PRIMARY CARE
MED437

Elderly Care : Concept and Principles

Objectives: (per the guideline)

1. Define the elderly population
2. Understand the aging process
3. Understand the giant geriatric syndromes
4. Explain the meaning of healthy aging
5. Discuss the health risks in aging population
6. Recognize the common causes of dementia
7. Discuss the common preventive measures for elderly people

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References

- Doctor's slides and notes

Important *Notes* *Extra* *Golden*

Editing file link

Who is old ?

no difference between word old and geriatric only differ in origin , geriatric is latine name

Elderly:

– 60 & + years of age (UN)
– 65 & + developed countries
– 50 & + African countries, birth certificates problem)

The typical "geriatric" patient :

•chronic disease
•multiple disease (comorbidity)
•multiple drugs (poly-pharmacy)
•social isolation and poverty
•decrease physiological function

LOSS OF RESERVE

Aging - definition

Aging is a physiological process is associated with complex changes in all organs.

The accumulation of biological changes over time leading to decreased biological functioning and impaired ability to adapt to stressors.

Who is the ?

Geriatrician

***Diagnose, treat & manage diseases & conditions**

***Special approach for aging patients**

- If there is lack of social support the geriatrician can help.
- Geriatrician role is to improve quality of life.
- Geriatric : medical term. Elderly : General term.

General principles of geriatric care

• Multifactorial disorders are best managed by multifactorial interventions
• Atypical presentations need to be considered
• Not abnormalities require evaluation and treatment
• Complex medication regimens, adherence, problems, and polypharmacy are common challenges

Principles of Geriatrics

1- **Aging is not a disease.**
occurs at different rates:
- Between individuals
- Within individuals in different organ systems

2- Geriatric conditions are chronic, multiple, multifactorial
3- Reversible conditions are underdiagnosed and undertreated
4- **Function and quality of life are important outcomes**

5- Social support and patient preferences are critical aspects
6- Geriatrics is multidisciplinary issues
7- Cognitive and affective disorders prevalent and undiagnosed at early stages
8- Iatrogenic disease common and often preventable
9- Care is provided in multiple settings (like psychological care in patient with depression, which is common in geriatrics)
10- Ethical and end of life issues guide practice

Normal Aging vs. Disease

IMPORTANT

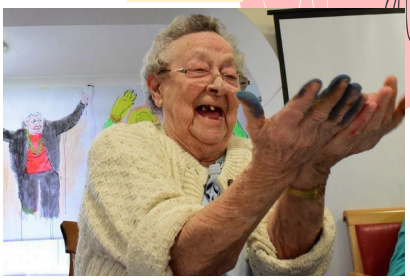
- Normal aging
  - "Crow's feet"
  - Presbycusis
  - Seborrheic keratoses; loss of skin elasticity
  - Benign forgetfulness
  - Decreased blood vessel compliance
  - Increase in % body fat
- Disease
  - Macular degeneration
  - Tympano-sclerosis
  - Basal cell CA
  - Dementia
  - Athero-sclerosis
  - Hypertension
  - Obesity

Common Geriatric Syndromes Important

Dementia vs Delirium
Fragility (loss of capacity)
Sarcopenia (loss of skeletal muscle mass)
Falls & Gait and mobility impairment
Polypharmacy
Urinary Incontinence
Depression

Frailty

Dementia



Mental problems

Polypharmcy and iatrogenic

Agitation and anxiety

Risk of falls

Executive function

Driving issues

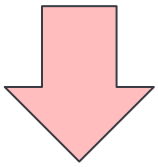
Loss of motivation

Decline in quality of life: Saudi Elderly study

Senani SA & Al-saif A, J. Phys. Ther. Sci. 27: 1691–1695, 2015

- chronic disease,
- falls, (more with DM (58%) & HTN (29%))
- sedentary lifestyle (69%;more in joint / bone pain (90%))
- low physical activity (63%)
- sleep disturbances,
- Sensory impairments-depression risk and
- decreased self-sufficiency.

Assessment of old patient!



Comprehensive geriatric assessment (CGA)

Structured Approach

Multidimensional

- Functional ability
- Physical health (pharmacy)
- Cognition
- Mental health
- Socio-environmental

Multidisciplinary

- Physician
- Social worker
- Nutritionist
- Physical therapist
- Occupational therapist
- Family

Comprehensive geriatric assessment (CGA)

- Co-ordinated multidisciplinary assessment
- Identify medical, functional, social & psychological problems
- The formation of a plan of care including appropriate rehabilitation
- The ability to directly implement treatment recommendations by the multidisciplinary team
- Long term follow up
- Targeting (age & frailty)

Frailty tiredness and loss of weight

•Frail people suffer from three or more of five of following symptoms;

– unintentional weight loss (10 lbs or + in last yr),
– muscle loss,
– a feeling of fatigue,
– slow walking speed and
– low levels of physical activity.

• vulnerable to significant functional decline

• Typically 75 years of age or older with multiple health conditions; acute and chronic; as well as functional disabilities.

Areas of Assessment

- **Functional assessment**
- **Mobility, gait and balance**
- **Sensory and Language impairments**
- **Continence**
- **Nutrition**
- **Cognitive/Behavior problems**
- **Depression**
- **Caregivers**

Example of Assessment areas!

Cognitive and affective disorders are prevalent and commonly undiagnosed at early stages: Delirium, multi-infarct dementia.

 # Geriatric depression is often undiagnosed

Iatrogenic illnesses are common and many are preventable:

Polypharmacy, adverse drug reactions. The use of five or more medications is considered polypharmacy.

Complications of hospitalization, falls, immobility, and deconditioning.

EOL care (END OF LIFE CARE)

 # Advance directives are critical for preventing some ethical dilemmas. مثل الوصية

 # Palliative care and end-of-life care are essential good QOL.

what is the difference between panadol night and extra and plus ?
- Night it has antihistamine, so be careful pt may fall due to drowsiness
- Extra has caffeine so give it in day time
- Plus has codeine whis is opioid like and will cause constipation

Supporting the Normal Changes

- Changes in Vision:
- Decreased peripheral vision
- Decreased night vision
- Decreased capacity to distinguish color
- Reduced lubrication resulting in dry, itchy eyes

- Changes in Hearing :

- Sensitivity to loud noises
- Difficulty locating sound
- More prone to wax build up that can affect hearing

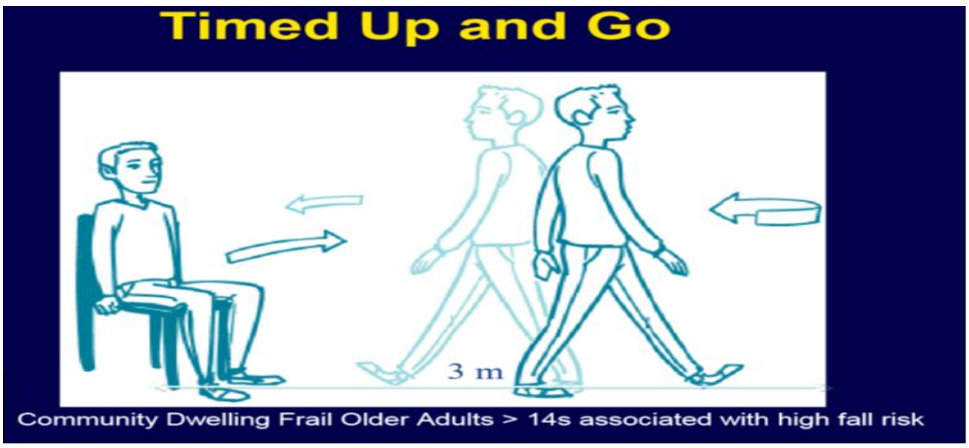
- Changes in Smell and Taste :

- Decreased taste buds and secretions
- Decreased sensitivity to smell

- Changes in Skin :

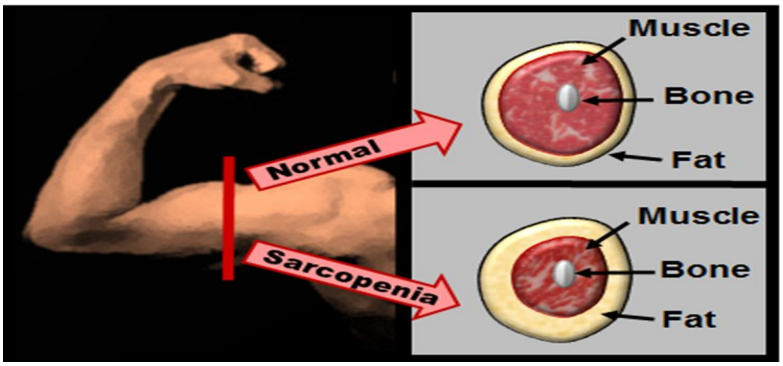
- Decrease in moisture and elasticity
- More fragile- tears easily
- Decrease in subcutaneous fat
- Decrease in sweat glands -less ability to adjust body temperature.
- Tactile sensation decreases- not as many nerves
- May bruise more easily

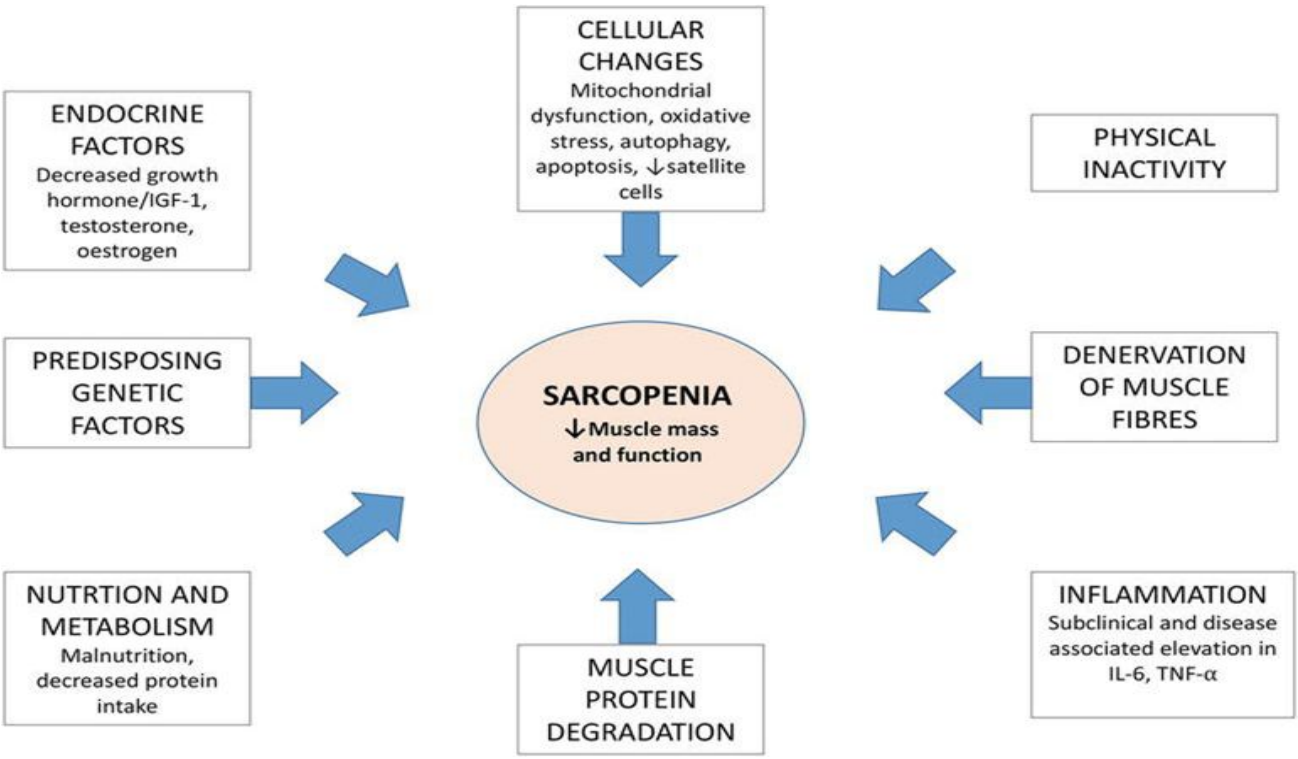
Physical Assessment



Patient is told to stand up and walk 3 meters and come back to the chair. If it took him more than 14 seconds he's at a higher risk for falling

Sarcopenia low muscle bulk





- Changes in Elimination :

• Bladder atrophy- inability to hold bladder for long periods
• Constipation can become a concern because of slower metabolism
• Men can develop prostate problems causing frequent need to urinate
• Incontinence may occur because of lack of sphincter control

- Changes in Bones and Joints :

• Decreased height due to bone changes
• Bones more brittle – risk of fracture
• Changes of absorption of calcium
• Pain from previous falls or broken bones
• Joints less lubricated – may develop arthritis

- Changes in Cognitive Ability :

• Don’t lose overall ability to learn new things but there are changes in the learning process
• Harder to memorize lists of names and words than for a younger person
• Sensory and motor changes as well as cognitive ability may affect ability to respond – hard to know which is which

Functional Ability

- Functional status **refers** to a person's ability to perform tasks that are required for living.

- Two key divisions of functional ability:
  - **Activities of daily living (ADL)**
  - **Instrumental activities of daily living (IADL).**

Functional Assessment

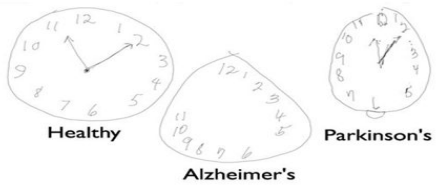
• **Activities of Daily Living (ADL):**
Feeding, dressing, ambulating, toileting, bathing, transfer, continence, grooming, communication

• **Instrumental ADL (IADL):** Cooking, cleaning, shopping, meal prep, telephone use, laundry, managing money, managing medications, ability to travel

Cognitive Assessment

There are many tools to assess the cognitive function of elderly :

- **MOCA** (Montreal Cognitive Assessment)
- **MMSE** (The Mini-Mental State Exam)
- **Clock** Drawing test



Physical Exercise

Reduces Fall risk by **47**%

Cognitive ability tests refers to a set of potentials and cognitive skills that individuals have, which enable them to interpret the relationships between objects and actions; and assess different situations.

Prevention of Fall very imp

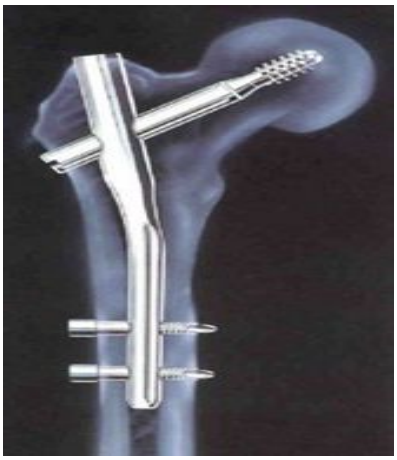
Fall leads to:

Ambulatory Adults >65 30% per year

Death
Injury
Fractures 10-15%
Hip 1-2%
Long Lie
Fear of Falling

Reduced Activity/Independence (25%)

Causes



Extrinsic

Environment

Intrinsic

Age: Gait/Balance Disorder, Sarcopenia, Vestibular, Orthostatic Hypotension, Special Senses –Vision/Hearing

Disease : Dementia, Depression, Drugs, Foot problems, Incontinence

Home Safety

It's important to ensure home safety by removing rugs,litters and having good lighting and bars in the bathroom

SUMMARY

Health Maintenance in the Elderly

- **Recommend primary and secondary disease prevention screening.**
- **Review all medications.**
- **Control all chronic medical problems.**
- **Optimize function**
- **Verify the presence of an adequate support system**
- **Discuss and document advanced directives**

- it’s Important to do primary and secondary prevention
- important vaccines: pneumococcal, influenza, hepatitis

Prevention and Promotion

- **Smoking in middle age is a risk factor**
- **Exercise**
- **Calcium & vit.D supplement**
- **Vaccines (influenza)**
- **Treatment of HTN & management of risk factors**

Questions

1 You are concerned that one of your 65-year-old patients is developing dementia. Which of the following, if present, would lead you to suspect dementia rather than delirium or depression?

a. Acute onset of symptoms
b. Difficulty with concentration c. Signs of psychomotor slowing
d. Good effort with testing, but wrong answers
e. Patient complaint of memory loss

2. You are seeing a 65-year-old woman with a history of diabetes and hypertension. She is overweight and does not exercise regularly. You are concerned that she may have renal failure, given her risk factors. Which of the following is the best test to detect the presence of renal insufficiency in this patient?

a. Her blood urea nitrogen (BUN) level
b. Her serum creatinine level c. Her BUN to creatinine ratio
d. Her calculated or estimated glomerular filtration rate (GFR)
e. Her urine microalbumin level

3. You are evaluating a 74-year-old woman for the recent onset of incontinence. She has diabetes, controlled by diet but with recently increasing sugars, and hypertension, controlled with a combination of lisinopril/hydrochlorothiazide. She has complained of constipation recently and has not had a bowel movement for 3 days. Microscopic analysis of her urine is positive for bacteria, but she does not report dysuria, urgency, or frequency. Which of the historical features mentioned is inconsequential in the workup of her incontinence?

a. Hyperglycemia
b. Diuretic use
c. Constipation
d. Bacteriuria
e. Postmenopausal state

Answers :
D
D
D