Depression and Medical Illness

Andrew G. Resnik MD
Depression and Medical Illness

- Overview
  - Diagnosis/Differential
  - Morbidity/Mortality
  - Associated conditions
  - Associated medications
  - Psychopharmacology
Differential

- MDD, single/recurrent
- BAD, depressed
- Schizoaffective, depressed
- Adjustment Disorder
- Dysthymia
- PD
- Depression 2º GMC
- Depression 2º Substance (substance induced mood disorder)
Diagnosis

- MDD
  - Criteria For Depression DSM IV-TR
    - 2 week period with 5 or more of the following with 1 being either depressed mood or loss of interest/pleasure
      - Depressed mood most of the day/everyday (subjective or objective)
      - Diminished Interest/Pleasure –anhedonia
      - Weight loss or gain >5% in a month or change in appetite
      - Insomnia or hypersomnia nearly every day
      - Psychomotor retardation or agitation (objective)
      - Loss of energy nearly every day
      - Worthlessness or guilt nearly every day
      - Decreased concentration
      - Suicidality/passive deathwish
    - Symptoms cause clinically significant distress or impairment
    - Symptoms are not better accounted for by another psych. illness
    - Symptoms are not due to the direct physiological effects of a substance or GMC
Depression 2º GMC

- Underlying medical cause for depression
  - Atypical
  - Resistant to treatment
  - Personality change
  - Subtle cognitive findings
  - Negative mental health history

- A causal relationship can be postulated if the clinician demonstrates the presence of a medical condition known to cause depression, and if the symptoms improve as the medical condition is treated.
Depression 2º GMC

- Characteristics
  - Older age onset
  - Responds better to ECT
  - More likely to be improved at D/C
  - "organic" features in MSE
  - Much lower incidence of family history of depression or alcoholism 19% vs 35%
  - Less likely to have SI or SA
In one study of patients with CAD, Depression was the best predictor of MI, angioplasty, and death in the 12 months after cardiac cath.

Other studies show increased runs of VT, and depression as independent risk factor in 6 and 18 month follow ups.

Possible mechanisms include exaggerated platelet reactivity and alterations in heart rate variability.
Morbidity/Mortality

- Post stroke pts with depression 3.4 times more likely to die during 10 year period.
- MI/SAH/PE/UpperGI Bleed - 47% vs 10% had further life threatening complications or died.
- Increased risk of death in home dialysis patients
- Higher mortality rates in cancer patients
Morbidity/Mortality

- Theories
  - Alterations in immunological functioning
    - Reduced lymphocyte response to mitogen stimulation
    - Decreased killer cell activity
    - Diminished neutrophil activity
  - Reducing patient’s compliance with medical regimens
  - Increased Length of hospital stay
Associated Conditions

- Medical conditions etiologically related to depression
  - Neurological
    - CVA
    - Parkinson’s Dz
    - MS
    - Epilepsy
    - Huntington’s
    - Dementia
  - Endocrine
    - Hypo/hyper – thyroidism
    - Cushing’s syndrome
    - Addison’s disease
    - Hyperparathyroidism
  - Cancer
Associated Substances

- Medications and substances associated with depression
  - Antihypertensive meds
    - Reserpine, Methyldopa, β blockers (predisposed)
  - Contraceptives (older) (norplant)
  - Corticosteroids
  - Benzodiazepines
  - Histamine-2 receptor antagonists
    - Cimetidine, Ranitidine
  - Chemotherapy agents
    - Vincristine, vinblastine, procarbazine, L-Asparaginase, Amphotericin B, Interferon
  - Psychoactive substances
    - Alcohol, opiates, amphetamine or cocaine w/d, anabolic steroids
Treatment

- When depression accompanies a medical illness, each disorder complicates the course of the other
  - Depression due to medical disorder or substance
    - Persistent
    - More cognitive deficits
    - More physical illness
  - Depression concurrent with medical illness
    - Higher morbidity and mortality in CAD, MI, CVA, Renal Failure, Cancer
Treatment

- **Tricyclics and Trazodone**
  - More effective than SSRI’s in melancholic depression
  - All have significant anticholinergic activity (except trazodone)
    - Dry mouth, blurred vision, constipation
    - Urinary retention, ileus, delirium
    - Elderly Patients more susceptible
  - Orthostatic hypotension (block α1-adrenergic receptors)
    - Falls, changes begin at low dose, nortriptyline less likely
  - Sedation- good or bad? Hangover? (histamine-1 receptor)
  - Appetite stimulation (histamine-1 receptor)
  - Slows conduction - overdose danger – post MI/card. illness
Treatment

- SSRI’s
  - Overall well tolerated
  - Most common complaints are GI, nervousness, sexual dysfunction, insomnia
  - Celexa less GI
  - Cytochrome P450 inhibition
    - Metabolizes antiarrhythmics, antidepressants, neuroleptics, codeine, oxycodone, hydroxycodone
    - These drugs can accumulate to toxic levels
    - Pain meds requiring biotransformation can be less effective
  - Prozac, Paxil, Zoloft, Celexa, Lexapro
Treatment

- **Other antidepressants**
  - Wellbutrin – related to amphetamine-noradrenergic, weak dopaminergic
    - Seizure concerns above 450mg/day, or predisposed (TBI?)
    - Low cardiac effects
      - Rare orthostasis
      - No effect on LVF
      - No conduction issues
      - No pulse rate issues
    - Modest increase in BP
  - Low incidence sexual dysfunction
  - Side effects include stimulation, insomnia, tremor, perceptual abnormalities
  - So who is this good for?
  - Augmentation?
Other Antidepressants

- Effexor-serotonin, norepinephrine, mild dopamine reuptake inhibitor
- No significant effects on postsynaptic cholinergic, histaminic, α-adrenergic receptors
- Common side effects include nervousness, nausea, sweating, anorexia, dry mouth, dizziness (1/3 nausea)
- Dose related increase diastolic BP (19% patients >200mg)
- Only 30% protein bound (safer for warfarin, digoxin)
- Good for who?
  - Tx resistance, low energy…
Treatment

- Other Antidepressants
  - Remeron – noradrenergic and serotonin specific
  - Blocks 5-HT2, and 5-HT3 receptors
    - Reduces serotonin related agitation
    - Reduces nausea
    - Reduces sexual dysfunction
- Side effects
  - Increased appetite
  - Weight gain
  - Sedation
  - Fluid retention
  - Agranulocytosis?
Treatment

- MAOI’s
  - Atypical depression
  - I don’t use them
    - Oldest of the antidepressants
    - Activating
    - Tyramine hypertension
    - Interaction with other meds / serotonin syndrome
Treatment

- Psychostimulants
  - Not well supported in the literature for primary depression
  - 2º mood disorder in medical settings, safe and effective
  - Well tolerated in medically ill and elderly
  - Insomnia/anorexia side effects, mild cardiovascular
  - Rapid remission 1-3 days allows patients to participate in rehab much sooner
  - Use stimulant to jump start therapy while conventional agent is taking effect.
Treatment

- TRD- treatment resistant depression
  - Maximize efficacy of current med (before taking it off the list – revisit)
  - Change agents
  - Augmentation lithium, wellbutrin, thyroid
  - A lack of response to one agent does not equate a lack of response to all members of that class (SSRI)
  - Maximize, change class, augment . . . or.....
Treatment

- ECT
  - 83% response rate
  - 1st line in psychotic depression, malnourished-starving self, chronic suicidal, catatonia, severe mania, problematic exposure to Rx - pregnancy
  - Stigma is biggest road block.
Dear God,

please make it stop.