PROJECT ECHO:
Anorexia and Failure to Thrive

JABSOM Department of Geriatrics

Mrs. F

- CC: Anorexia and weight loss
- Mrs. F is a 72 F with hx of CHF, DM, COPD, Osteoporosis, AV node dysfunction, who is living at home with her husband.
- She was admitted in Oct 2016 for ischemic bowel and required a colectomy. Her hospital course was prolonged and complicated by PAF, renal failure (temporary HD), and poor PO intake.
- After she returned from her SNF stay, she has not had appetite and lost 7% of her weight over last 2 months.

Mrs. F

- Meds: Hydralazine, Isordil, Zoloft, Labetalol, Metformin, Phoslo, Amiodarone
- Social: No EtoH, no smoking.
- Her functional status:
  - Cognitively interactive, but noted to have dull affect
  - Able to stand, transfer and walk with walker about 25-100 feet with contact guard assist.

Physical Exam

- BP 100/76, HR 86, RR 20, afebrile
- Weight: 98 lbs, Height: 5’2, BMI 18.
- ENT: Temporal wasting, dry oral mucosa, ill-fitting dentures
- Chest, lungs: unremarkable.
- CVS: Irregularly irregular heart rate.
- Abdomen: Healing abdominal incision wound
- Ext: Low muscle bulk, trace edema.
- Skin: Multiple bruises.
- Neurologic: Nonfocal.

MMSE and Depression

- MMSE: 22/30
- Geriatric Depression Scale (GDS)
  - 4/15 (not depressed)

Workup

- B_{12} 1251, Folate 19.9, RPR non-reactive
- Albumin 2.5, Prealbumin 19.5
- TSH: 25.99
- CT head: mild diffuse atrophy, periventricular white matter ischemic changes present. No acute hemorrhage, infarct, neoplasm.

DEFINITION

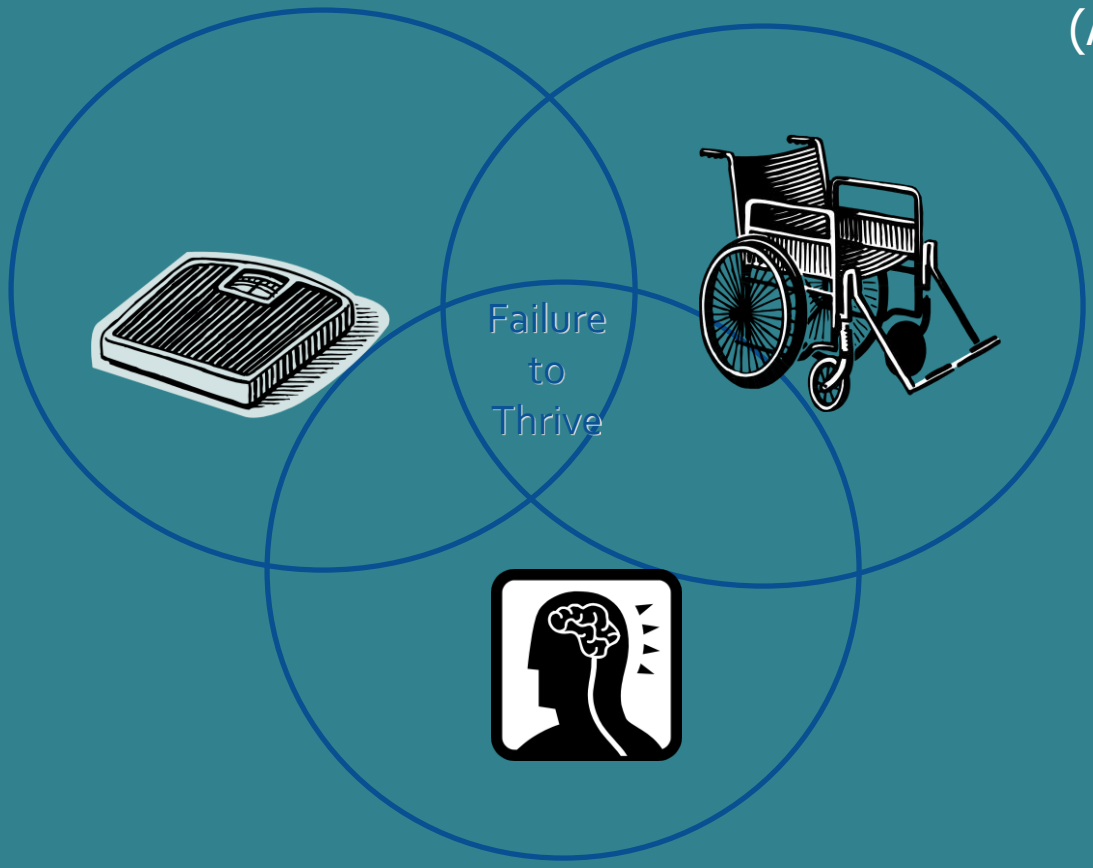
- Institute of Medicine (1991):
  - a syndrome manifested by weight loss greater than 5 percent of baseline, decreased appetite, poor nutrition, and inactivity
  - often accompanied by dehydration, depressive symptoms, impaired immune function, and low cholesterol levels.

A Clinical Syndrome

A State of Global Decline

FRAILTY
(wt loss, weakness, slow walking)

FUNCTIONAL DISABILITY
(ADL decline)



NEUROPSYCHIATRIC IMPAIRMENT
(dementia, depression or delirium)

PSYCHOSOCIAL

FRAILTY
(wt loss, weakness, slow walking

FUNCTIONAL DISABILITY
(ADL decline)

Failure
to
Thrive

MEDICATIONS

MEDICAL
CONDITIONS

NEUROPSYCHIATRIC IMPAIRMENT
(dementia, depression or delirium)

MEDICAL CONDITIONS

- Medical comorbidities
  - Malignancy
  - Chronic infections
  - Renal, liver failure
  - Chronic lung disease
  - Cardiomyopathy, heart failure
  - Dementia, Delirium

PSYCHOSOCIAL FACTORS

- Evaluate psychiatric health
  - Depression/ Anxiety
  - Isolation
  - Grief
- Evaluate socio-environmental factors
  - Financial
  - Support network
  - Abuse/Neglect

MEDICATION RELATED CAUSES OF UNINTENTIONAL WEIGHT LOSS AND FAILURE TO THRIVE

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INTRODUCTION

- Unintentional weight loss often signals serious pathology in the elderly.
- Medication side effects are major causes for weight loss among elders.
  - Anorexia
  - Xerostomia
  - Dysgeusia (alterations in taste) / Dysosmia (alterations in smell)
  - Dysphagia
  - Nausea / Vomiting / Diarrhea
- Consider Medication Review

POLYPHARMACY

- Elderly are often prescribed multiple medications by different health care providers increasing their risk for drug interactions and adverse drug effects.
- Clinician should review medication list at each visit.
- Best method is a brown bag biopsy – bring in all medications (prescription and over-the-counter.
- Always ask about herbal supplements

MEDICATION SIDE EFFECTS

- Medications should be carefully reviewed.
- If not absolutely essential – consider discontinuation with close monitoring
  - Or consider lowering the dose - especially if patient has renal dysfunction, hypoalbuminemia, or hepatic dysfunction
- Avoid medications that are considered inappropriate for use in older adults
  - Beers Criteria 2015

MEDICATION ADVERSE EFFECTS

Adverse Effect	Medications
Altered taste or smell	Allopurinol, ACE-I, antibiotics, anticholinergics, antihistamines, calcium channel blockers, levodopa, propranolol, selegiline (Eldypryl), spironolactone
Anorexia	Amantadine, antibiotics, anticonvulsants, antipsychotics, benzodiazepines, digoxin, levodopa, metformin, neuroleptics, opiates, SSRI, theophylline.
Dry Mouth	Anticholinergics, antihistamine, clonidine, loop diuretics
Dysphagia	Bisphosphonates, doxycycline, gold, iron, NSAID, potassium
GI disturbances	Amantadine, antibiotics, bisphosphonates, digoxin, dopamine agonists, metformin, SSRIs, statins, tricyclic antidepressants, opioids

APPETITE STIMULANTS - MEGESTROL

- Use of appetite stimulants in the elderly with failure to thrive is controversial.
- Megestrol – shown to yield weight gain in patients with anorexia and cachexia. Use in older patients with unintentional weight loss should be considered with caution due to limited evidence of benefit and significant adverse effect.
- Small RCT of megestrol 800 mg daily for 12 weeks improved appetite and well-being in nursing home residents. Weight gain was not significant. (1)
- Retrospective case controlled study of nursing home residents of those who got megesterol vs. those who did not. There was no difference in weight loss or median weight. Megace group had lower survival median. (2)

APPETITE STIMULANTS

- Adverse Effects:
  - Edema, worsening CHF, increased incidence of DVT
    - Study found an increased incidence of DVT in nursing home patients compared to those who did not (3)
  - Adrenal Insufficiency upon withdrawal (> 12 weeks of therapy)
    - Megestrol has glucocorticoid activity especially at doses > 300 mg daily however, exact mechanism unclear.
    - Present with fatigue and weakness
    - Check morning free cortisol at 12 weeks and biweekly there after
  - Tapering:
    - No standard regimen
    - Generally aim for 10 – 20 % dose reduction and monitor
      - Ex. 800 mg daily then decrease to ~ 600 mg week 1 then, 400 mg week 2, then 200 mg week 3 then 100 mg week 4
    - Or start prednisone 7.5 mg daily and taper at 2.5 mg / day every 2-3 weeks.

APPETITE STIMULANTS - DRONABINOL

- Dronabinol shown to improve appetite in patients with AIDS but has limited data in the elderly.
- Dronabinol has significant CNS side effects limiting its use in older adult
- Sedation, fatigue, hallucinations

REFERENCES

1. Yeh SS, Wu SY, Lee TP, et al. Improvement in quality-of-life measures and stimulation of weight gain after treatment with megestrol acetate oral suspension in geriatric cachexia: results of a double-blind, placebo-controlled study. J Am Geriatr Soc 2000; 48:485.
2. Bodenner D, Spencer T, Riggs AT, et al. A retrospective study of the association between megestrol acetate administration and mortality among nursing home residents with clinically significant weight loss. Am J Geriatr Pharmacother 2007; 5:137.
3. Kropsky B, Shi Y, Cherniack EP. Incidence of deep-venous thrombosis in nursing home residents using megestrol acetate. J Am Med Dir Assoc 2003; 4:255.

Non-Pharmacologic Intervention

- Minimize dietary restrictions.
- Optimize energy intake by:
  - maximizing intake of high energy foods at best meal of the day
  - eating smaller meals more often
  - eating favorite foods and snacks
  - providing finger foods
- Optimize and vary dietary texture

Non-Pharmacologic Interventions

- Avoid gas-producing foods
- Ensure adequate oral health
- Take high-energy and nutritionally dense supplements or add fats or oils to usual foods
- Take supplements between meals
- Eat in company or with assistance
- Use flavor enhancers
- Participate in regular exercise

Interventions in Our Case

- Discontinued Amiodarone.
- Started on Levothyroxine 50 mcg/day.
- Switched off Sertraline and replaced with Mirtazapine 15mg qhs.
- Dental consult done for appropriate dentures.
- Educate family regarding diet modification and strategies.

Conclusions

- FTT is a complex syndrome of Frailty, Disability & Neuropsychiatric Impairment
- Destabilized by: Medications, Comorbidities, and Psychosocial Factors
- Reversal of FTT requires attention to both underlying causes and exacerbating factors, as well as interventions for to address frailty, disability and neuropsychiatric impairment.

Conclusions

- Patients with FTT have increased rates of death.
  - Begin conversations about realistic expectations and Quality of Life
  - a steep uphill climb to recovery and prone to slip
- If there is minimal or no response to interventions, THEN consider medication management and THEN having “end-of-life” discussions with family and discuss goals of care, palliative care or hospice options.

COMMENTS?

QUESTIONS?

OTHER CASES?