Continence, falls and the frailty syndrome

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Outline

- Frailty
- Geriatric syndromes and giants
- Aetiology
- What can be done?
- The future
Frailty
Frailty

Frailty (noun):

The state of being weak in health or body
Frailty is “one of those complex terms ... with multiple and slippery meanings”

Frailty

• An accumulation of deficits with loss of reserve

• Due to cumulative effect of age, disease, disuse and loss of physiological reserve
Frailty
Frailty ≠ Age
Frailty

The midpoint between independence and death
Frailty

Older people defined as frail because of functional limitations are more likely to present with any geriatric syndrome.
Geriatric syndromes
Geriatric syndromes

Defined as:

‘multifactorial health conditions that occur [due to] accumulated impairments in multiple systems’

Geriatric syndromes

For a given geriatric syndrome, multiple risk factors and multiple organ systems are often involved.
Geriatric syndromes

Shared risk factors
- Older age
- Functional impairment
- Cognitive impairment
- Impaired mobility

Geriatric syndromes
- Incontinence
- Falls
- Pressure ulcers
- Delirium
- Functional decline

Frailty

Poor outcomes

Geriatric Giants
Geriatric Giants

- Falls
- Incontinence
- Impaired intellect

Falls
Falls

Fall:

“inadvertently coming to rest on the ground, floor or other lower level”

WHO Global Report on Falls Prevention in Older Age 2007
Falls are the commonest single reason for older people to present to urgent care in over 65 year olds in UK.
Falls

35% of adults > 65y
45% > 80y who live in the community

Between 10 - 25% of fallers will sustain a serious injury

Department of Health Falls and fractures; Effective interventions in health and social care 2009
Falls

Estimated to cost £4.6 million per day

Age UK June 2010
Intellectual impairment
Intellectual impairment

- Delirium
- Dementia
- Depression
Delirium:
An acute alteration in conscious level accompanied by a change in cognition

*Diagnostic and Statistical Manual of Mental Disorders. 4th ed.*
Delirium:

Usually a precipitant

e.g. infection
dehydration
medication
Delirium: Prevalence

Medical inpatients: ~20 - 30%
Surgical inpatients: ~10 - 50%
Dementia:

Disease of the brain... of a chronic or progressive nature.... [with] disturbance of multiple higher cortical functions

The ICD-10 Classification of Mental and Behavioural Disorders
World Health Organization, Geneva, 1992
Intellectual impairment

Dementia:
Prevalence

5% in 65y+
24% in 85y+

Alzheimer’s Disease International, April 1999
Depression: Depression is the most common mental health problem in old age
Depression:
Prevalence

43% ♀
40% ♂

> 85y

Intellectual impairment

2005 Health Survey for England
Depression:

Aetiological factors include:

• Social isolation
• Chronic physical illness
• Financial stress
Urinary incontinence
Urinary incontinence

Prevalence:

31% of women
23% of men

> 65y community dwelling

Shared aetiology
Shared aetiology

- Age
- Medication
- Infection
- Metabolic disturbance
- Alcohol misuse
- Neurological disease
Urinary incontinence related to:

- Falls
- Anxiety & depression
- Poor quality of life

Confusion
Age
Medication
Infection
Metabolic disturbance
Alcohol misuse
Neurological disease

Visual impairment

Constipation

Muscle weakness
Increased number of frailties present
→ more likely to be physically dependent
• Slow timed chair stands
• Decreased arm strength
• Decreased vision and hearing
• High anxiety or depression score

% with functional dependence

Anne Foley - BGS Bladders and Bowel Health 2012

- Lower limb impairment
- Upper limb impairment
- Sensory deficit
- Affective disorder

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Pathophysiology

Possible mechanisms underlying geriatric syndromes:

- Autonomic dysregulation
- Chronic inflammation
- Immune system decreased
- Hormonal / vitamin deficiencies
- Sarcopenia
- Atherosclerosis
What can be done?
What can be done?

“Knowing is not enough; we must apply. Willing is not enough; we must do”

Goethe
What can be done?

• Assessments
• Tools
• Prevention
What can be done?

Assessments:

• Physical examination
• Relevant investigations
• Medication
What can be done?

Assessments:

- Physiotherapy
- Environmental
- Nutrition
What can be done?

• Social history

• Corroborative history
What can be done?

Ask about falls, incontinence, confusion
What can be done?

Assessment tools:

- Fried Frailty Index\(^1\)
- Barthel scale
- Cognitive assessment tools
- etc

What can be done?

• Multiple risk factors and organ systems involved
• Identifying underlying causes may be difficult
• Therapeutic management may be helpful even in the absence of a firm diagnosis or clarification of the underlying causes
What can be done?

Prevention:

• Mobilization
• Exercise & balance training
• Reorientation
• Nutrition
Prevention:

Incidence of under nutrition at admission (UK):

- 23% <65y
- 32% 65y+

What can be done?

Start now!

- Exercise
- Diet
- Keep mentally active
The future
The future

Elderly population increasing

Office for national Statistics. Census results.
Technology

- Detect and monitor frailty in the community
- Support and enhance independence
Research

- Typical studies and trials have excluded frail elderly people
- Biology of ageing and frailty not well understood
The future

Treatments

- Medication
- Therapy
Guidelines

• NICE guidelines pending:

Delaying the onset of disability, frailty and dementia in later life
Public health initiatives

- Education
- Promotion of healthy lifestyles
Public health initiatives

Screening & treatment of:

- Hypertension
- Diabetes
- Heart disease
- Cerebrovascular disease
- Osteoporosis
- etc
The future

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Summary
Summary

- Frailty and geriatric syndromes
- Shared aetiology
- Interventions and prevention
- Plenty left to do.....
Thanks for your attention.

Questions?