Depression in the Elderly

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Mabel's Case

A widowed woman, 84-years-of-age, presented to her doctor with complaints of constipation and hemorrhoids. She was very thin, did not smile, and seemed preoccupied with aches and pains. When asked about her apparent weight loss, she complained that, because her teeth hurt, she was eating less.

On examination there were no mouth sores or visible dental caries. She had a small external hemorrhoid with minor inflammation. Laboratory tests were normal. She had a BMI of 20. Her Geriatric Depression Scale score was 12/15. When diagnosed with depression, she refused to take an antidepressant.

She was hospitalized a month later, after causing a house fire by forgetting to turn the toaster oven off.

In the hospital, she reluctantly agreed to try mirtazapine. After eight weeks and titration to 45 mg p.o., q.h.s., she noted better sleep and less physical discomfort. An antipsychotic medication, risperidone, 0.25 mg titrated to 0.5 mg was added to treat her psychotic somatic symptoms focused on her teeth (which had no abnormality on dental examination).

Late-life depression is common and frequently under-diagnosed. In a community sample of adults > 65-years-of-age, 6 to 9% suffer major depression, and mild depressive symptoms affect an additional 17 to 37% (Table1).[1]

Diagnosis of depression in the elderly can be missed because of atypical presentation, multiple comorbidities with overlapping symptoms, reluctance to disclose depressive symptoms, and lack of adequate screening.

Risk Factors for Geriatric Depression

Risk factors for geriatric depression include:

- *Biological*
  - Medical illness, including cerebrovascular disease, hypothyroidism, autoimmune diseases, connective tissue disorders, and infections[3]
- Psychological
  - Death and deteriorating health of friends, loved ones and other supportive people
  - Stress associated with the significant changes in status that occur with retirement, restricted mobility or the need for care
- Social
  - Widowhood or divorce
  - Low socioeconomic level
  - Poor social support
  - Adverse and unexpected life events[4]

Assessment for Geriatric Depression

The diagnosis of depression in elderly patients requires a careful history and physical examination[5] (Table 2 and Table 3) with special attention to the following areas:

- Level of functioning/disability
- Loss/grief
- Cognitive examination
- Environmental situation

Common Comorbidities

Psychosis

Comorbid psychosis is common in elderly persons. Hospitalized elderly patients with depression experience psychotic symptoms in 20 to 45% of cases, while patients who are community-dwelling experience psychosis in 3.6% of cases. Psychotic symptoms include delusions with common themes of persecution, guilt, nihilism, and somatic complaints.[6]

Suicide

Older adults have high rates of suicide and use more lethal means of self-harm. Caucasian men ≥ 85-years-old have a disturbingly high rate of 50 suicides per 100,000 in that age group. In a group of 543 seniors who completed suicide in Ontario in 1996, 80% had no psychiatric referral, and 87% had not been treated for depression.[8] A 2004 study found that seniors who died by suicide were almost twice as likely to have visited a physician in the week before death, as living control subjects (Table 4).[9]

Substance Abuse

Substance abuse may directly or indirectly affect the prevalence and severity of depressive disorders. Substances most frequently abused by elderly persons include nicotine, sedative-hypnotics and alcohol.[6] Brief screening and counselling during a doctor's examination of elderly patients with at-risk drinking patterns has shown to be an effective intervention.

Table 1

Symptoms of Depression

A major depressive episode is defined in the DSM IV TR* as ≥ 2 weeks of low mood or anhedonia plus four of the following:

S: Change in **S**leep pattern
I: Lack of **I**nterest in usual activities
G: Feelings of excessive **G**uilt or regret
E: Lack of **E**nergy
C: Loss of **C**oncentration
A: Change in **A**ppetite
P: Lack of **P**leasure in enjoyable activities
S: **S**uicidal ideation

* Adapted from American Psychiatric Association. American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders (4th ed. text revision), Washington, DC: 2000.[2]

Table 2

Testing for Initial Evaluation of Depression Diagnosis

Laboratory procedures/tests should include:

- Complete blood count
- Electrolytes
- Blood urea nitrogen and creatinine
- Plasma glucose
- TSH
- B12 and folate
- Liver function tests

Consider adding the following as indicated:

- Calcium, magnesium
- ECG
- Urinalysis
- Medication levels such as lithium, anticonvulsant, digoxin, tricyclic antidepressant
- Head CT or MRI if focal neurological abnormality
- Chest x-ray

Medical Disorders

The most common neurologic disorders associated with depression are Alzheimer's disease, Parkinson's disease, and cerebrovascular disorders. Depression rates range from 17 to 31% in persons with Alzheimer's disease; rates are approximately 50% in patients with Parkinson's disease and about 25% in stroke patients. The co-occurrence of depression with neurologic disease results in substantially increased morbidity, especially in the form of cognitive impairment.

Depression in chronically ill patients can lead to a worsening of subjective physical symptoms and perception of disability. Physical symptoms such as weight loss, fatigue and poor appetite, loss of interest, or difficulty with concentration, can be a result of both depression and chronic illness creating a diagnostic dilemma. Depression can amplify the subjective experience of discomfort and clinicians should interpret somatization out of proportion to underlying physical disorders as strongly suggestive of depression.[3]

Compared with nondepressed patients, the odds are three times greater that depressed medical patients will be noncompliant with prescribed medications, exercise, diet, health related behaviour, vaccination, and appointments.[3] Thus, treatment of depression can improve functioning irrespective of change in the medical condition causing disability.

Treatment Recommendations

Patients' attitudes and beliefs are significantly related to treatment engagement. Similarly, physicians' attitudes affect the presentation and action regarding screening results. Systematic screening alone does not change outcomes for patients.[3]

A respectful, supportive doctor-patient relationship allows for exploration of attitudes toward depression and limits obstacles to diagnosis and

Table 3

Suggested Evaluation Tools for Screening Mood and Cognition in the Office Setting

The following tools can be used in the office to assist in the assessment:

Geriatric Depression Scale (GDS):
http://www.stanford.edu/~yesavage/Testing.htm

Hamilton Rating Scale for Depression (Ham-D):
http://fpinfo.medicine.uiowa.edu/Docs/hamd.pdf

Mini-Cognitive Assessment (Mini-Cog):
http://geriatrics.uthscsa.edu/educational/med_students/minicog_admin.htm

CAGE Screen for Alcohol Abuse:
http://chipts.ucla.edu/assessment/Assessment_Instruments/Assessment_files_new/assess_cage.htm

Table 4

Risk Assessment for Suicide in the Elderly: Most Important Risk Factors for Suicide[5,7]

- Intention to die
- Cogent plan
- Lethal means
- Psychosis
- Recent loss or bereavement
- Alcohol abuse
- Abuse of sedatives/hypnotics/pain relievers
- Severe anxiety/agitation
- Development of disability

Questions to ask:

? Prior attempts
? Family history
? Impulse control
? Extreme despair
? Extreme hopelessness
? Extreme pessimism
? Support system

If suicide seems to be imminent:

- Do not leave alone
- Arrange hospitalization
- Ambulance/police

If suicide is not imminent:

- Inform person close to patient
- Limit access to means
- Arrange contact and follow-up

treatment. Involvement of social and environmental supports including psychoeducation for family members and friends may greatly enhance the engagement of the patient in the treatment process.

Psychotherapy

Individual or group psychotherapy may be effective depending on the patients' needs. Social isolation, which is common in elderly patients, can be reduced by group therapy. Cognitive behavioural therapy (CBT) has shown a reduction of symptoms in somatizers.

Antidepressant Medications

Antidepressant medications have been proven effective for treatment of depression in seniors and may be useful alone or in combination with other treatment strategies. A lower starting dose and slower titration is recommended in the elderly to minimize adverse reactions. Selective serotonin reuptake inhibitors (SSRIs), serotonin norepinephrine reuptake inhibitors, and St. John's Wort (for mild depression) have less adverse effects and drug interactions than other antidepressant categories such as tricyclic antidepressants (TCAs) and monoamine oxidase inhibitors (MAOIs). Antidepressants may take four to six weeks to achieve a full treatment effect and an adequate trial must be at least this duration (Table 5).[9]

Medication Review

Many medications have been shown to cause depressive symptoms (corticosteroids and sedative-hypnotics, interferon, calcium channel blockers, tamoxifen, clonidine, cimetidine, and digitalis). Examining the temporal course of medications and depressive symptoms is helpful in making treatment decisions (*e.g.*, drug discontinuation) in individual patients.

Table 5
Recommended Antidepressant Medications

Medication	Starting dose (mg/q.d.)	Target dose (mg/q.d.)
First line		
Citalopram	10	20–30
Sertraline	25	50–100
Venlafaxine	37.5	75–225
Mirtazapine	7.5	15–30
Bupropion	100	150–300
Paroxetine	10	20–40
Escitalopram	5	10–20
Duloxetine	10	20–40
Second line		
Fluoxetine	10	20–40
Fluvoxamine	25	50–150
Third line		
Nortriptyline	25	50–75
Desipramine	25	100–150
Moclobemide	300	300–600

SSRIs compared in older adults[9]

- Efficacy is about the same for all SSRIs
  - Also for depression secondary to stroke or dementia and those with other comorbid physical disorders
  - Distinguishing features may influence the choice of agent
- SSRIs are effective and reasonably safe in elderly depressive patients with comorbid physical illness. Adverse effects are more common, but generally tolerable. Watch for hyponatremia
- The risk profile of SSRIs in this population can be considered favourable
  - Less anticholinergic and cardiotoxic effects vs.TCAs

For sedation

- Improve sleep hygiene first
- *Trazodone*: dependence rare
- *Mirtazapine*: antidepressant with sedative qualities. Only if antidepressant indicated; not just for sedation
- *Quetiapine*: antipsychotic with sedative properties. Only if antipsychotic indicated; not just for sedation
- *Benzodiazepines and similar sedatives*: avoid due to dependence and adverse effects in elderly patients

SSRIs: Selective serotonin reuptake inhibitors
TCAs: Tricyclic antidepressants

Activation Strategies

Adequate treatment of other medical conditions concurrent with depression treatment will assist the patient in making a full recovery. Particular attention should be paid to chronic pain management, nutritional balance, and sleep hygiene. Engaging in pleasurable activities on a daily basis and daily exercise are as effective as medication for mild depression. Social and spiritual supports should also be mobilized.[10]

Electroconvulsive Therapy (ECT)

ECT is more effective than any other treatment for depression and well tolerated by the elderly population. Reasons for a trial of ECT in elderly depressed patients include:[11]

- Inadequate response to adequate trials of medication and/or psychotherapy treatment
- Medication intolerance
- Significant or severe symptoms such as refusal to eat or drink causing significant health risk Dx

Take-home Messages

- Late-life depression is common yet under-diagnosed and undertreated
- Geriatric patients may have atypical signs and symptoms of depression. They may not endorse low mood or sadness but may be more focused on prominent somatic symptoms "exaggerated aches and pains"
- Geriatric patients with depression are at high risk for suicide and substance abuse

References
1. Katon W, Schulberg H: Epidemiology of Depression in Primary Care. Gen Hosp Psychiatry 1992; 14(4):237–247.
2. American Psychiatric Association. American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders (4th ed. text revision), Washington, DC: 2000.
3. Alexopoulos GS, Borson S, Cuthbert BN, *et al*: Assessment of Late Life Depression. Biol Psychiatry 2002; 52(3):164–174.
4. Holley C, Murrell SA, Mast BT: Psychosocial and Vascular Risk Factors for Depression in the Elderly. Am J Geriatr Psychiatry 2006; 14(1):84–90.
5. Alexopoulos GS, Katz IR, Reynolds CF 3rd, *et al*: Pharmacotherapy of Depressive Disorders in Older Patients. Postgrad Med 2001; Spec No Pharmacotherapy:1–86.
6. Lapid MI, Rummans TA: Evaluation And Management of Geriatric Depression In Primary Care. Mayo Clin Proc 2003; 78(11): 1423–1429.
7. Conwell Y, Duberstein PR, Caine ED: Risk Factors For Suicide in Later Life. Biol Psychiatry 2002; 52(3):193–204.
8. Duckworth G, McBride H: Suicide in Old Age: A Tragedy Of Neglect. Can J Psychiatry 1996; 41(4):217–222.
9. Solai LK, Mulsant BH, Pollock BG: Selective Serotonin Reuptake Inhibitors for Late-life Depression: A Comparative Review. Drugs Aging 2001; 18(5):355–368.
10. Oxman TE, Hull JG: Social Support and Treatment Response in Older Depressed Primary Care Patients. J Gerontol B Psychol Sci Soc Sci 2001; 56(1):P35–P45.
11. Flint AJ, Rifat SL: The Treatment of Psychotic Depression in Later Life: A Comparison of Pharmacotherapy and ECT. Int J Geriatr Psychiatry 1998; 13(1):23–28.

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