

DEPRESSION IN OLDER ADULTS

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CONCEPTUALIZING DEPRESSION

- **Categorical approach:** Mood disorders are mutually exclusive, distinct entities
 - MDD, Dysthymia, Bipolar
 - Exemplified in DSM-5, allied with traditional medical model
 - This approach has been adopted by most geriatric psychiatrists
- **Unitary phenomenon :** the various manifestations of depression form a continuum.
 - Checklists (CES- D, GDS) help determine the degree
 - Mood disorders are not mutually exclusive entities - there is overlap
- **Functional approach :** social functioning/ role fulfillment as markers of improvement rather than symptoms.
 - Can use V code to document problems in social environment, e.g. 'Problem Related to Living Alone (V60.3)

SUBTYPES OF DEPRESSION LATER IN LIFE

- Bipolar and related disorders
- Major depressive disorders
- Persistent depressive disorder (dysthymia)
- Depressive episode with insufficient symptoms
- Substance/medication induced depressive disorder
- Depressive disorder due to another medical condition
- Trauma and stressor related disorders
- Persistent complex bereavement disorder
- Adjustment disorder with depressed mood

Geriatric Depression Scale (short form)

Geriatric Depression Scale

DATE: TIME (24hr):

Choose the best answer for how you have felt over the past week:

Yes / No

- | | | |
|--|--|-------------------------------------------------------------------------------|
| | | 1. Are you basically satisfied with your life? |
| | | 2. Have you dropped many of your activities and interests? |
| | | 3. Do you feel that your life is empty? |
| | | 4. Do you often get bored? |
| | | 5. Are you in good spirits most of the time? |
| | | 6. Are you afraid that something bad is going to happen to you? |
| | | 7. Do you feel happy most of the time? |
| | | 8. Do you often feel helpless? |
| | | 9. Do you prefer to stay at home, rather than going out and doing new things? |
| | | 10. Do you feel you have more problems with memory than most? |
| | | 11. Do you think it is wonderful to be alive now? |
| | | 12. Do you feel pretty worthless the way you are now? |
| | | 13. Do you feel full of energy? |
| | | 14. Do you feel that your situation is hopeless? |
| | | 15. Do you think that most people are better off than you are? |

TOTAL GDS:

(GDS maximum score = 15)

0 - 4 normal, depending on age, education, complaints
5 - 8 mild
8 - 11 moderate
12 - 15 severe

EPIDEMIOLOGY: DEPRESSION IN COMMUNITY SETTINGS

- In one Duke University study¹, >1,300 older adults in urban and rural communities were screened for depressive symptomatology.
 - 27% reported depressive sx
 - 19% of those reporting depressive sx had mild dysphoria only
 - 4% severe depression – these individuals were experiencing stressors such as physical illness or stressful life events
 - 2% dysthymia
 - 0.8% current major depressive episode

COMMUNITY SETTINGS CONT.

- **A** 2012 study² found that the frequency of major depression in the community was ~3.7% among individuals 75-84
 - 2.1% among those 75 years or older
 - 1.2% mixed depression and anxiety syndrome
- The study suggests that the DSM-5 depression categories do not apply to most depressed older adults in the community, and other surveys have confirmed the lower frequency of major depression in the community.

HOSPITAL AND LONG TERM CARE SETTINGS

- Frequency of major depression among older adults much higher than in community³.
- ~21% of hospitalized elders meet criteria for major depressive episode
- An additional 20-25% have minor depression
- Nursing homes show even higher rates, some studies showing rates >25%

IMPLICATIONS

- Depression in late life is a term capturing many constructs, some ill defined
- Burden of depression in elderly patients is unquestioned
- Many older persons with atypical presentations of depression do not meet criteria for major depression yet have clinically significant depression

CLINICAL COURSE

- While episodes of depression almost always remit, at least partially, depression is a chronic and recurrent illness.
- One study from the Netherlands⁴ illustrates this chronicity. Among subjects with clinically sig. depression sx:
 - 23% improved
 - 44% experienced an unfavorable but fluctuating course
 - 33% experienced a severe and chronic course

The prognosis from clinical studies of depressed older adults with late life depression is similar to that found in younger adults IF the older adult does not have comorbid medical illnesses, functional, or cognitive impairment. **Comorbid depression is associated with a less favorable prognosis.**

Poor social support and functional limitations, also increased the risk for poor prognosis

CLINICAL COURSE

- Classic studies of depression suggest that the duration of major depression throughout the life cycle is approximately 9 months if untreated.
- However, as individuals age they may experience more frequent episodes, which can then merge into a chronic condition.
- Patients with dysthymia experience a more chronic clinical course than persons with MDD

DEPRESSION AND MEDICAL PROBLEMS

- Depression and medical problems are often comorbid and the causal pathway is thought to be bidirectional.
 - Depression is a frequent cause of weight loss late in life
 - Similarly, Frailty → weight loss → clinically important depressive sx

Chronic illnesses associated with depression: Cardiovascular disease, diabetes, osteoporosis, hip fx, and more.

The mechanisms of this association are not well documented, however, the authors assert that clues have emerged:

Ex. : Platelet activation is increased in older depressed patients, especially those with a specific polymorphism in the serotonin transporter linked promoter region, leading to higher levels of platelet aggregation and beta thrombulin, increasing the risk for MI.

DEPRESSION AND COGNITIVE IMPAIRMENT

- Cognitive impairment is associated with depressive symptoms, with improvement in depression often improving cognitive symptoms.
- Depression and cognitive impairment are a risk for later emergence of Alzheimers or vascular dementia, likewise vascular lesions in the brain can lead to onset of depression in older adults
 - Recently, considerable study has been focused on structural brain changes and the outcome of depression in older adults.
 - Ribeiz et al (2013)⁵ found that both a lower baseline score on the MMSE and lower baseline orbitofrontal cortex volume predicted poor outcomes.

DEPRESSION AND MEDICAL PROBLEMS

- The best established association between depression and physical problems is between depression and functional impairment
 - In one study⁶, depressed older adults were 67% more likely than non depressed to experience impairment in ADL's and 73% more likely to experience mobility restrictions 6 years following initial eval.

The working hypothesis for this bidirectional relationships include:

- Propensity for physical disability → higher frequency of negative life events → incr. risk of depression

DEPRESSION AND MEDICAL ILLNESS

- This is not normal aging. Functional decline is not inevitable, even with older adults who become depressed.
- Help in tasks necessary to ADLs can be protective of functional abilities and therefore buffer against the onset of depression.

DEPRESSION AND MEDICAL PROBLEMS

- All cause mortality is a significant adverse outcome of late life depression.
- 72% of studies demonstrated a positive association between depression and mortality in older adults , with both severity and duration of depressive sx predicting mortality

ETIOLOGY

- Biological
 - Genetics
- Psychological
 - Personality attributes, neuroticism, cognitive distortions, emotional control
- Social
 - Stressful life events, bereavement, chronic stress, low SES, impaired social support

GENETIC ORIGINS OF LATE LIFE DEPRESSION

- Biological risk factors
 - Genetics, female sex, neurotransmitter dysfunction, endocrine changes, vascular changes, medical illness, other psychiatric disorders

Some studies suggest that genetic contribution is weaker in late life depression than in earlier stages of life.

PSYCHOLOGICAL ORIGIN

- Psychological risk factors
 - Personality, neuroticism, cognitive distortions, social origins, stressful events, chronic stress, low SES
 - These factors may contribute to onset of late life depression but are not specific to the origins of depression in older individuals.
 - A 2013⁷ study showed that the presence of neuroticism was associated with poor mood and cognitive outcomes among treated older patients.

SOCIAL ORIGINS

- Stressful life events, bereavement, chronic stress/strain, low SES, impaired social support
- A 1982⁸ study found a strong association between severe life events and social difficulties with onset of late-life depression.
 - Older adults without someone to confide in were particularly susceptible, suggesting that social support may buffer the onset of depression

A 2002⁹ meta analysis reported that the total number of life events and the total number of daily hassles were strongly associated with depressive sx

Sudden unexpected events were not related to depression

SOCIAL ORIGIN

- Older adults are at greater risk for depressive symptoms secondary to stressful life events than younger adults
 - 3 modifying factors:
 - 1. ongoing problems have smaller effect in older than younger
 - 2. predictable events cause less depression in older adults than younger adults (ex. death of a spouse)
 - 3. Many events that lead to depression (divorce, legal troubles) occur earlier in life

DIFFERENTIAL DIAGNOSIS

Bipolar and related disorders

Major depressive disorder

Major depressive disorder with psychotic features

Persistent depressive disorder or Dysthymia

Depressive episode with insufficient symptoms

Depressive disorder due to another medical condition

Adjustment disorder with depressed mood

DIFFERENTIAL DIAGNOSIS OF LATE LIFE MOOD DISORDERS: BIPOLAR AND RELATED

To meet criteria for manic episode, individual must exhibit 3 or more (or 4 or more if mood is irritable) of the following sx:

1. inflated self esteem or grandiosity
2. decreased need for sleep
3. More talkativeness than usual
4. Flight of ideas
5. Distractibility
6. increased goal directed activity or psychomotor agitation
7. Excessive involvement in pleasurable activities with potential adverse consequences.

Bipolar disorder varies with aging.

Difficult to tease out cognitive dysfunction due to mania from neurocognitive disorders.

MAJOR DEPRESSIVE DISORDER

- Dx made when individual exhibits one or both of 2 core sx:
 - Depressed mood
 - Lack of interest or pleasure

PLUS 4 or more of the following for at least 2 weeks:

* Significant wt loss, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or excessive guilt, diminished ability to concentrate, suicidal ideation.

MAJOR DEPRESSIVE DISORDER >60 YO

- First onset episodes of major depression after 60 years are common, comprising $\frac{1}{2}$ of all episodes in older adults.
- Personality abnormalities and family hx more common if depression is early onset (before 60)
- Phenomenology similar between early onset and late onset MDD

Bipolar and Related Disorders

- Mania: Must have 3 or more of the following criteria
 - Inflated self esteem or grandiosity
 - Decreased need for sleep
 - Talkativeness more than normal
 - Flight of ideas
 - Distractibility
 - Increased goal oriented activity or psychomotor agitation
 - Excessive involvement in pleasurable activities with possible negative consequences
- Bipolar Disorder in Older Individuals
 - Atypical presentation of mania
 - May present with perservative behavior, catatonia-like symptoms, and even negativistic symptoms
 - Distinguish from Delerium

Major Depressive Disorder

- Must have at least one core symptom
 - Depressed mood
 - Anhedonia
- Must have at least 4 of the following symptoms for at least 2 weeks
 - Weight loss
 - Insomnia or hypersomnia
 - Psychomotor agitation or retardation
 - Fatigue or loss of energy
 - Feelings of worthlessness or guilt
 - Poor concentration or decision making
 - Suicidal Ideation
- First incidences of MDD are common after 60yo
- Presentation is mostly comparable to younger adults

MDD with Psychotic Features

- Depressed patients over age 60 more likely to have delusions
 - Delusions of persecution more common than guilt
 - Nihilistic delusions more common in later life
 - Delusional depression responds better to ECT compared to TCA
- Abdominal focus more common but hallucinations uncommon
- Mood congruent vs. mood incongruent symptoms
 - Congruent- symptoms consistent with typical depressive themes
 - Incongruent- symptoms not consistent
- Psychotic depression associated with lack of social support and bipolar illness

Persistent Depressive Disorder (Dysthymia)

- May exist at any point in life cycle and can coexist with MDD
- May present differently in older vs. younger patients
- Symptoms must last at least 2 years with at least 2 of the following symptoms
- Feelings of hopelessness
- Too little or too much sleep
- Low energy or fatigue
- Low self-esteem
- Poor appetite or overeating
- Poor concentration

Depressive Disorder Due to Another Medical Condition

- Common with inpatient settings and associated with a wide variety of medical conditions
- To qualify, mood disturbance must be a direct consequence of medical condition
- The level of physical functioning directly impacts level of depression in cancer patients
 - May directly impact mortality
- Increased mortality in cardiovascular patients with depression

Adjustment Disorder with Depressed Mood

- Maladaptive reaction to an identifiable stressor
- AD must occur within 3 months of stressor and have a clear relationship with the stressor
- Stressors include marital problems, change of residence, or difficulty with children

Diagnostic Workup

- Thorough H&P
- Screening (Geriatric Depression Scale, Mini Mental Status Exam)
- Labs (CBC, metabolic panel, TSH, B12 or Folate)
- Head Imaging
- Polysomnography

Treatment

- Late life depression is often treated with four pronged therapy
 - Psychotherapy
 - Pharmacotherapy
 - Neurostimulation
 - Family Therapy

Psychotherapy

- CBT
 - Only Psychotherapy designed to specifically to treat depression
 - Therapy is directed and time limited with 10-25 sessions
 - Found to be beneficial for depressed older adults and those with chronic medical conditions
 - Goal is to change behavior and modes of thinking through methods such as weekly activity schedules and graded task assignments
 - Thompson et al. 1987
 - Psychotherapy provides incremental improvement comparable to pharmacological treatment in milder depression and may provide greater long term benefit
 - For minor depression or AD, active listening, simple support, or religious counseling may be sufficient

Pharmacotherapy

- SSRI
 - First choice for mild or moderate depression
 - No significant anticholinergic, orthostatic, or cardiac side effects
 - In older adults concerns for sleep disturbance, tremor, headache, GI side effects, hyponatremia, and weight loss

Pharmacotherapy

- SNRI
 - Second line therapy for depression unresponsive to SSRI
 - Duloxetine and venlafaxine effective in geriatric depression

Pharmacotherapy

- TCA
 - Useful in more severe depression unresponsive to SSRI or SNRI in patients capable of tolerating side effects
 - Nortriptyline, desipramine, doxepin commonly used for endogenous or melancholic major depression
 - Avoid in patients with heart block (2nd degree or higher), bifascicular bundle branch block, or a QTc interval greater than 480 milliseconds

Pharmacotherapy

- MAO Inhibitors
 - If chosen as an alternative due to intolerance to other medication side effects, the patient will likely not tolerate MAOI side effects as well
 - After treatment with SSRI wait 1-2 weeks (2-4 with Fluoxetine) before starting MAOI to avoid serotonergic syndrome
 - Wait 10-14 days after stopping MAOI before starting ECT

Pharmacotherapy

- Other Agents
 - Trazodone- Strong sedative effect with virtually no anticholinergic effects but risk of priapism, daytime sedation, and orthostatic hypotension
 - Bupropion- generally chosen when other drugs ineffective, risk of agitation in older adults
 - Low morning dose of stimulants may improve mood of apathetic older adults

Neurostimulation

- ECT
 - Most effective treatment for more severe major depressive episodes
 - Not a first line choice
 - Especially effective for major depression with melancholia and major depression with psychotic symptoms associated with agitation or withdrawal
 - Older adult depression is often unresponsive to medication and associated with significant side effects
 - Initiation requires thorough education of the treatment and its risks vs. benefits
 - As well as workup (CBC, UA, BMP, XR, ECG, CT/MRI)
 - All medications should be withdrawn prior to starting ECT
 - MAOI 10-14 days, Anticholinesterase drugs 1 week
 - LiCO₃, TCA, Antipsychotics, and antianxiety agents not absolutely contraindicated
 - Avoid benzos as they increase the seizure threshold
 - Chloral hydrate is best sedative-hypnotic (don't use night before)
 - Haloperidol or thiothixene best choices for severe agitation or psychotic symptoms during ECT Tx

Neurostimulation

- ECT
 - Prevent arrhythmia and aspiration with IM anticholinergic 30 mins prior to treatment
 - Immediately before, thiopental or methohexital given until no eyelash response
 - Succinylcholine to prevent severe muscle contractions
 - Unilateral electrode placement preferred over bilateral
 - Electrical stimulus applied → monitor tonic-clonic movements or with EEG
 - Best results occur with seizures greater than 25 seconds
 - Performed 3x/week with 6-12 treatments needed for adequate therapy
 - SE- ventricular contraction, arrhythmia, transient systolic HTN, confusion, amnesia, headache, status epilepticus, vertebral compression fracture

Neurostimulation

- ECT

- Tew et al. 1999- Patients over 60 tolerated ECT comparably to those under 60, and the response was similar or better
- Manly et al 2000- ECT may be more effective for and have fewer side effects than antidepressants in older patients
- Relapse rate after ECT may be greater than 50% in some patients and improved outcomes are found with prophylactic antidepressants or LiCO₃ after discontinuing ECT

Neurostimulation

- Repetitive Transcranial Magnetic Stimulation
 - A time varying magnetic field is generated by a simulator coil over the scalp which produces an intracranial current to activate neurons
 - Placed over the dorsolateral prefrontal cortex to treat depression
 - Safe and well tolerated
 - Older depressed patients seem to have decreased depression severity following tx

Family Therapy

- Family dysfunction may contribute to depression
- Family support often critical to successful outcomes
- Families can assist in the detection of behavioral change, remove tools that may assist in suicide, and administer medications
- Family education may be critical in improving patient outcomes

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