THE ELDERLY PATIENT  
- an introduction

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OVERVIEW

- Presentations of disease in the elderly
- Geriatric Giants
- Immobility (Functional Decline)
- Incontinence
- Instability
- Impaired Cognition
Medicine In The Elderly

- Medicine in the elderly has much in common with younger adults

YET

- Differs significantly in several ways
DISEASE PRESENTATIONS IN THE ELDERLY

- Typical
- Atypical
- Late
- Silent
Typical Presentation

- Classic symptoms and signs
- 88 year old with fever, cough and shortness of breath
- Diagnosis?
- Pneumonia
Atypical Presentation

- Mdm Tan CK, 88 yr old Chinese lady
- K/c Colon cancer – just completed chemotherapy
- Brought to your clinic by daughter and maid
- Generalised weakness X few days a/w loss of appetite and functional decline
- Found on the floor near her bed
- Unable to tell why she fell
On examination:

- BP 90/60 mm Hg, HR 110/min, RR 24/min, Temperature: 35.5 degrees Celsius, SpO2 94% on room air

- Lungs: Decreased air entry over right base with crackles

- Appears confused, disoriented to time, place and person
Diagnosis?
Atypical presentation

- By old age, multiple diseases frequently coexist
- Multiple complaints without a single major complaint
- Vague complaints
- The major complaint may not be due to the most serious identifiable disease
Atypical Presentation

As a result of

- Erosion of functional reserve in many systems and organs
- Impaired adaptive response to challenge
- Coincident pathology
- A disease in one organ may precipitate decompensation in another (e.g., congestive heart failure precipitating falls)
Atypical Presentation
LATE PRESENTATION

- Tendency for disease to present late in the advanced form

- Many factors contribute to this remediable problem:
  - Patient
  - Doctor
  - Communication
SILENT PRESENTATION

- Absence or attenuation of typical features of the disease
  - Eg: painless AMI and peritonitis, sepsis without fever

- Often related to
  - Patient: not informing or communicating
  - Doctor: not perceiving
“When I am silent, I have thunder hidden inside.”

~Rumi.
Geriatric Giants

- Immobility (Functional decline)
- Incontinence
- Instability (Falls)
- Intellectual Impairment
Geriatric Giants

- A Syndrome and NOT a Diagnosis
- Almost any disease can present as one of the giants
- Can have multiple causes
- Chronic course if not addressed
- Deprives elderly of independence
- No simple cure
FUNCTIONAL DECLINE

• 70 yr old Chinese male, Mr Tan AB
• K/c prostate cancer stage 4 on abiraterone
• Hypertension on hydrochlorothiazide, atenolol and nifedipine LA
• Active and able to play golf upto 1 month ago
• Increasingly lethargic; largely housebound X 1 month
• Unable to get out of bed X 1 week, needs assistance with feeding, wearing Diapers
• C/o lower limb weakness and giddiness, worse in the upright position
FUNCTIONAL DECLINE

• History is key
• Elicit duration over which decline occurred and rate of decline
• Are other Activities of Daily Living (ADLs) involved as well — feeding, dressing, continence?
• Often gives clues to underlying problem
On examination,

- Supine BP 140/65 mm Hg
- Standing BP 85/45 mm Hg
- Afebrile, HR 80/min, RR 16/min
- Heart, Lungs and abdomen unremarkable

Invx

- FBC: Hb 9.0 g/dL, TW and platelets: normal
- Renal Panel: Urea 7.2 mmol/L, Crea 100 umol/L
- Na 122 mmol/L, K 2.6 mmol/L
FUNCTIONAL DECLINE

- Possible causes for Mr Tan’s functional decline:
  - Hypokalemia - drug induced
  - Hyponatremia - drug induced
  - Anemia
  - Postural hypotension secondary to antihypertensives/ poor intake/ deconditioning
FUNCTIONAL DECLINE

- Decline over hours to few days
  - Infection
  - Stroke
  - Pain- joints, bones (eg fracture)
  - medication- related

- Decline over days to weeks
  - Electrolyte imbalance
  - Infection eg TB
  - Spondylosis- lumbar, cervical
  - Fear of fall

- Decline over months to years
  - Joint problems eg OA knees
  - Multiple strokes
  - Dementia
INCONTINENCE

- Urinary incontinence
  - Stress
  - Urge
  - Overflow

- Fecal incontinence

Most treatable causes of urinary incontinence can be determined by
- History, Physical examination, Urinalysis and post void residual urine
URINARY INCONTINENCE- Transient/ Reversible Causes

- Detectable by history
  - Drug side effects
  - Delirium
  - Excessive fluid intake
  - Impaired mobility

- Detectable by physical exam
  - Atrophic Vaginitis
  - Fecal Impaction
• Detectable by Urinalysis
  - Urinary Tract Infection
  - Glycosuria

• Detectable by bladder scan
  - High post void residual urine may imply overflow incontinence
URINARY INCONTINENCE

- 80 yr old Chinese male, Mr GSK
- On oral chemotherapy for lung cancer
- BPH on terazosin
- c/o constipation, urinary frequency and incontinence
- Saw OPS dr, prescribed laxatives and oxybutynin
- No improvement in symptoms so came to hospital
- On examination,
  - Abdomen: lower abdominal distension, suprapubic mass till umbilicus
  - DRE: hard stools, impacted
- Renal Panel: Urea 45 mmol/L; Cr 965 umol/L,
- Na: 143 mmol/L; K 5.8 mmol/L
- IDC inserted- drained 800 mls of urine
- US KUB : bilateral hydronephrosis; enlarged prostate
- Renal function gradually improved over days to baseline with IDC and gentle hydration.
- No dialysis required
Diagnosis?

- Urinary retention secondary to fecal impaction and BPH
- Worsened by oxybutinin
- Overflow Incontinence- presenting as urinary frequency and incontinence
INSTABILITY (FALLS)

- First fall or recurrent fall?
- If recurrent falls, any increase in frequency of falls recently?
- What led to the fall?
- Eye witness accounts
- Any LOC or seizures?
- Duration on the ground
- What injuries were sustained?
FALLS – Predisposing Factors

- Poor balance
- Postural hypotension
- Visual impairment
- Stroke disease
- Cervical/ lumbar radiculopathy or myelopathy
- Osteoarthritis of knees with quads wasting
- Urinary symptoms eg frequency, nocturia
- Environment and footwear
- Cognitive Impairment
INTELLECTUAL IMPAIRMENT

- What is the baseline cognition?
- Is there known dementia or depression?
- Is there any recent change in the cognition or mental state?
- If so, what is this change?
- When did the change occur?
Feature 1: Acute onset of mental status changes and a fluctuating course

Feature 2: Inattention

Feature 3: Disorganized thinking or Feature 4: Altered level of consciousness

- Why is delirium so important?
  - Higher death rates
  - Accelerated functional and cognitive decline
  - Longer hospital length of stay
  - Poor quality of life
  - Increased financial burden

Han et al Emerg Med Clin North Am 2010
ETIOLOGY

- Initial manifestation of acute illness

- Multifactorial

- Predisposing (vulnerability) vs precipitating factors

- Dementia probably most consistently observed independent vulnerability factor for delirium
Vulnerability vs Precipitating Factors

Inouye et al JAMA 2006
ETIOLOGY- PREDISPOSING FACTORS

- Advanced age
- Pre-existing cognitive impairment/ dementia
- Severe underlying illness
- Functional impairment
- Malnutrition
- Alcohol Abuse/ baseline use of psychoactive drugs
- Sensory Impairment
- Nursing Home residents
ETIOLOGY- THE COMMON PRECIPITANTS

- Infections- UTI, Pneumonia
- Dehydration and electrolyte abnormalities (low sodium, low glucose)
- Organ failure
- CNS insults, CCF, AMI
- DRUGS
- Pain
- Restraints, catheters
- Retention of urine, Fecal impaction
The Common Precipitants - DRUGS

- Anarex (orphenadrine)
- Tramadol
- Benzodiazepines – diazepam
- Antihistamines – diphenhydramine, promethazine
- Antispasmodics – diphenoxylate, hyoscine
- Oxybutinin
- Steroids
  
  - Beta-blockers, Methyldopa, metoclopramide, PPI, famotidine
In Summary

- The elderly are unique
- History from patient and caregivers (preferably live-in) is very useful
- Vital signs never lie
- Crucial information is gained from observation
- HOLISTIC APPROACH: Medical + function + social
THANK YOU FOR YOUR ATTENTION