Cachexia, Anorexia and Fatigue

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Disclosures

- Dr. McKinnis discloses her employment as
  - Area Medical Director for VistaCare
- VistaCare has provided commercial support for this activity
- Palliative medicine frequently involves the use of medications for “off-label” purposes. Such use may be discussed during this presentation.

Objectives

- Discuss the Cachexia – Anorexia Syndrome with attention to:
  - Pathophysiology
  - Clinical Assessment
  - Nonpharmacological interventions
  - Pharmacological interventions
- Discuss fatigue at EOL, with attention to:
  - Pathophysiology
  - Assessment
  - Management

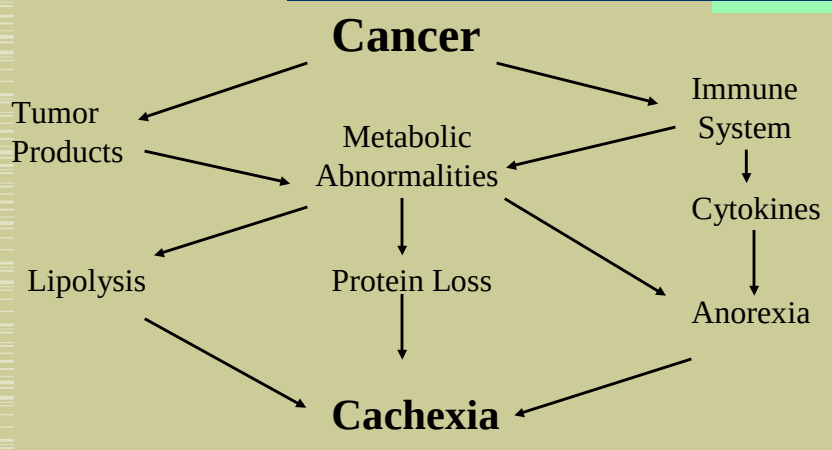
Cachexia - Anorexia Syndrome

- Prevalence of cancer-related cachexia ranges from 24% at time of diagnosis to 80% in terminal stages
- Characterized by progressive weight loss, lipolysis, loss of visceral and skeletal protein and profound anorexia.

Cachexia-Anorexia Syndrome

- Most common in cancer patients with lung and upper gastrointestinal cancers
- Observed in other diseases, including chronic obstructive pulmonary disease, advanced organ failure (heart, liver, kidney) and AIDS

Cancer Cachexia



Primary Cachexia-Anorexia

- Metabolic syndrome directly caused by cancer resulting in equal losses of fat and body-cell mass, particularly skeletal muscle
- Mediated by cytokines: Tumor necrosis factor - alpha, Interleukin - 1, Interleukin – 6, Interferon - gamma

Secondary Cachexia-Anorexia

- Three processes common in patients with advanced illness:
  - starvation/malnutrition related to impaired oral intake related to factors such as stomatitis, dysphagia, vomiting, autonomic failure, and altered GI tract function

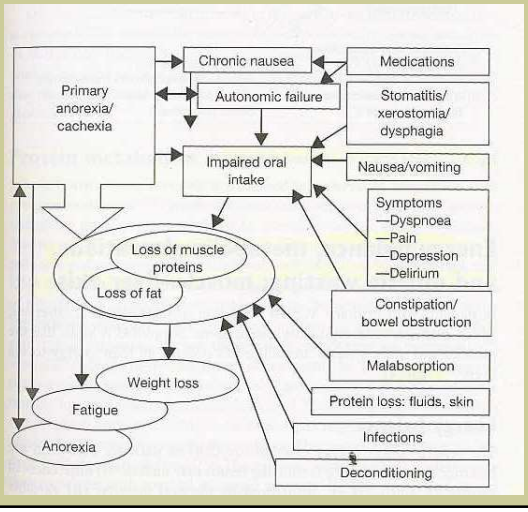
Secondary Cachexia-Anorexia

- Catabolic states unrelated to cancer, such as infections and heart failure, poorly controlled diabetes or renal or liver failure
- Loss of muscle mass related to aging, growth hormone deficiency or prolonged inactivity (eg. bedrest)

Potentially Correctable Causes of Cachexia-Anorexia

- Psychological factors
  - Anxiety, depression, family distress, spiritual distress
- Eating problems
  - Appetite, disturbed taste or smell
- Oral
  - Dentures, mouth sores, thrush, dry mouth
- Pain
- Metabolic
  - Diabetes, adrenal insufficiency, hypogonadism, thyroid insufficiency
- Swallowing difficulties
  - Esophageal involvement, candidiasis
- Stomach
  - Nausea and vomiting, early satiety
- Bowel
  - Obstruction, constipation
- Malabsorption
  - Pancreas, fistulas
- Fatigue
  - Inability to sleep, motivation

Pathophysiology of Anorexia/Cachexia Syndrome



Clinical Assessment in Anorexia and Cachexia

- Diagnosis made by history of substantial weight loss in the context of advanced disease and a physical examination demonstrating muscle wasting
- Individual's appetite and oral intake
- History & physical to identify reversible factors
- Attention should be given to:
  - diseases and hygiene of oral cavity, pain, effects of medications, depression and delirium, all of which can inhibit appetite.

Clinical Assessment in Anorexia and Cachexia

- Assess the emotional impact of anorexia/cachexia on the patient and family
- Assess their attitudes toward treatment goals and nutrition

Nonpharmacological Interventions in Cachexia - Anorexia

- Meticulous mouth care
- Dietary planning
  - No dietary restrictions
  - Small, frequent meals
- Education re: natural disease progression and its effect on appetite
- Comfortable eating environment
  - No family pressure to “eat more”

Nutritional Options

- Concentrated Protein/Caloric Supplements
  - Supplements often do not result in an increase in total energy intake – the patient may decrease their habitual intake with no net change in calories
- Enteral Nutrition
  - Will not reverse cachexia or slow disease progression
  - Risk of aspiration and diarrhea

Nutritional Options

- Parenteral Nutrition
  - 4X higher risk of infections in patients receiving parenteral nutrition
  - 81% survival compared to control patients not on parenteral nutrition
  - 15% experience serious morbidity

Pharmacological Interventions in Cachexia and Anorexia

- Prokinetic agents
- Corticosteroids
- Progestins
- Cannabinoids
- Miscellaneous agents

Prokinetic Agents

- Metoclopramide
  - Gastric emptying
  - Anti-emetic properties
  - Causes most responsive: autonomic failure and opioid use
  - Usual dosage: 10mg to 20mg AC & HS
  - Monitor for extrapyramidal effects

Corticosteroids

- Corticosteroids:
  - improved appetite
  - food intake
  - sense of well-being
- Effects lasting up to 4 weeks
- Weight gain not significant
- No actual effect on nutrition
- Prednisone – usual starting dose 2-5mg qd with average dose – 10 to 20mg 1-2x/day

Progestins: Megestrol acetate

- Megestrol acetate (Megace®) has shown to have beneficial effects in cancer and HIV
- Improves appetite, nutritional status and well-being
- No effect on survival
- Starting dose 80 – 160mg bid – qid after meals
- Concerns: high cost, edema, venous thrombosis, hypogonadism
- Medroxyprogesterone, another progestational agent

Other Pharmacological Interventions

- Cyproheptadine: antihistamine with appetite stimulant effects
  - Antihistamine side-effects: drowsiness, mental status changes, constipation
  - 2-4mg po tid
- Dronabinol (Marinol®): some benefit in cancer and HIV
  - Watch for dysphoria, hypotension, tachycardia, delirium
  - 2.5mg at hs increase weekly to max 20mg

Other Pharmacological Agents

- Eicosapentanoic Acid
- Thalidomide
- Melatonin
- Non-steroidal Anti-inflammatory Drugs
- Others

Fatigue

- Definition
- Pathophysiology
- Assessment
- Management

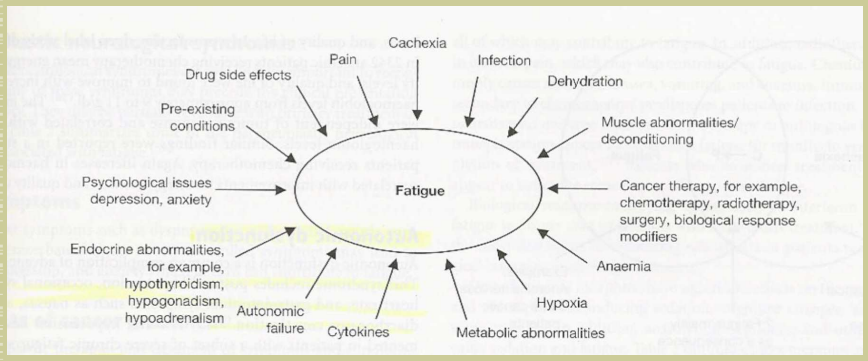
Definition

- Fatigue is the most common symptom in patients with advanced cancer. Prevalence ranges from 70 to 100% in patients receiving cancer treatment.
- Fatigue is major impediment to function and quality of life.
- Asthenia – reduced vitality, energy or vigor
- Fatigue - weariness or exhaustion resulting from physical or mental exertion

Fatigue

- Three major symptoms:
- Easy tiring and reduced capacity to maintain performance
- Generalized weakness
- Mental fatigue

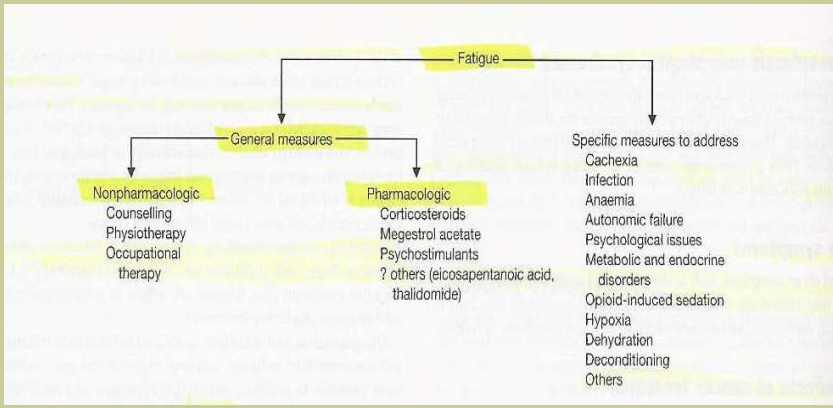
Pathophysiology



Assessment

- Functional capacity
- Performance status
- Task-related fatigue
- Subjective assessment tools

Management



Management

- Multiple causes
- May respond to treatments
- Non-drug therapies often work
  - Conserve energy and plan for rests
  - Ask for assistance and use devices
  - Encourage activity and restorative sleep
  - Plan for special occasions
- Consider a trial of steroids

Questions?