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Review Article

GERIATRICS; TYPICAL PRESENTATION OF HEALTH PROBLEMS AND MANAGEMENT: A REVIEW

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ABSTRACT

Geriatrics or Geriatric medicine is a specialty that focuses on health care of elderly people. The cycle of nature ie. childhood, adolescence, adulthood and maturity phases are inevitable for each and every one on the earth. Though each stage has its own sets of responsibilities and problems, with the advancement of age gradually a complicated sets of problems arise. When compared to younger adults, older people have different patterns of disease presentation as some changes occur as a result of ageing. Older people may react differently to drugs due to their multiple health problems. Due to the physical changes of ageing process and multiple illnesses, the presentation of a particular health problem in older people is complicated. Increased morbidity and mortality are seen in many cases as a result of missed diagnosis or ignorance. Geriatric care management combines health care and psychological care. Other needed services including housing, nutritional services, assistance with activities of daily living are also included in Geriatric care management. Evaluation of an elderly person needs more time, patience and care than a standard medical evaluation. Early detection of problems is helpful in early intervention which results in the prevention of further deterioration. In this study an attempt is made starting from the effort to give a concept about the geriatric group of people, common health issues along with their atypical presentation, special approach to their problems including assessment parameters and finally ways for their solution in the form of management are reviewed in this article.

Key Words: Geriatrics, morbidity, assessment parameters, atypical

INTRODUCTION

Geriatrics or Geriatric medicine is a special branch which focuses on the health care of elderly people. The aim of geriatrics is the promotion of health by prevention and treatment of diseases in elderly person.¹

Older people are divided into three distinct age groups as given below-

The young old- 65-74 years

The old- 75-84 years

Very old- 85 years onwards.²

Chronic disease and environmental hazards also make people weak and disable, however getting old is a completely different process and it should be separated from any disease process or environmental insults.

PRESENTATION OF DISEASES IN OLDER PEOPLE

Recognition of disease process in older people is much more difficult than in younger ones. This is due to the reason that older people accept their ill health and therefore there will be always delay in seeking help. Another reason for delay in recognition of diseases is the atypical presentation of diseases in old age. Age related inevitable deterioration, though most of them are in treatable conditions, their ignorance in the course of time results in loss of independence.³

Presentation of normal ageing along with common pathological changes in old age are described in the following table

Table 1: Normal ageing along with common pathological changes

System	Normal ageing	Pathological changes common in older age
Cardiovascular	Slight increase in heart size and decrease in exertional oxygen consumption results in reduction in exercise tolerance.	Ischemic heart disease, Valvular heart disease and Peripheral vascular disease.
Respiratory	Vital capacity 10% reduction by age 10.	Haemoptysis, Chronic obstructive pulmonary disease(COPD)
Alimentary	Peristalsis is reduced and abnormal and slow peristalsis results in reduced absorption rate	Weight loss, Dysphagia, Change in bowel habit
Hepatobiliary	Reduced hepatic mass and metabolic reserve.	Jaundice, Deranged liver function tests
Renal	Reduction in GFR and numbers of functional tubules and glomeruli.	Renal impairment with raised serum creatinine, Haematuria
Genitourinary	Men- Reduced testosterone in men, Post-menopausal low oestradiol raised FSH and LH in women.	Erectile dysfunction, Prostatic enlargement, Post-menopausal bleeding, Urinary incontinence etc.
Nervous system	High frequency hearing loss, decline in close focusing, decline in Distinguishing fine lines, Loss of muscle mass.	Deafness, tinnitus and vertigo Glaucoma, Cataracts, Dementia, Delirium
Endocrine	Pituitary dysfunction, Thyroid dysfunction, Reduced response to stress.	Hyponataemia, Hypothyroidism, Impaired glucose tolerance

Musculoskeletal	Increased body fat and loss of muscle mass	Osteoarthritis, Osteoporosis
Dermatological	Loss of collagen in the skin	Basal and squamous cell carcinoma.
Haematological and immune system	Loss of T-cell function with age.	Anaemia, Haematological malignancies, Chronic lymphatic dysfunction

Atypical presentation

Geriatric giants signify a set of symptoms and sign that occur in old age. The range of presentation of diseases in old age are mostly studied under Geriatric giants.

The geriatric giants including major clinical symptoms in old age are- Immobility, instability/ falls, Incontinence, Intellectual impairment, Pressure sores and Impaired senses.

Multi-organ failure is common in the elderly patient which is mostly due to infections. Multiple comorbidities are also due to multiple pharmaceutical preparations used by the older people which result in increased disability in the older person most often.⁴

THEORIES OF AGEING⁵

Ageing is defined as a progressive generalized impairment of function resulting in the loss of adaptive responses to stress and increases the risk of age associated diseases.

Though no definite cause of ageing is still known, various theories are put forward as follows,

1. The span of all healthy tissue is predetermined,
2. During metabolic processes of life, the waste products which were formed due to deoxygenating are not eliminated and hence old age is supposed to be set in.
3. Some genes are controlling the old age. C phos genes control the old age by reducing the genes that are responsible for increasing the cells.
4. Cells like T and B lymphocytes as well as interleukin 2, responsible for immunity are reduced and enhanced old age.
5. After certain time the cells develop age - advanced glycosylation end product, hence responsible for old age due to loss of elasticity.

APPROACH TO RESENTING PROBLEMS IN OLD⁶

Due to similar underlying causes older patients suffer from many problems at the same time. The approach to most presenting problems in old age can be summarized as, by the Telephone test, the patient's usual status like mobility etc can be tried to evaluate from a relative or someone closed to him. Another approach may be by checking the medication used by the patients for different ailments, treatment is started for any acute illness as soon as it is diagnosed.

Immobility

Impaired mobility is one of the most common clinical presentation in the elderly.

A careful history taking is important this case to evaluate whether it is sudden immobility as a result of stroke or fracture or it is a steady deterioration over several years due a chronic process like osteoarthritis.

Falls/ Instability

Falls are very common in older people. Fractured neck of femur of this age group cause most of the cases of falls in the elderly.

Incontinence

Incontinence is an involuntary voiding or leakage of urine or faeces. Restricted mobility, some drugs, hyperglycemia UTI are some of the factors causing incontinence in old age.

Pressure ulcers

Pressure ulcers mostly develop over the sacrum, greater trochanters and heels. They are mostly developed by sustained pressure in cases of dehydrated, immobile, patients with incontinence, people of impaired senses and diabetic patients.

Confusion

Delirium and Dementia are two common confusion states affecting the older people. In delirium, along with confusion state, there is always a depressed level of consciousness. Hyponatraemia, uncontrolled diabetes may be the underlying causes of delirium. In Dementia there is loss of higher mental function like judgment, memory and language with a chronic confusion state.

Impaired senses

Sensation like Vision and Hearing are to be assessed along with their history of development.

Other problems in old age

There is a vast range of other possible presenting problems in older people. Some of these are –

Hypothermia- Problems of Thermoregulation are also common in old age. Thermoregulatory problems are most often due to the pathological changes atherosclerosis, hypothyroidism and medication. Older people react more slowly to changes in temperature.

Poor nutrition- Energy balance is deranged in old age as there is changes in body composition with decreased muscle mass and increased percentage of body fat and decrease in BMR with a decrease in energy requirements.

Hypertension in old age

Almost half of all people over the age of 60 years are affected by Hypertension.

MI, heart failure and stroke in older people are mostly caused by hypertension.

Diabetes Mellitus in old age

Approximately 10% of people over 65 years suffer from Diabetes Mellitus.

Weight loss and reduced appetite in old age nowadays are found to be associated with pancreatic carcinoma with the development of diabetes in the elderly.

Peptic ulcer in old age

High prevalence of *H. pylori* and NSAID use cause Gastroduodenal ulcers in old age.

As pain and dyspepsia are mostly absent, so older people develop complications such as bleeding or perforation more frequently and they need more intensive management than younger patients as tolerance of hypovolaemic shock is difficult in older people.

Anaemia in old age

Generally due to diseases, Mean Haemoglobin falls with age. Serum iron and transferrin also fall with age because of the prevalence of other disorders. As the prevalence of chronic atrophic gastritis rises in old age, vitamin B₁₂ deficiency also occurs.

COMPREHENSIVE GERIATRIC ASSESSMENT

Osteoarthritis in old age

OA causes pain and disability associated with reduced muscle strength, impaired balance and decreased proprioception in old age.

Obstructive pulmonary disease in old age

Asthma and airflow obstruction commonly occur in old age. An older patient’s description of symptoms is not a reliable indicator of severity because perception of bronchoconstriction is always less than young patients. So a mortality rate for acute asthma is higher in old age.

In case of History taking and examination for geriatric assessment, points to be noted are Functional capacity, Fall risk, Cognition, Mood, Polypharmacy, Social support and Financial concerns.

Activities of daily living (ADL)⁷

An enquiry about activities of daily living provides useful information in patients. For the patients with multiple disabilities, such questionnaire helps in the planning of treatment and future care.

Following table describes the activity of daily living. The Barthel ADL, Index should be used as a record of what a patient does, which is-

Table 2: Activity of daily living

Item	Categories
Bowels	0= Incontinent 1= Occasional accident (once per week) 2= Continent
Bladder	0= Incontinent 1= Occasional accident (Maximum once every 24 hours) 2= Continent
Grooming	0=needs help 1= Independent
Toilet use	0= Dependent 1= needs some help but can do something 2= Independent
Feeding	0= Unable 1= Needs help 2= Independent
Transfer	0= Unable- no sitting balance 1= Major help can sit 2= Minor help 3=Independent
Mobility	0= Immobile 1= Wheel chair independent 2= Walks with the help of one. 3= Independent (may use any aid)
Dressing	0= dependent 1= Needs help 2= Independent
Stairs	0= Unable 1= Needs help 2= Independent
Bathing	0= Dependent 1= Independent

MANAGEMENT OF GERIATRIC DISORDERS

Rehabilitation⁸

The aim of Rehabilitation is to improve the ability of people of old age so that they can perform their daily activities without any difficulties and to restore their physical, mental and social capabilities.

The Rehabilitation process can be discussed in the following steps:

Assessment

Identification of the patient’s problems is done with an assessment framework.

International classification of functioning and disability

Table 3: Factors and intervention

Factor	Intervention required
The underlying diseases, eg- Stroke, Osteoarthritis are evaluated under Health conditions.	Medical or surgical treatment is needed.
The symptoms or signs of Impairment are studied like visual impairment etc.	Medical or surgical treatment should be considered.
Activity limitation in cases of walking, dressing etc.	Rehabilitation, assistance, aids are needed.
Participation restriction	Adapted accommodation, social services.

Goal setting- The rehabilitation team specified some goal sets which are particular to the patients problems.

Intervention- This includes active treatments to fulfill the set goals and to maintain the patient's health and quality of life.

Reassessment- Regular follow up of the patient by the members of rehabilitation team is needed to monitor the progress toward the set goals.

The rehabilitation team

The rehabilitation team involves individuals from several professional disciplines including the physiotherapist, occupational therapist, speech and language therapist, dietician, social worker, nurse and doctor.

Rehabilitation interventions

The interventions used in rehabilitation can be divided into 'hard' and 'soft' interventions.

Hard interventions include Physiotherapy, Medication, Occupational therapy, Speech and language therapy.

Soft interventions include Counseling, Advice, Education, Listening, Encouragement etc. For reducing disability in elderly, rehabilitation has a great role as it improves functional abilities in older people.

CONCLUSION

Ayurveda, the ancient Indian system of medicine has clearly mentioned about the ageing, premature ageing and treatment of old age related ailments among the eight branches of Ayurveda. Jara or Rasayana is one of the most important branches of Ayurvedic science. Rasayana deals with the prevention of premature ageing along the management of old age related diseases. Older adults want to remain healthy and independent at home. The science of ageing indicates that the chronic disease and disabilities can be delayed or prevented. It is found in many studies that healthy eating, physical activity, mental stimulation, active social engagement, social support and regular health care are important in maintaining health and independence. As the

presenting complains in old age are very atypical in presentation, some ways of assessment including assessment criteria are given. Caring for older people with multiple health problems can be tricky, even for healthcare specialized in geriatrics. So such studies on older adults along with their health issues and the ways of their solution help in better geriatric care with better scope of future research.

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