GERIATRIC ASSESSMENT
NOW AND THEN

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Disclaimer

Please don’t tell my mother I am a political consultant in Washington D.C!
She believes I play the piano in a whorehouse in 14th Street
The questions then

- Is the patient going to die with cancer or of cancer?
- Will the patient live long enough to suffer the complications of cancer?
- Is the patient able to tolerate the treatment?
The questions now

- Is the patient going to die with cancer or of cancer?
- Will the patient live long enough to suffer the complications of cancer
- Is the patient able to tolerate the treatment?
- Is the patient frail?
- What are the patient’s values?
- What are the short and long term complications of the treatment?
- Who is the caregiver? Is he/she able to provide assistance to the patient?

What has changed since?

- The model of disease
- The goals of treatment
- The definition of frailty
- Comorbidity and cancer: a dynamic interaction
- New insights into aging
- New insights into the caregiver
What has changed since?

- The model of disease

THE OSLERAIN MODEL

DISEASE → TREATMENT → DEATH → CURE
MODIFICATION OF THE OSLERIAN MODEL

What has changed since?

- The goals of treatment
GOALS OF TREATMENT

- Increased survival
- Increased active life expectancy
- Symptom management
- Preservation of existential meaning

New symptoms

- Fatigue
- Cognitive Decline
- Functional impairments
- Existential suffering
Causes of fatigue

- Cytokines
- Hypogonadism
- Anemia
- Depression
- Deconditioning
- Sarcopenia

Impairment, disability, Handicap

Impairment = weakness

Disability = paraplegia

Handicap = lack of access to a wheel chair
Existential suffering

• An euphemism for desperation?

• Terminal sedation: an euphemism for euthanasia?

What has changed since?

• The definition of frailty
The definition of frailty

Frailty = end of life
• > 85
• Dependence in one or more ADLs and/or one or more geriatric syndromes
• Three or more comorbidities

Frailty = risk to lose independent living
• Loss of > 10 lbs in one year
• Decreased grip strength
• Decreased walk speed
• Decreased energy level
• Decreased ability to initiate a movement

New questions

• Do cancer and its treatment unmask frailty
• Do cancer and its treatment cause frailty?
What has changed since?

• Comorbidity and cancer: a dynamic interaction
• Is anemia a form of comorbidity, an expression of comorbidity or a geriatric syndrome?

Comorbidity

• Reduced survival
• Reduced tolerance of treatment
• Comorbidity and cancer growth
• Comorbidity and polypharmacy
Comorbidity and prognosis

Sopravvivenza del cancro del colon in persone con diabete e senza
Meyherhardt et al, JCO, 2004

Colon cancer and adiponectin SNP rs266729

Table 4. Combined Analysis Under Dominant Model

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Comorbidity, its treatment and cancer

• Epo and cancer of the head and neck
• Epo and breast cancer
• Insulin and stimulation of cancer growth (ILGFR)

What has changed since?

• New insights into aging
inflammation

Entropy

Fractality'

Disease susceptibility

Stress tolerance

Functional dependence

Geriatric syndromes

inflammation
Fractality

Human body fractals
• Circulatory apparatus
• Respiratory apparatus
• Nervous system
• Cellular renewals

Assessment of aging

Old ways
• Comprehensive Geriatric Assessment

New ways
• Levels of inflammatory markers
• Proliferative senescence of the stromal cells
• Genome of circulating lymphocytes
• Indirect measurement of entropy
CGA AND FOUR YEARS MORTALITY RATE

LEE ET AL, JAMA, 2006

FRAILTY INDEX AND CHRONOLOGIC AGE

What has changed since?

• New insights into the caregiver
Problems of the caregiver

- Diseases
- Family dissolution
- Cost

Social implications of aging

Increased prevalence of chronic diseases +
Increased prevalence of disability =
Increased $

Direct cost
Indirect cost medical related
Indirect cost non medical related
Intangible cost
Social implications of aging: response to increased cost

- Shifting of cost from entertainment to medical care
- Cut unnecessary cost (increased use of living will, elimination of “me too” drugs, elimination of unnecessary diagnostic tests, reduce regulatory burden, change the process of drugs approval)
- Rationing
- Discrimination

Ethic implications of aging

Kantian ethics:
- Rationing yes
- Discrimination no

Utilitarian ethics:
- Discrimination based on economic power
Not a solution

“The American economy is healthy and strong”  G.W. Bush