Depression in the Elderly: Diagnostics

Background

1. Definition
    - Abnormal emotional state marked by
        - Altered mood that may occur daily
        - Diminished interest or pleasure in most or all activities
    - 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
    - See DSM-IV criteria
2. General information
    - Common, treatable, and potentially fatal
    - Distinct from early-onset depression
    - Less personality dysfunction and presence of depressed mood
    - More somatic complaints
    - Cognitive symptoms may be more prominent
    - Pts. usually have medical co-morbidity
    - 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
    - Mechanism may be similar to depression in younger age groups
        - Neurotransmitters (serotonin, norepinephrine, dopamine) may be involved
    - Vascular disease may predispose or precipitate depression
2. Incidence/prevalence
    - 17-37% of elderly primary care pts. have depression
    - 15-20% of medically ill pts. have major depression
    - 14% of medically ill pts. have minor depression
    - Subsyndromal depression has prevalence of 13-27% in elderly
    - 37-56% of nursing home dwellers have major, minor, or subsyndromal depression
    - Nursing home settings
        - Cognitively intact residents 10-20%
        - Cognitively impaired 50-70% [2]
3. Risk factors [3]

    - 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

- 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
- Geriatric depression scale
  - Score ≥ 5 (S/S: 88/93)
- **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
- **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
   - Medical illness
   - 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
   - Bipolar disorder
   - Substance abuse (alcohol)

    - Grief reaction
2. Extensive DDx
    - Hypothyroidism
    - Infections
    - Congestive heart failure
    - Myocardial infarction
    - Dementia
    - Anemia
    - Vitamin deficiencies

Acute Therapy

1. Assess risk of suicide [4-8]
    - 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]
3. Selective serotonin reuptake inhibitors (SSRIs) [9]
    - Considered first line because of safety and side-effect profile
    - Effective for symptom relief of depression combined with anxiety [4]
    - 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 [3]
        - 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 $\leq$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 [2]
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 [3]
    - 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 [11]
    - 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 [7]
        - 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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