentration, judgment, and visual perception that are necessary for safe driving. The hazards connected with driving may go unrecognized in the early stages of dementia since the symptoms only occasionally manifest. This is partly because there is an estimated 3-year average lag between the onset of dementia symptoms and an official diagnosis.

A person with dementia may be able to drive for up to 24 months following their diagnosis, and in certain situations, even into the most advanced stages of the illness.4 In addition to a moderately extended mental status examination by a clinician to distinguish impairments in memory, language, attention, and visuospatial cognition such as spatial orientation, executive function, and mood, the diagnosis of dementia requires a history evaluating for cognitive decline and impairment in daily activities, with corroboration from a close friend or family member. The cognitive exam can be started and organized with the use of quick screening questionnaires for cognitive impairment. Neuropsychological testing, however, can aid in a diagnosis if the assessment is ambiguous (for example, symptoms present but examination normal). Dementia cause may be ascertained through physical examination. The present study assessed risk factors for injury in patients with and without dementia.

MATERIALS &METHODS

The present study comprised of 65 cases of dementia of both genders. All patients agreed to participate in the study and gave their written consent.

Demographic data such as name, age, gender etc. was recorded. Patients with dementia were kept in group I and non- dementia subjects were kept in group II. Parameters such as cause of injury, injury diagnosis and risk factors for injury was recorded. The results were subjected to statistical analysis. P value less than 0.05 was set significant.

RESULTS

Table I Patients distribution

Groups	Group I (Dementia)	Group II (Non-dementia)
M:F	35:30	32:33

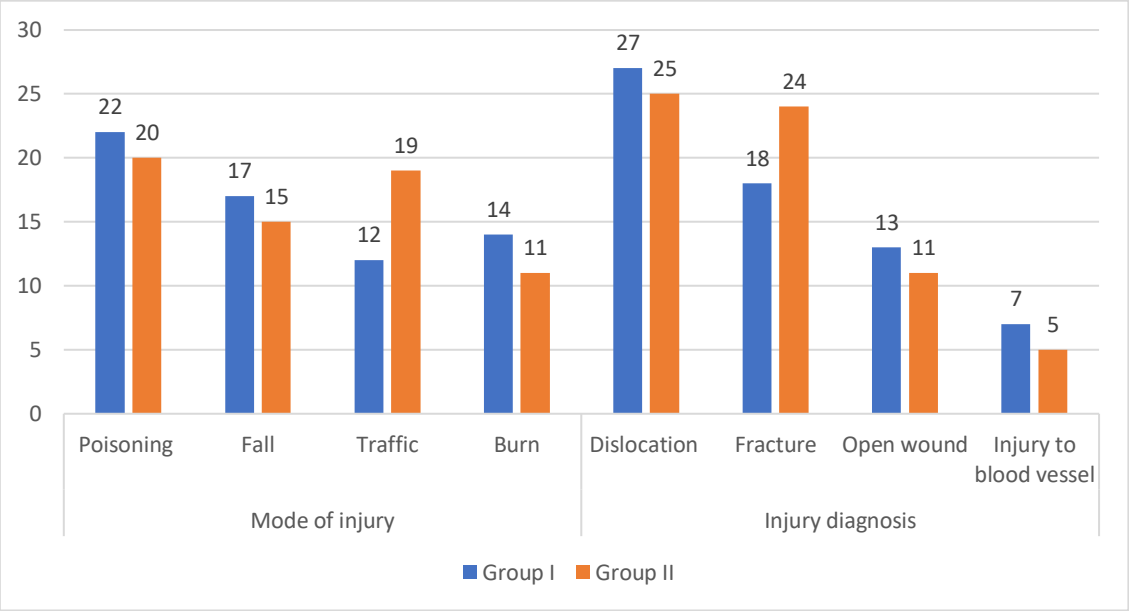
Table I shows that group I had 35 male and 30 female and group II had 32 male and 33 female.

Table II Assessment of parameters

Parameters	Variables	Group I	Group II	P value
Mode of injury	Poisoning	22	20	0.91
	Fall	17	15	
	Traffic	12	19	
	Burn	14	11	
Injury diagnosis	Dislocation	27	25	0.72
	Fracture	18	24	
	Open wound	13	11	
	Injury to blood vessel	7	5	

Table II, graph I shows that mode of injury was poisoning in 22 and 20, fall in 17 and 15,traffic in 12and burn in 14 and 11 in group I and II respectively. Injury diagnosis was dislocation in 27 and 25, fracture in 18 and 24, open wound in 13 and 11 and injury to blood vessel in 7 and 5 in group I and II respectively. The difference was non- significant (P> 0.05).

Graph I Assessment of parameters



DISCUSSION

One prevalent issue in public health is dementia.8 Globally, there are already 47 million cases of dementia, and by 2050, there will likely be 131 million cases. Over the past 20 years, the United States (US) and other industrialized countries have seen reductions in the age-adjusted incidence of dementia; these reductions may be linked to rising levels of formal education. However, without improved therapies or preventive medication, the unfavorable consequences of dementia will continue to worsen.The present study assessed risk factors for injury in patients with and without dementia.

We found that group I had 35 male and 30 female and group II had 32 male and 33 female.In their study, Meuleners et al. included people with dementia who had an index hospital admission (n = 1,666, 34%) and those without dementia (n = 3,636, 66%) who had driven in at least one car accident. In the three years preceding the index hospitalization, the dementia group (43%), compared to the comparison group (30%), had a higher frequency of one or more collisions as the driver. After controlling for pertinent

covariates, the probability of an accident was 93% lower for those with dementia in the three years following an index hospital admission with dementia than for those without dementia in the prior three years.

We found that mode of injury was poisoning in 22 and 20, fall in 17 and 15, traffic in 12 and burn in 14 and 11 in group I and II respectively. Injury diagnosiswas dislocation in 27 and 25, fracture in 18 and 24, open wound in 13and 11 and injury to blood vessel in 7 and 5 in group I and II respectively. According to Chen et al.'s 14-year follow-up data, hospitalizations linked to injuries were more common in those with dementia than in those without (19.92% vs. 18.86%, hazard ratio (HR) = 1.070, $p < 0.001$). In terms of the injury's cause, hospitalizations for suffocation (HR = 2.301, $p < 0.001$), accidental drug poisoning (HR = 1.485, $p < 0.001$), falls (HR = 1.076, $p < 0.001$), and self-inflicted injuries (HR = 0.670, $p < 0.001$) or traffic accidents (HR = 0.510, $p < 0.001$) were less common among individuals with dementia than in those without dementia. Subgroup analysis revealed that persons with any of the three kinds of dementia (vascular dementia, HR = 2.079, $p < 0.001$; Alzheimer's disease, HR = 1.156, $p < 0.001$; other dementia, HR = 1.421, $p < 0.001$) had a higher risk of abuse or homicide than did persons without dementia. Dementia diagnosis, female gender, age 65–74, and seeking medical attention for an injury within the previous year were risk factors for overall harm.Lach et al[14] showed that elderly populations with cognitive impairment were two times more likely to fall than were those without cognitive impairment. Even people with mild cognitive impairment (MCI) were at a higher risk of falls.

CONCLUSION

Authors found that risk factors for injury in patients with dementia and without dementia was dislocation, open wound, fracture and injury to blood vessel.

REFERENCES

1. Allan LM, Ballard CG, Rowan EN, Kenny RA. Incidence and prediction of falls in dementia: a prospective study in older people. PLoS One. 2009;4(5):e5521.
2. Yan E, Kwok T. Abuse of older Chinese with dementia by family caregivers: an inquiry into the role of caregiver burden. Int J Geriatr Psychiatry. 2011;26(5):527–535.
3. Cooper C, Selwood A, Livingston G. The prevalence of elder abuse and neglect: a systematic review. Age Ageing. 2008;37(2):151–160.
4. Erlangsen A, Zarit SH, Conwell Y. Hospital-diagnosed dementia and suicide: a longitudinal study using prospective, nationwide register data. Am J Geriatr Psychiatry. 2008;16(3):220–228.
5. Draper B, Peisah C, Snowdon J, Brodaty H. Early dementia diagnosis and the risk of suicide and euthanasia: Elsevier; 2010;6(1):75–82.
6. Mitchell RJ, Harvey LA, Brodaty H, Draper B, Close JC. Dementia and intentional and unintentional poisoning in older people: A 10 years review of hospitalization records in New South Wales, Australia. Int Psychogeriatr. 2015;27(11):1757–1768.
7. Woolf A, Fish S, Azzara C, Dean D. Serious poisonings among older adults: a study of hospitalization and mortality rates in Massachusetts 1983–85. Am J Public Health. 1990;80(7):867–869.
8. Härlein J, Dassen T, Halfens RJ, Heinze C. Fall risk factors in older people with dementia or cognitive impairment: a systematic review. J Adv Nurs. 2009;65(5):922–933.
9. Seyfried LS, Kales HC, Ignacio RV, Conwell Y, Valenstein M. Predictors of suicide in patients with dementia. Alzheimers Dement. 2011;7(6):567–573.
10. Cipriani G, Vedovello M, Lucetti C, Di Fiorino A, Nuti A. Dementia and suicidal behavior. Aggress Violent Behav. 2013;18(6):656–659.
11. Orriols L, Avalos-Fernandez M, Moore N, Philip P, Delorme B, Laumon B, et al. Long-term chronic diseases and crash responsibility: A record linkage study. Accid Anal Prev. 2014;71:137–143.
12. Meuleners LB, Ng J, Chow K, Stevenson M. Motor vehicle crashes and dementia: a population-based study. J Am Geriatr Soc. 2016;64(5):1039–1045.
13. Chen R, Chien WC, Kao CC, Chung CH, Liu D, Chiu HL, Chou KR. Analysis of the risk and risk factors for injury in people with and without dementia: a 14-year, retrospective, matched cohort study. Alzheimer's research & therapy. 2018 Dec;10(1):1-2.
14. Lach HW, Harrison BE, Phongphanngam S. Falls and fall prevention in older adults with early-stage dementia: an integrative review. Res GerontolNurs. 2016;10(3):139–148.