



Common Health Challenges Faced by the Geriatric Population

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Abstract

Background: Geriatrics is the medical care of old age population and the diseases associated with them. Among the global population in 2019 which was around 7 billion, 7 million constitutes the geriatric population who are above 65 years or more. In this article, I have discussed about various health challenges and disorders was faced by Geriatric population.


Materials and Methods: This article is a describing study of various health challenges and disorders was faced by Geriatric population.

Results: I discussed about neurological disorder, bone problems, vision problems, dental problems, disability in this chronic condition and its co-morbidities, muscle weakness, skin, their mental health problems, and urinary incontinence at their old age.

Conclusion: Successful ageing, though not on the genetic status, it depends on many determinants such as social interactions of an individual, the level of physical activity they could perform, and finally their attitudes towards the ageing. Geriatricians should recommend and also draft a comprehensive plan for the elderly on leading a healthy lifestyle which should have begun years before their ageing starts.

Key Words: geriatric population, health challenges, diseases, comorbidities

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Introduction

Geriatrics is the medical care of old age population and the diseases associated with them. Among the global population in 2019 which was around 7 billion, 7 million constitutes the geriatric population who are above 65 years or more. Due to the advancements in the medical field and increase in the life expectancy, it is predicted that the geriatric population will be doubled in the year 2050 and the numbers will be up to 1.5 billion, in addition it is also estimated that the proportion of older to adult population will also increase from 1 in 11 people to 1 in 6 people. Since these populations have degenerative changes as their age increases, in the forthcoming years, there will be a steep increase in global disease burden, following which the awareness of diseases plays a vital role. [1] In this article, I have discussed about various health challenges and disorders was faced by Geriatric population.

Neurological disorder

Diseases affecting the central nervous system (CNS) consisting of the brain, the nerves and the spinal cord are termed as 'Neurological diseases'. They stand first in the developing disability and second in leading to fatal. The risk of being prone to such diseases increases with respect to aging. The causes for such diseases are linked with various genetic factors and environmental factors as well. The most prevalent ones are. (i). Alzheimer's disease (AD): being the most diagnosed disease among the senior citizens; is the result of lesions which includes

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extracellular β -amyloid peptide ($A\beta$) accumulations, neurofibrillary tangles composed of intra-neuronal abnormally phosphorylated Tau, and neuronal and synaptic losses. (ii). Parkinson's disease (PD): this neurodegenerative disorder which stands next to AD, is due to the ageing factor. PD constitutes around 1% of those above 60 and 5% of those who are above 85 years. (iii). Stroke: It is due to a neurological deficit linked to an acute focal injury of the CNS which is a result of vascular cause which in turn includes cerebral infarction, subarachnoid and intracerebral hemorrhage. (iv). Epilepsy: This brain disorder is considered chronic and is the result of frequent episodic epileptic seizures. [2]

Bone Problems

Bone problems are much more prone to the population who fall under older age groups, especially for the conditions which have an effect on the joints known as osteoarthritis, on the bones known as osteoporosis and the spine too. The hip and the knee osteoarthritis is most common around the world and also ranks in the 11th position as a contributing factor to the disability. In India alone, approximately 22% to 39% of the old age group populations are affected by osteoarthritis. After the age of 30, the bone mineral density tends to decline and diseases such as osteoarthritis will have a negative effect on the bone resistance when the mechanical energy is applied and in turn results in compression fractures. Study reveals that in India, around 80% of the people who are affected by osteoarthritis have limited mobility and 25% of them are not capable of day-to-day activities. [3]

Vision problems

Since biophysical aging is inevitable, so are the eye diseases such as Cataract, glaucoma, diabetic retinopathy, and macular degeneration. Though they are not age related, the vulnerability of being affected by these diseases is prevalent in older age group. Since various parts of the eye are affected by the complexity of these diseases, visual functioning deteriorates. The degree of vision decreases due to ageing and leading the older age groups to face difficulty in color sensitivity, distinguishing contrasts, and letter size as well. (i). Cataract: it develops a cloudy layer around the lens or capsule of the eye resulting in the vision being hazy in the glaring light in particular. (ii). Glaucoma: Here the fluid pressure inside the eye increases and thereby damaging the optic nerve which in turn have a negative effect on the peripheral vision. (iii). Diabetic retinopathy: here the disease affects the blood vessels located in the eye, the retina in particular; (iv). macular degeneration: the central visual acuity is affected as the disease have an effect on the macula of the retina. The last two diseases result in gradual visual loss and the images look blurred, distorted, and hazy. [4]

Dental problems

Even though retention of teeth for lifetime is achieved nowadays due to the advancement in the medical field, awareness of diseases which affect the oral health is needed as they are the major concern for the older age groups. Few oral health problems are: (i). Periodontal Disease: Around 60% of the older populations are affected by this, where the supporting structure of the tooth gets affected and results in gingival recession, alveolar bone resorption, tooth mobility and gradually to tooth loss. (ii). Dental Caries: Fluoride therapy is recommended for the prevention of it. Those who have low stimulated salivary flow rate and less resting pH are 60% prone to dental caries. (iii). Edentulism: it is the final outcome of

Dental caries and periodontitis; It is a state where there is an absence of natural teeth. It is reported that older adults with multiple edentulism are highly prone to dementia and those with more than 50% of teeth are less prone. (iv). Xerostomia: 33% of elderly age group has this condition where one can feel oral dryness due to decrease in the production of salivary output. (v). Oral Precancerous and Cancerous Lesions: Oral mucosa and oral epithelium deteriorates with respect to the age and allows toxic substances and becomes less resistant to diseases, therefore resulting in oral cancer. (vi). Tooth Wear: this constitutes 17% of the older age population, which can be the result of attrition, abrasion, and erosion or even sometimes combination of the above three. [1]

Disability

The major chronic illness which affects most of the geriatric patients above 65 years old are problems related with cardiac, Vision, cognitive impairment, arthritis, the foot and other prevalent ones are COPD, hearing impairment, cardiovascular disease and finally falls and hip fracture. The root causes for disability and frailty may be their lifestyle, their childhood, having no physical exercise, affected by any chronic disease and finally malnutrition. Another concern leading to disability is co morbidities especially those who are above 70 years as they have more chronic conditions.

Chronic condition	Co-morbidities
Stroke	Coordination problems, locomotor difficulties, lack of communication and incontinence
Coronary heart disease	heart failure, angina, myocardial infarction
Diabetes	poor mobility, diabetic neuropathy
Visual loss	risk of falling
Hearing and visual impairment	social isolation, depression
Falls	loss of function, osteoporosis, fractures

Rehabilitation, treatment of some conditions which are unstable and treatable, providing aids and equipment, Regular exercise, nutrition, and awareness can help in the prevention of disability or management of it. [5]

Muscle weakness

Changes happen in the muscles with respect to the ageing process. Musculoskeletal impairments in the adult population are the result of Sarcopenia (loss in muscle mass due to ageing). Once an individual attains the age of 50 years, a percentage decrease of 1 to 2 in the muscle mass and also a decrease of 12 to 15 per cent in the strength of muscles for every decade are noted. Low muscle mass is entirely related to weakness and which in turn leads to dysfunction and disability. A vital role is played by muscle fibers in the motor unit functions. These fibers are considerably smaller in the lower limbs for the elderly people when compared to younger adults, as a result the former find it difficult in balancing and postural control. Therefore, Doctors should always suggest the patient to have some

amount of regular exercise on day-to-day basis; they can recommend the daily exercise on the basis of what a patient is capable of instead of stressing themselves a lot. Muscles strength can be improved by walking, the speed of walking and also climbing in the staircase. [6]

Skin

The elderly people are prone to more skin diseases mainly due to the effects of polypharmacy as they will be consuming combinational therapies and also have a decrease in the functions of kidney and liver. The common skin diseases in the geriatric population are i. Pruritus – due to skin atrophy, ii. Seborrheic Keratoses – causes are the side effects of neurological and psychiatry medications, iii. Hair loss – the underlying causes are iron deficiency anemia, antilipidemic drugs and hypothyroidism, iv. Onychomycosis – are caused by vascular disorders, nail plate malformations and diabetes mellitus. and v. Eczema and dermatitis due to varicose veins of the lower extremities and discoid eczema in women due to manual labor. Skin deterioration related to ageing are thinning of the epidermis, decrease in the number of cell density, vessels, collagen and elastin. These changes in turn lead to the reduction of elasticity of the skin finally resulting in the relaxation of the skin. Therefore, for the improvement of the quality of life and towards the increase in expectancy of life for the geriatric patients, a Geriatrician plays a vital role. [7]

Mental Health

Mental disorders have a significant impact on the quality of life of the elderly. The few determinants of the mental health of the aged population are: marital status, sociocultural factors, chronic medical conditions, family support. In later life, individuals face many disorders such as: i. Depressive disorders: being in depressed mood and lack of interest in usual activities, ii. Neurocognitive disorders – decline in cognitive behaviors and abilities mandatory for day-to-day activities, iii. Anxiety disorders, individuals have increased anxiety and fear iv. Bipolar disorders: individuals can be of mania (sudden period of high energy, mood swings-bipolar I) or hypomania – (bipolar II), v. posttraumatic stress disorder: when an elderly either directly or indirectly faced a traumatic event, vi. Substance use disorders: when they are addicted to drugs or substances. [8]

Urinary incontinence

When an individual accidentally leaks urine, it is termed as ‘urinary incontinence or overactive bladder’. This is common in elderly people particularly women. This incontinence can be due to constipation, vaginal infection, or urinary tract infections. Medications can be used if the incontinence is for a short span whereas if it sustains for a longer time, the causes are of weak pelvic floor muscles, overactive bladder muscles and due to any damages to the related nerves. Particularly in men, it can be due to prostatitis. The various types of urinary incontinence are (i). stress incontinence: when pressure is applied on the bladder during cough, exercise, sneeze or lifting overload. (ii). Urge incontinence: condition where the elderly cannot hold the urine for a longer time before having access to a restroom. (iii). Overflow incontinence: a minimal amount of urine is expelled when the bladder is full (iv). Functional incontinence: Where there is a limitation in mobility (e.g. arthritis) when they have to move to the restroom. [9] Before aging starts the elderly people have to follow the instructions of the Geriatricians then they have to reduce their burden in their life. [10]

Conclusion

I have concluded that the successful ageing, though not on the genetic status, it depends on many determinants such as social interactions of an individual, the level of physical activity they could perform, and finally their attitudes towards the ageing. Geriatricians should recommend and draft a comprehensive plan for the elderly on leading a healthy lifestyle which should have begun years before their ageing starts.

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