Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 7, Issue, 10, pp.21515-21519, October, 2015

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

PREVALENCE OF MEDICAL DISORDERS IN 60 – 90 YEAR ELDERLY RESIDING IN MUMBAI

Dr. RekhaBattalwar, *SaneeshaSahni and MisbahDhunna

Department of Food and Nutrition, SVT College of Home Science (Autonomous), SNDT University, Juhu, Mumbai, Maharashtra, India

ARTICLE INFO

Article History:
Received 24th July, 2015
Received in revised form
15th August, 2015
Accepted 07th September, 2015
Published online 31st October, 2015

Key words:
Aging,
Medical disorders,
Dental problems,
Chronic diseases.

ABSTRACT

Objective: To assess the prevalence of medical disorders in 60-90 year old elderly from Mumbai city, India

Methodology: A cross sectional study was conducted in 99 (males 48) elderly with the mean age of 71.2±7.2 years. A pre-tested questionnaire was used to collect information regarding prevalence of medical disorders in elderly. Analyses were performed using SPSS software and P-value < 0.05 was considered to be statistically significant.

Results: A very high prevalence of dental problems (49.5%), vision problem (40.4%), bloating (36.4%), migraine (30.3%) and hypertension (29.3%) was seen in the study. Heartburn (26.3%), back pain (24.2%), hyperlipidemia (22.2%), swollen legs, (20.2%) muscle pain (18.2%), impaired memory (18.2%), chest pain (17.2%), claudication (16.2%), dizziness (16.2%), skin rashes (16.2%), abdominal pain (15.2%), numbness (14.1%) and nausea (9.1%) was also high. Diabetes was present in 11.1% elderly and 3% suffered from thyroid disorders. Female elderly had significantly higher prevalence of hyperlipidemia, loss of conscious, dizziness and impaired memory as compared to male elderly ($p<0.05$).

Conclusion: A high prevalence of dental and disorders are prevalent in elderly. Female elderly are at higher risk of developing mental health disorders and hyperlipidemia. Medical awareness camps should be conducted to detect and help elderly with medical disorders.

Citation: Dr. RekhaBattalwar, SaneeshaSahni and MisbahDhunna, 2015. "Prevalence of medical disorders in 60 – 90 year elderly residing in Mumbai", *International Journal of Current Research*, 7, (10), 21515-21519.

INTRODUCTION

Majority of the world's older people (61%) live in developing countries, a proportion that will increase to nearly 70% by 2025. The elderly population of India rose from 5.5% of the general population in 1950 to 6.5% in 1991 and 7.7% by 2001. In other words, one out of every seven elderly persons would be from India by 2001 (Reddy, 2004). In India, the elderly people suffer from dual medical problems, i.e., both communicable as well as non-communicable diseases. This is further compounded by impairment of special sensory functions like vision and hearing. A decline in immunity as well as age- related physiologic changes leads to an increased burden of communicable diseases in the elderly (Nath and Ingle, 2008). Similarly a rise in prevalence of chronic diseases, including heart disease, arthritis, and diabetes, was recorded in elderly people between the 1980s and 1990s in the USA,12 OECD countries, the Netherlands and Sweden. Increases in pain and psychological distress, general fatigue, dizziness, leg ulcers, heart problems, hypertension, and musculoskeletal pain,and worsening lung functionhave been reported for the elderly population in Sweden between 1991 and 2002 (Christensen *et al.,* 2009). Although the effects of risk factors on morbidity appear to be similar in different populations, the prevalence of common chronic diseases differs between countries. The distribution of lifestyle factors may influence morbidity in otherwise comparable countries (Frost *et al.,* 2011). Adequate hospital care for older people (≥65 years) with acute medical disorders requires a comprehensive assessment by multidisciplinary teams to detect early those patients at highest risk of functional decline and Institutionalization (Baztan, 2009). Elderly people are highly prone to mental morbidities due to ageing of the brain, problems associated with physical health, cerebral pathology, socio-economic factors such as breakdown of the family support systems, and decrease in economic independence. The mental disorders that are frequently encountered include dementia and mood disorders. Other disorders include neurotic and personality disorders, drug and alcohol abuse, delirium, and mental psychosis (Ingle *et al.,* 2008).

Corresponding author: SaneeshaSahni,
Department of Food and Nutrition, SVT college of Home Science (Autonomous), SNDT University, Juhu, Mumbai, Maharashtra, India.

MATERIALS AND METHODS

A cross sectional study was conducted in 99 (males 48) elderly with the mean age of 71.2±7.2 years. A pre-tested questionnaire was used to collect information regarding prevalence of medical disorders in elderly. Analyses were performed using SPSS software for Windows (version 16.0, 2007, SPSS Inc, Chicago, IL). Data are presented as frequency (percentage). The frequency distributions were tabulated for various parameters according to gender and were compared using cross tabulations and chi-square test P-value < 0.05 was considered to be statistically significant.

RESULTS DISCUSSION

A study was conducted in 99 elderly (males – 48, females – 51) with the mean age of 71.2± 7.2 years to access the risk for various medical disorders and medical risk. The mean age of males was 70.86.9 years and that of females was 71.5±7.5 years (p>0.05).

Table 1. Prevalence of Cardiovascular Disorders

	Total Prevalence (n = 99)	Prevalence in Males (n = 48)	Prevalence in Female (n = 51)	$\chi 2$ for comparison between males & females	P value for comparison between males & females
Chest pain or tightness	17 (17.2)	9 (18.8)	8 (15.7)	0.163	0.686
Palpitations (skipped beats)	10 (10.1)	5 (10.4)	5 (9.8)	0.010	0.919
Swollen legs or feet	20 (20.2)	10 (20.8)	10 (19.6)	0.023	0.879
Hypertension	29 (29.3)	11 (22.9)	18 (35.3)	1.829	0.176
Hyperlipidemia	22 (22.2)	5 (10.4)	17 (34)	7.824	0.005
Heart attack, angina	6 (6.1)	3 (6.2)	3 (5.9)	0.006	0.939
Heart murmur	6 (6.1)	5 (10.4)	1 (2.0)	3.1-5	0.078
Rheumatic fever	1 (1)	1 (2.1)	0 (0)	1.073	0.300
Claudication or leg pain on walking	16 (16.2)	10 (20.8)	6 (11.8)	1.501	0.221
Blood clots or “phlebitis”	10 (10.1)	4 (8.3)	6 (11.8)	0.321	0.571
Varicose veins	4 (4)	2 (4.2)	2 (3.9)	0.004	0.951

Data presented as frequency (percentage)

Table 2. Prevalence of Abdominal/Digestive Disorders

	Total Prevalence (n = 99)	Prevalence in Males (n = 48)	Prevalence in Female (n = 51)	$\chi 2$ for comparison between males & females	P value for comparison between males & females
Abdominal pain	15 (15.2)	6 (12.5)	9 (17.6)	0.510	0.475
Nausea or vomiting	9 (9.1)	4 (8.3)	5 (9.8)	0.065	0.799
Bloating, gas or indigestion	36 (36.4)	19 (39.6)	17 (33.3)	0.417	0.518
Heartburn	26 (26.3)	9 (18.8)	17 (33.3)	2.716	0.099
Ulcer	4 (4)	2 (4.2)	2 (3.9)	0.004	0.951
Difficulty swallowing	1 (1)	0 (0)	1 (2)	0.951	0.330
Jaundice	2 (2)	1 (2.1)	1 (2)	0.002	0.965
Liver disease	1 (1)	0 (0)	1 (2)	0.951	0.330
Gallbladder problems	0 (0)	0 (0)	0 (0)	---	---
Pancreatitis	1 (1)	1 (2.1)	0 (0)	1.073	0.300
Change in bowel habits	5 (5.1)	4 (8.3)	1 (2)	2.094	0.148
Black or bloody stools	4 (4)	3 (6.2)	1 (2.0)	1.173	0.279
Colon cancer or colon polyps	1 (1)	0 (0)	1 (2)	0.951	0.330
Hemorrhoids	0 (0)	0 (0)	0 (0)	---	---

Data presented as frequency (percentage)

The prevalence of various cardio-vascular disorders was assessed and is presented in Table 1. As seen in Table 1, all the cardiovascular disorders were prevalent in the study group with the prevalence of hypertension (29.3%), hyperlipidemia (22.2%), swollen legs (20.2%), chest pain (17.2%) and claudication (16.2%) being the highest. As seen in Table 1, there was a significantly higher prevalence of hyperlipidemia in females as compared to males (p<0.05). There was no significant difference in the prevalence of other cardiovascular disorders between males & females (p>0.05) (Table 1). Agingis associated with structural and functional changes of the vessel wall, which result in decreased vascular distensibility and elevated arterial stiffness. As a consequence of arterial stiffness, systolic blood pressure increases, causing a rise in left ventricular workload and subsequent hypertrophy, and diastolic blood pressure decreases, leading to an impaired coronary perfusion (Mattace-Raso, 2006).

Table 2 describes the prevalence of abdominal or digestive disorders. As seen in Table 2, the prevalence of bloating (36.4%) was the highest followed by heartburn (26.3%) and abdominal pain (15.2%) and nausea (9.1%). None of the elderly had gallbladder disorders or hemorrhoids. There was no significant difference in the prevalence of abdominal disorders between males and females (p>0.05) (Table 2). In most western countries the number of elderly people is constantly rising, which means that an increasing proportion of patients admitted for abdominal pain at the emergency department are elderly (Laurell and Hansson, 2006).

Table 3 describes the prevalence of ear, nose, throat, dental and respiratory disorders. A very high prevalence of dental problems (49.5%), vision problem (40.4%) and migraine (30.3%) was prevalent in the study group. As seen in Table 3, 42.4% wore glasses or lenses, 38.4% had undergone eye surgery, 28.3% snored and 12.1% suffered from glaucoma. There was no significant difference in the prevalence of any ear, nose, throat, dental or respiratory disorders between males and females (p>0.05) (Table 3).

Table 3. Prevalence of Ear, Nose, Throat, Dental & Respiratory Disorders

	Total Prevalence (n = 99)	Prevalence in Males (n = 48)	Prevalence in Female (n = 51)	$\chi 2$ for comparison between males & females	P value for comparison between males & females
Headache or migraine	30 (30.3)	16 (33.3)	14 (27.5)	0.405	0.524
Eye or vision problem	59.6 (40.4)	29 (60.4)	30 (58.8)	0.026	0.872
Wear eye glass or lenses	57.6 (42.4)	28 (58.3)	29 (56.9)	0.022	0.882
Have you undergone LASIK or other corrective eye surgery	4 (4)	3 (6.2)	1 (2.)	1.173	0.279
Have you had cataract or other surgeries before	38 (38.4)	20 (41.7)	18 (35.3)	0.425	0.515
Have you had glaucoma	12 (12.1)	4 (8.3)	8 (15.7)	1.255	0.263
Nose congestions or sinus trouble	9 (9.1)	4 (8.3)	6 (9.8)	0.065	0.799
Ear or hearing problem	10 (10.1)	3 (6.2)	7 (13.2)	1.522	0.217
Dental problem	49 (49.5)	25 (52.1)	24 (47.1)	0.250	0.617
Gingival (gum) problems or bleeding	5 (5.1)	1 (2.1)	4 (7.8)	1.711	0.191
Sore throat	1 (1)	1 (2.1)	0 (0)	1.073	0.300
Post nasal drips or secretions	3 (3)	1 (2.1)	2 (3.9)	0.284	0.594
Swollen lymph nodes	1 (1)	0 (0)	1 (2)	0.951	0.330
Cough	12 (12.1)	5 (10.4)	7 (13.7)	0.254	0.614
Wheezing or shortness or breath	10 (10.1)	3 (6.2)	7 (13.7)	1.522	0.217
Snore	28 (28.3)	14 (29.2)	14 (27.5)	0.036	0.850
Tuberculosis or pneumonia	1 (1)	0 (0)	1 (2)	0.951	0.330
Blood in sputum	0 (0)	0 (0)	0 (0)	--	--

Data presented as frequency (percentage)

Table 4. Prevalence of Musculoskeletal and Neurological Disorders

	Total Prevalence (n = 99)	Prevalence in Males (n = 48)	Prevalence in Female (n = 51)	$\chi 2$ for comparison between males & females	P value for comparison between males & females
Joint or muscle pains or stiffness that limit mobility	18 (18.2)	8 (16.7)	10 (19.6)	0.144	0.707
Joint swelling, redness or deformity	5 (5.1)	2 (4.2)	3 (5.9)	0.152	0.697
Back pain	24 (24.2)	13 (27.1)	11 (21.6)	0.409	0.522
Implanted plates, pins or screws	4 (4)	1 (2.1)	3 (5.9)	0.920	0.337
Osteoporosis	9 (9.1)	6 (12.5)	3 (5.9)	1.310	0.252
Fracture	8 (8.1)	2 (4.2)	6 (11.8)	1.922	0.166
Numbness or muscle weakness	14 (14.1)	7 (14.6)	7 (13.7)	0.015	0.903
Temporary loss of vision, speech or strength	3 (3)	0 (0)	3 (5.9)	2.912	0.088
Loss of conscious (black-out spells)	6 (6.1)	0 (0)	6 (11.8)	6.011	0.014
Dizziness	16 (16.2)	3 (6.2)	13 (25.5)	6.756	0.009
Impaired memory or confusion	18 (18.2)	5 (10.4)	13 (25.5)	3.777	0.050
A stroke	2 (2)	0 (0)	2 (3.9)	1.921	0.166
Panic attacks	1 (1)	0 (0)	1 (2)	0.951	0.330
Epilepsy or seizures	6 (6.1)	1 (2)	5 (9.8)	2.589	0.108

Data presented as frequency (percentage)

An Indian Council of Medical Research (ICMR) report on the chronic morbidity profile in the elderly states that hearing impairment is the most common morbidity followed by visual impairment (Shah, 1997).The incidence of tooth loss is low but with geographical variation between age groups, and there is a trend for decreasing incidence over the last decades. A great number of variables are associated with tooth loss, and there is no consensus whether dental disease related or socio-behavioral factors are the most important risk factors. Institutionalized elderly people have, in general, more compromised oral health, including fewer teeth, than those at the same age living freely (Müller *et al.,* 2007). Table 4 describes the prevalence of musculoskeletal and neurological disorders in elderly. As seen in table 4, prevalence of back pain (24.2%), muscle pain (18.2%) and numbness (14.1%) was high. Prevalence of dizziness (16.2%) and impaired memory (18.2%) was also high. As seen in Table 4, there was a significantly higher prevalence of loss of conscious, dizziness and impaired memory in females as compared to males ($p<0.05$).

There was no significant difference in the prevalence of other musculoskeletal and neurological disorders between males & females ($p>0.05$) (Table 4). Dementia, depression and anxiety disorders are the most common psychiatric disorders among older adults in long term care. Many psychiatric disorders appear to be more prevalent in Long-term care settings when compared to those observed in community-dwelling older adults. Policy-makers and clinicians should be aware of the common psychiatric disorders in long term care and further research into effective prevention and treatments are required for this growing population (Seitz and Purandare, 2010). There is little age-associated decline in some mental functions—such as verbal ability, some numerical abilities and general knowledge—but other mental capabilities decline from middle age onwards, or even earlier. The latter include aspects of memory, executive functions, processing speed and reasoning. All of these so-called 'fluid' mental abilities are important for carrying out everyday activities, living independently and leading a fulfilling life. When one fluid mental domain declines others tend to do so also (Deary *et al.,* 2009).

Table 5. Prevalence of Endocrine/ Grandular Disorders

	Total Prevalence (n = 99)	Prevalence in Males (n = 48)	Prevalence in Female (n = 51)	$\chi 2$ for comparison between males & females	P value for comparison between males & females
Feel hot or cold all time	6 (6.1)	4 (8.3)	2 (3.9)	0.845	0.358
Thyroid Problems or goiter	3 (3)	2 (4.2)	1 (2)	0.409	0.522
Diabetes	11 (11.1)	6 (12.5)	5 (9.8)	0.182	0.670
Excessive thirst	6 (6.1)	4 (8.3)	2 (3.9)	0.845	0.358
Undergoing Treatment with steroids	6 (6.1)	2 (4.2)	4 (7.8)	0.587	0.444

Data presented as frequency (percentage)

Table 6. Prevalence of Dermatological Disorders

	Total Prevalence (n = 99)	Prevalence in Males (n = 48)	Prevalence in Female (n = 51)	$\chi 2$ for comparison between males & females	P value for comparison between males & females
Skin trouble or rash	16 (16.2)	7 (14.6)	9 (17.6)	0.171	0.679
Flushing	5 (5.1)	4 (8.3)	1 (2)	2.094	0.148
Change in hair or nails	6 (6.1)	4 (8.3)	2 (3.9)	0.845	0.358

Data presented as frequency (percentage)

Table 5 describes the prevalence of endocrine or grandular disorders. As seen in table 2, the prevalence of endocrine disorders was highest for diabetes (11.1%) and 3% suffered from thyroid disorders. There was no significant difference in prevalence of endocrine disorders between males and females ($p>0.05$) (Table 5) Diabetes increases the risk of microvascular and macro vascular complications and premature death in the general population and results in a huge economic burden for society. Randomized clinical trials have shown that interventions involving diet and exercise reduce the risk of diabetes among people with prediabetes. Public health measures should be undertaken to mitigate the consequences of new cases of diabetes (Yang *et al.,* 2010). Table 6 describes prevalence of dermatological disorders. Sixteen percent of the elderly suffered from rashes. There was no significant difference in the prevalence of dermatological disorders between males and females ($p>0.05$) (Table 6). Prevalence of disorders of breasts was assessed in female elderly. One percentage of female elderly suffered from pain in breast and swollen lymph nodes and another 2% suffered lump in the breast.

Conclusion

The aging is an unavoidable stage of the life. The increase in the life expectancy and with the advancement of the heath care facilities the share of the ageing population is going to rise. The aging of the population has brought with it new and serious issues, and also health matter to be addressed at national and international level. The health care system must plan policies and actions for the weak and susceptible elderly population aiming to protect the self-respect of the elderly people. Especially in the developing countries like India proper management of health sector is still inadequate and old age population cohort will add to the burden. Thus an effective health perspective and its maintenance can ease the problem at individual level. The aging is an unavoidable stage of the life. The in- crease in the life expectancy and with the advancement of the heath care facilities the share of the ageing population is going to rise. The aging of the population has brought with it new and serious issues, and also health matter to be addressed at national and international level. The health care system must plan policies and actions for the weak and susceptible elderly population aiming to protect the self-respect of the elderly people. Especially in the developing countries like India proper management of health sector is still inadequate and old age population cohort will add to the burden. Thus an effective health perspective and its maintenance can ease the problem at individual level (Bhatt *et al.,* 2014). A high prevalence of dental and disorders are prevalent in elderly. Female elderly are at higher risk of developing mental health disorders and hyperlipidemia. Medical awareness camps should be conducted to detect and help elderly with medical disorders.

REFERENCES

Baztan, J. J., F. M. Suarez-Garcia, and J. Lopez-Arrieta, 2009. 'Effectiveness of acute geriatric units on functional decline, living at home, and case fatality among older patients admitted to hospital for acute medical disorders: meta-analysis', *BMJ*, vol. 338, no. Jan22 2, pp. b50–b50, Jan.

Bhatt, B. M., Vyas, S., Joshi, J. P. 2014. Ageing and Health: A Health Profile of Inmates of Old Age Home. *Natl J Community Med*; 5(1): 1-5.

Christensen, K., G. Doblhammer, and R. Rau, 2009. 'Ageing populations: the challenges ahead', The Lancet, vol. 374, no. 9696, pp. 1196–1208, Oct.

Deary, I. J., J. Corley, and A. J. Gow, 2009. 'Age-associated cognitive decline', *British Medical Bulletin*, vol. 92, no. 1, pp. 135–152, Sep.

Frost, M., K. Wraae, and C. Gudex, 2011. 'Chronic diseases in elderly men: underreporting and underdiagnosis', Age and Ageing, vol. 41, no. 2, pp. 177–183, Dec.

Ingle, Gopal, K., and Anita Nath. 2008. "Geriatric health in India: Concerns and solutions." Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine 33.4;214.

Laurell, H. and L. E. 2006. Hansson, 'Acute Abdominal Pain among Elderly Patients', Gerontology, vol. 52, no. 6, pp. 339–344.

Mattace-Raso, F. U. S. 2006. 'Arterial Stiffness and Risk of Coronary Heart Disease and Stroke: The Rotterdam Study', Circulation, vol. 113, no. 5, pp. 657–663, Feb.

Müller, F., M. Naharro, and G. E. Carlsson, 2007. 'What are the prevalence and incidence of tooth loss in the adult and elderly population in Europe?', *Clinical Oral Implants Research*, vol. 18, pp. 2–14, Jun.

Nath, A. and G. Ingle, 2008. 'Geriatric health in India: Concerns and solutions', *Indian Journal of Community Medicine*, vol. 33, no. 4, p. 214.

Reddy, Kanala Kodanda Rami, Battena Krishna Reddy, and Alahari Papa Rao. 2004. "Interaction among body composition, self-rated health and functional status of the elderly in an Indian population." *Asia Pacific Journal of Clinical Nutrition,* 13.1: 78-85.

Seitz, D. and N. Purandare, 2010. 'Prevalence of psychiatric disorders among older adults in long-term care homes: a systematic review', *International Psychogeriatrics*, vol. 22, no. 07, p. 1025, Nov.

Shah, B., Prabhakar, A. K. 1997. Chronic morbidity profile among elderly. *Indian J Med Res.,*106:26572.

Yang, W., J. Lu, G. Shan, and J. He, 2010. 'Prevalence of Diabetes among Men and Women in China', *New England Journal of Medicine*, vol. 362, no. 12, pp. 1090–1101, Mar.

****