Depression in the Elderly: Diagnostics

Background

1. Definition
   o Abnormal emotional state marked by
     ▪ Altered mood that may occur daily
     ▪ Diminished interest or pleasure in most or all activities
   o Symptoms can include
     ▪ Poor appetite, weight loss or gain
     ▪ Insomnia or hypersomnia
     ▪ Feelings of hopelessness or worthlessness, guilt
     ▪ Difficulty concentrating and thinking
     ▪ Recurrent thoughts of death or suicide
   o See DSM-IV criteria

2. General information
   o Common, treatable, and potentially fatal
   o Distinct from early-onset depression
   o Less personality dysfunction and presence of depressed mood
   o More somatic complaints
   o Cognitive symptoms may be more prominent
   o Pts. usually have medical co-morbidity
   o Treatment
     ▪ Usually effective for community dwellers, inpatients, and nursing-home residents
     ▪ Effective/safe in presence of co-morbid illness and dementia
     ▪ Improves outcome measures for pain, overall health, and quality of life

Pathophysiology

1. Pathology
   o Mechanism may be similar to depression in younger age groups
     ▪ Neurotransmitters (serotonin, norepinephrine, dopamine) may be involved
   o Vascular disease may predispose or precipitate depression

2. Incidence/prevalence
   o 17-37% of elderly primary care pts. have depression
   o 15-20% of medically ill pts. have major depression
   o 14% of medically ill pts. have minor depression
   o Subsyndromal depression has prevalence of 13-27% in elderly
   o 37-56% of nursing home dwellers have major, minor, or subsyndromal depression
   o Nursing home settings
     ▪ Cognitively intact residents 10-20%
     ▪ Cognitively impaired 50-70%

3. Risk factors
History of depression
○ Chronic medical illness
○ Female
○ Single or divorced status
○ Social isolation
○ Lower socioeconomic status
○ Uncontrolled pain
○ Insomnia
○ Functional impairment
○ Cognitive impairment

4. Morbidity/mortality
○ Higher rates of disability and hospitalization
○ Increased caregiver burden
○ Lower rates of medication compliance
○ Decreased functional status and quality of life
○ One-year mortality is 8-15%
○ Death occurs by co-morbid illness or suicide
  ▪ Insufficient evidence to recommend for / against routine screening by primary care clinicians to detect suicide risk in general population

Diagnostics

1. History
○ Elderly are more likely to demonstrate anhedonia than middle-age adults
○ Elderly less likely to be depressed than middle-age adults
○ Ask about vegetative signs
  ▪ Sleep
  ▪ Concentration
  ▪ Energy level
  ▪ Appetite/weight loss
○ Screen for cognitive impairment (Mini-mental status exam)
○ Memory status
○ Assess suicide risk
  ▪ Directly ask about the frequency and content of suicidal ideation
  ▪ Evaluate the patient's access to means of committing suicide

2. Physical exam
○ Appearance (may appear unkempt or flat)
○ Speech (may speak slowly)
○ Thought process and content (may be slower with poor concentration)
○ Cognitive evaluation with mental status exam

3. Diagnostic testing
○ Laboratory
  ▪ TSH, B12, chemistry, CBC, UA
    ▪ To rule out common metabolic causes
○ Geriatric depression scale

4. Diagnostic criteria
o DSM-IV criteria for major depression
  ▪ Must have at least 5 of 9 symptoms during the same 2-wk period
    ▪ Depressed mood
    ▪ Sleep disturbance
    ▪ Lack of interest or pleasure in activities
    ▪ Guilt and feelings of worthlessness
    ▪ Lack of energy
    ▪ Loss of concentration and difficulty making decisions
    ▪ Anorexia or weight loss
    ▪ Psychomotor agitation or retardation
    ▪ Suicidal ideation
  ▪ One must be a cardinal symptom (depressed mood or anhedonia)
  ▪ Must involve impairment of functioning

o Geriatric depression scale
  ▪ Score ≥ 5 (S/S: 88/93)

o Dysthymia (minor depression)
  ▪ Chronic disturbance of mood of at least 2 years duration, involving either depressed mood or loss of interest or pleasure in all or almost all usual activities

o Subsyndromal depression
  ▪ Depressive symptoms that affect well-being and quality of life but do not meet criteria for major depression or dysthymia

**Differential Diagnosis**

1. Key DDx
   o Medical illness
   o Medications
     ▪ Pain medications
       ▪ Codeine, propoxyphene
     ▪ Antihypertensives
       ▪ Clonidine, reserpine
     ▪ Hormones
       ▪ Estrogen, progesterone, cortisol, prednisone, anabolic steroids
     ▪ Cardiac medications
       ▪ Digitalis, propranolol
     ▪ Anticancer agents
       ▪ Cycloserine, tamoxifen, vinblastine, vincristine
     ▪ Parkinson's disease agents
       ▪ Levodopa, bromocriptine
     ▪ Arthritis medications
       ▪ Indomethacin
     ▪ Tranquilizers/anti-anxiety drugs
       ▪ Diazepam, triazolam
   o Bipolar disorder
   o Substance abuse (alcohol)
2. Extensive DDx
   - Hypothyroidism
   - Infections
   - Congestive heart failure
   - Myocardial infarction
   - Dementia
   - Anemia
   - Vitamin deficiencies

Acute Therapy

1. Assess risk of suicide
   - Hopelessness
   - General medical illnesses
   - Family history of substance abuse
   - Depression
   - Personal history of substance abuse
   - Male gender
   - Caucasian
   - Psychotic symptoms
   - Living alone
   - Prior suicide attempts
2. If necessary, hospitalize
   - Psychosis is present
   - Suicidal ideation with a specific plan, severe hopelessness, or significant substance abuse
   - Outpatient medication trial is unsafe because of other medical problems

Pharmacotherapy

1. Start low, go slow
2. Both antidepressants and counseling similarly beneficial for mild-to-moderate depression
   2. Selective serotonin reuptake inhibitors (SSRIs)
      - Considered first line because of safety and side-effect profile
      - Effective for symptom relief of depression combined with anxiety
      - Potential interactions with
        - Monoamine oxidase inhibitors (MAOIs)
        - Tricyclic antidepressants (TCAs)
        - Neuroleptics
        - Antiarrhythmics
        - Antihistamines
      - Potential side effects
        - GI distress
        - Sexual dysfunction
- Weight gain
- Headache

Starting and maintenance dosages for SSRIs

- **Sertraline** 25 mg qD (usual dose: 50-100 mg)
- **Paroxetine** 5 mg qD (usual dose: 20-50 mg)
- **Citalopram** 10-20 mg qD (usual dose: 20-60 mg)
- **Fluoxetine** 5 mg qD (usual dose: 20-80 mg)
- **Fluvoxamine** 25 mg qHS (usual dose: 50-300 mg)

- If pt unresponsive to SSRIs
  - Optimize dose/duration of therapy before switching
  - At least 8 weeks of treatment before SSRI is deemed inadequate
  - Only 23% of patients who have not responded to 8 weeks of fluoxetine respond to a still longer course of fluoxetine

- When initiating antidepressant tx for patients who have not been treated for depression previously, sertraline and escitalopram have shown to be superior to other "new-generation" antidepressants

- **STAR*D trial**
  - Randomized study
  - Assigned patients who did not benefit from citalopram to 1 of 3 other drugs
  - Sustained-release bupropion
  - Sertraline
  - Extended-release venlafaxine
  - 1 in 4 patients achieved remission after switching to antidepressant from another drug class
  - Further switches in antidepressant monotherapy had low success rate (10-20%)
  - Mixed evidence supports combining different antidepressants
    - There is cohort study combining citalopram and bupropion
      - More effective than switching to alternate antidepressant
      - Other cohort studies did not find significant difference between switching and augmenting
  - An arm of the STAR*D trial added either sustained-release bupropion or buspirone to the failed citalopram therapy
    - 30% of patients with depression unresponsive to citalopram had remission when bupropion-SR or buspirone was added
    - STAR*D reports do not compare the 2 strategies of switching or combining drugs directly

4. Serotonin Norepinephrine Reuptake Inhibitors (SNRIs)

- **Desvenlafaxine** 50 mg qD (max dose 400 mg/day)
  - Adverse drug reactions shown for 50 mg/d dose
    - Higher than placebo
    - >10% include diarrhea, dizziness

- **Duloxetine** 40-60 mg/d PO qD/BID; NMT 60 mg/d
  - Adverse drug reactions >10% include
    - Constipation (11%)
- Dry mouth (15%)
- Insomnia (11%)
- Abnormal orgasm (3%)
- Anorexia (8%)

  - **Venlafaxine** 25-50 mg BID (usual dose 75-375 mg)
    - Consider in treatment-resistant depression
    - **Side effects**
      - Anxiety
      - Sexual dysfunction
      - Increased blood pressure
      - Mild sedation

5. TCAs
   - Equally effective as SSRIs
   - Potential interactions with antiarrhythmics, MAOIs
   - Potential side effects
     - Anticholinergic effects
     - Sedation
     - Orthostatic hypotension
     - Weight gain
     - Cardiac effects
     - Lower seizure thresholds
   - Measurement of blood levels is recommended to monitor therapy
   - Obtain a baseline electrocardiogram
   - Preferred TCAs (ie, lower anticholinergic profile)
     - **Desipramine**: 10-25 mg qHS (usual dose: 25-300 mg)
     - **Nortriptyline**: 10-25 mg qHS (usual dose: 25-250 mg)

6. Atypical SSRIs
   - First line
     - **Bupropion**: 50 mg BID (usual dose: 100-450 mg)
       - May be as effective as SSRIs and TCAs
       - Potential interactions with MAOIs
       - Side effects include lower seizure threshold
   - Second line
     - **Mirtazapine**: 15 mg qHS (usual dose: 15-45 mg)
       - Side effects: sedation, increased appetite, constipation, asthenia

7. MAOIs
   - Infrequently used
   - Side effects: hypertension, hypotension
   - Food-drug interactions

8. Other agents
   - **Lithium**
     - Can produce clinical improvement when added to ineffective antidepressant tx
   - **Triiodothyronine (T3)**
     - Supplementation at ≤50 mcg/day increases effectiveness of antidepressant tx
9. Avoid sedatives/hypnotics such as benzodiazepines
   - Lack of efficacy in treating depression
   - Risks/side effects: abuse potential, increased falls

Psychotherapy

1. As effective in geriatric population as in middle-age adults
2. Both antidepressants and counseling are similarly beneficial for mild- moderate depression
3. Older adults have better treatment compliance
4. Psychotherapy addresses issues that are unlikely to be affected by medications
   - Grief
   - Transitions
   - Family conflicts

Electroconvulsive Therapy (ECT)

1. Indications
   - For severe drug-resistant depression
   - Associated psychotic features that are resistant to pharmacotherapy
   - Severe catatonia
2. Contraindications
   - Recent myocardial infarction
   - Brain tumor
   - Cerebral aneurysm
   - Uncontrolled congestive heart failure
3. Effectiveness
   - Evidence of short-term efficacy
   - High relapse rate over 6-12 mo
4. Adverse effects
   - Post-ECT transient confusion
   - Risk of cardiovascular events
   - Mortality rate: 0.01%

Follow-Up

1. Return to office
   - Follow up at 1-2 wk intervals until stable
   - Adjust dose every 2-6 wk as needed
   - Continue treatment for 6-12 mo
   - Monitor closely for relapse
2. Refer to specialist
   - Refer to geropsychiatry if treatment is ineffective
3. Admit to hospital
   - Concerns for pt. safety (suicide risk)
   - Severe depression
Severe drug-resistant depression
Associated psychotic features that are resistant to pharmacotherapy
Severe catatonia

Prognosis

1. 54-84% of elderly respond completely to treatment
2. 12-24% of pts. relapse with recurrence rates >40% at 2 years
3. Treatment
   - Effective for community dwellers, inpatients, and nursing-home residents
   - Effective and safe in the presence of co-morbid illness and dementia
   - Improves outcome measures in pain, overall health, and quality of life
4. One-year mortality rate is 8-15%
   - Death occurs by co-morbid illness or suicide

Prevention

1. Effective prevention is difficult
2. Helpful measures
   - Social interaction such as support groups that deal with losses and changes
   - Staying in contact with family, friends, and neighbors
   - Participating in absorbing activities
   - Volunteering to help others
   - Learning a new skill, such as computer technology, cooking, or gardening
   - Sharing humorous stories
   - Maintaining a healthy diet
   - Exercise
3. Screening
   - Screening for depression recommended
     - Only when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow up
   - USPSTF recommends against routinely screening adults for depression when staff-assisted depression care supports are not in place
     - There may be considerations that support screening for depression in an individual patient
   - USPSTF concludes that evidence is insufficient to recommend for or against routine screening by primary care clinicians to detect suicide risk in the general population

Patient Education


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