

*Research Article***Prevalence of dizziness in Egyptian elderly patients****Hesham M. Samy, Dalia F. Mohammed and Aisha Kh. Youssef**

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Abstract

Background: Dizziness in old age may have a large impact on daily life. Dizziness can lead to reduce quality of life. The risk of dizziness increases with age and frailty level. Dizziness is a strong risk factor for falls, and preventing falls and dizziness in older people is essential. **Objectives:** To estimate prevalence of dizziness in elderly population. **Methods:** 450 Subjects will be chosen from attendees of outpatient's clinics, who are sixty years or older. Full neurotological examination using Video goggles (spontaneous Nystagmus, with and without fixation, positional & positioning test, Romberg test) were applied. **Results:** Out of 450 persons tested, 144 (32%) had history of dizziness. There was association between old age and dizziness. Abnormal findings in office test were recorded in the study group. **Conclusions:** As dizziness is prevalent in elderly population, early diagnosis and proper management of underlying pathology, can help in reducing falls and its subsequent complications in senior citizens.

Key words: dizziness, elderly persons.**Introduction**

Dizziness is a major etiology of falls, and preventing falls and dizziness in older people is essential. There is increased incidence of dizziness in elderly persons that may reach 30%, and this number increases because of aging. Disorders that cause dizziness are considered a fatal problem in old age so that it needs adequate diagnosis. Vertigo is a major problem in the elderly as persons have difficulty to describe their complaint. Dizziness problem burden is increasing [(Fumio, 2001), (Walther, Rogowski, Schaaf, Hörmann, & Löhler, 2010)].

Vertigo is not alternative description for dizziness. They are caused by disturbance in motor or sensory systems that lead to gait, posture problems. Vertigo patients feel movement of the environment and this occurs because of problem in vestibular system either central or peripheral components. Dizziness complaint are composing of many symptoms [(Jönsson, Sixt, Landahl, & Rosenhall, 2004; Sturnieks, St George, & Lord, 2008)].

Changing in proprioception due to aging, impairment in vestibular system, loss of central integration is called presequilibrium or pre-sbystasis [(Piker & Jacobson, 2014), (Scherer, Lisboa, & Pasqualotti, 2012)].

Aims of Work

Estimate prevalence of dizziness in elderly population.

Patients and methods

450 elderly patients above 60 years who admitted audio-vestibular unit for hearing or vestibular assessment. Patients were subjected to:

Office test: including (spontaneous nystagmus, with and without fixation positional & positioning test and Romberg test)

Statistical analysis

After filling the questionnaires, the data were gathered and entered into the Statistical Package of Social Science (SPSS), version 20. All analyses were done using SPSS, version 20. Cleaning of data as a first step was done to detect missing values and invalid responses.

Results**History of dizziness in study participants (Figures 1):**

Figure (1) shows that the persons with history of dizziness was 144 (32%), persons with no history of that the persons with history of dizziness was 306 (68%). Binomial test shows that there was a statistically significant association between history of dizziness and old age. Office test (table 1):

The abnormal finding in office tests for spontaneous nystagmus in 12 (2.6%) subjects, positive positional nystagmus 39 (8.6%), positive positioning nystagmus 47 (10.4%),

abnormal Romberg test in 14 (3%). Binomial test shows that there was a statistically significant association between each of the abnormality in elderly subjects.

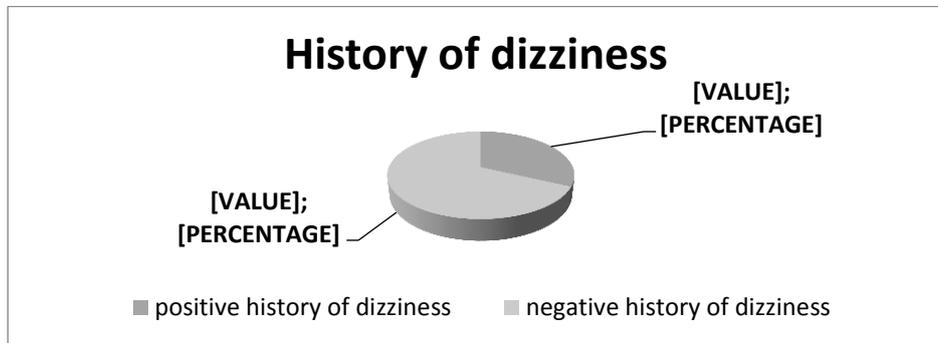


Figure (1): History of dizziness in study participants (n=450 subjects).

Table (1): Binomial test for association between office test and elderly subjects:

	Number	P value
spontaneous nystagmus	12	0.001
No spontaneous nystagmus	438	
Negative positional nystagmus	411	0.001
positive positional nystagmus	39	
Negative positioning nystagmus	403	0.001
positive positioning nystagmus	47	
normal Romberg test	436	0.001
abnormal Romberg test	14	

Discussion

The aims of the current work were to estimate prevalence of dizziness in elderly population. In our study we found that the persons with history of dizziness was 32% with no age or sex preference. Our results agree with previous A population-based study in the United States reported that 24% of people older than 72 years have dizziness (Tinetti, Williams, & Gill, 2000). Another population-based study in the United Kingdom reported that 30% of people older than 65 years have dizziness [(Colledge, Wilson, Macintyre, & Maclennan, 1994), (Salzman, 2010)].

Abnormal finding in office tests for spontaneous nystagmus in 12(11%) subjects, positive positional nystagmus 39(35%), positive positioning nystagmus 47(42%), abnormal Romberg test in 14(12%).

Other study showed the vestibular vertigo increased with age to 7.2% in 60-69-year-olds and 8.8% in individuals over age 80 and they found the frequency of balance dysfunction increased significantly with age, such that 85% of individuals age 80 and above had evidence of balance dysfunction by using the objective modified Romberg test (Agrawal et al., 2019)

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