Mood disorders

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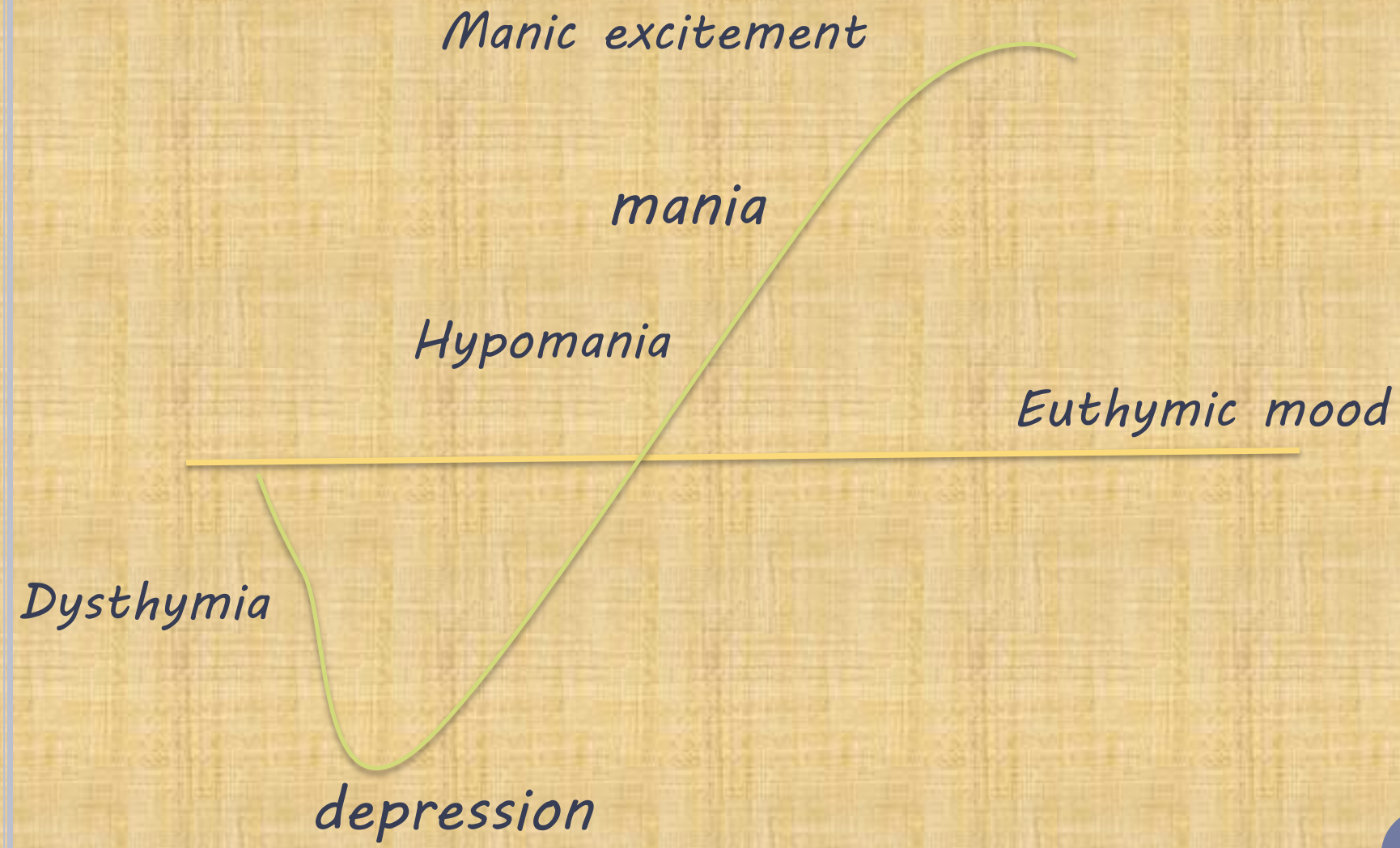
Manic excitement
mania
Hypomania
Euthymic mood
Dysthymia
depression

Depressive disorder

Epidemiology

Major depressive disorder is predicted to be the 2nd global disease. IHD is predicted to be first in global health disease burden

Incidence: 14·0 per 1000 persons

Age of onset: 25-45 years

Gender ratio: F:M = 2:1

Etiology

Genetics:

1) Family studies show that a person has 40-70% chance to develop depressive episode if a first-degree relative suffer from depressive episode.

2) Twin studies show that the concordance rate for monozygotic twins is 40 - 50% and for dizygotic twins is 20%.

3) Adoption studies show that the risk to develop depressive disorder of adoptees with family history of depressive disorder is twice as high as in adoptees without family history of depressive disorder.

Organic causes:

1) Physical illnesses include Cushing's syndrome, Addison's disease, Parkinson's disease, stroke, epilepsy, coronary arterial disease and hypothyroidism

2) Medications: Corticosteroids, oral contraceptive pills, beta-blockers, clonidine, metoclopramide, theophylline and nifedipine

Psychosocial factors:

(a) Adversity in childhood

- Maternal loss and disruption of bonding.
- Poor parental care and over-protection among parents.
- Childhood physical and sexual abuse.

(b) Adversity in adulthood

Men: Unemployment, divorce (e.g. unable to pay for maintenance fees and loss of custody).

- Women: Absence of a confiding relationship, having more than 3 children under the age of 14 and unemployment

(c) Recent life events

- Loss of a child.
- Death of a spouse.
- Divorce.
- Martial separation.
- Imprisonment.
- Recent death of a close family member.
- Unemployment.

(d) Presence of Cognitive errors

- Magnification (Explanation: An individual tend to magnify the magnitude of a failure and dismiss all the previous successes he has had)

- Overgeneralization (Explanation: An individual generalizes his failure in one area of his life to other areas of his life)

- Personalization (Explanation: An individual feels that he is entirely responsible for the failure and discount the role of other individuals in being responsible for the failure).

Neurobiology of depressive disorder:

1. Monoamine theory states that depressed patients have decreased levels of noradrenaline, serotonin and dopamine.

2. Other neurotransmitters include raised acetylcholine levels (associated with depressive symptoms such as anergia, lethargy, psychomotor retardation) and decreased levels of gamma-aminobutyic acid (GABA).

3. Neuroendocrinology: Elevated CRF, ACTH and cortisol in blood and CSF in depressed patients.

4. Neuroimaging: Ventricular enlargement, sulcal widening and reduction in size in the frontal lobe, cerebellum, basal ganglia, hippocampus and amygdala.

Diagnostic criteria:

The DSM-5 states that for individuals to fulfill the diagnostic criteria, they need to have at least 5 of the following symptoms for a minimum duration of 2 weeks:

a. Low mood for most of the days (core feature)

b. Diminished interest in almost all activities (core feature)

c. Weight loss of more than 5% of body weight within a month's duration

d. Sleep difficulties characterized as either insomnia or hypersomnia

e. Psychomotor changes characterized as either agitation or retardation

f. Generalized feelings of low energy nearly everyday

g. Feeling worthless, or with excessive guilt

h. Attention and concentration difficulties

i. Recurrent passive or active ideations of self- harm and suicide

These symptoms have caused marked impairments in terms of premorbid functioning.

There are several subtypes specified by DSM-5, which include:

1. With anxious distress - characterized by the presence of at least 2 of the following symptoms: Feeling restless, keyed up, difficulties with concentration, worries that something awful would happen, fear of losing control

2. With mixed features - characterized by presence of 3 or more of the following symptoms: elevated mood, grandiosity, increased speech, flight of ideas, increased energy, increased risky behavior, decreased need for sleep .

3. With melancholic features - characterized by the presence of either (a) Diminished enjoyment in most activities or (b) Unable to react to enjoyable stimulus; and at least 3 or more of the following symptoms: (a) Feelings of excessive guilt, (b) Decreased appetite (c) Psychomotor changes, (d) Early morning awakening (at least 2 hours in advance), (e) Low mood especially in the morning, (f) Distinctively low mood.

4. With atypical features - characterized by the following symptoms: (a) Ability of mood to react according to stimulus, (b) Significant increment in appetite or weight, (c) Increased duration of sleep, (d) Heave sensations in arms or legs, (e) Being sensitive to interpersonal rejection.

5. With psychotic features

6. With catatonia

7. With peri partum onset - characterized by mood symptoms occurring during pregnancy or in the 4 weeks following delivery

8. With seasonal pattern- characterized by regular association between mood symptoms and particular seasons in a year. Individuals should have full remission during the other seasons. At least 2 major depressive episodes must have demonstrated correlation with seasonality in the last 2 years for this diagnosis to be fulfilled.

Persistent Depressive Disorder (Dysthymia)

The DSM-5 specifies that an individual must have pervasive depressed mood for most part of the days, for a total duration of at least 2 years to qualify for the above diagnosis (1 year for children or adolescents).

Apart from depressed mood, the individual should have at least 2 of the following signs and symptoms:

a. Reduction or excessive oral intake

b. Difficulties associated with sleep - either insomnia or hypersomnia

c. Marked reduction in energy levels

d. Reduced self confidence

e. Attention and concentration difficulties

f. Feelings that life is worthless and hopeless

Differential diagnosis of depressive disorder include:

1· Adjustment disorder(less likely to have genetic history), dysthymia, bipolar disorder, eating disorders, schizoaffective disorder, schizophrenia with predominance of negative symptoms·

2· Dementia, Parkinson's disease, post-stroke depression and head injury in old people presenting with depression··

3· Addison's disease, Cushing's disease, hypothyroidism, parathyroid dysfunction, hypopituitarism and menopausal symptoms··

4· Systemic lupus erythematosus·

5· Syphilis and HIV encephalopathy·

6· Medication induced (e·g· beta-blockers, steroids, oral contraceptive pills)

7· Substance misuse (e·g· benzodiazepines, alcohol and opiates)·

Management:

The goal of treatment is to achieve symptomatic remission of all signs and symptoms of depression, restore occupational and psychosocial functioning, Counselling and supportive therapy alone may benefit those patients with mild depression.

- If sleep is a problem, doctor should offer sleep hygiene advice.
- If antidepressants are used as the first line of treatment, SSRI is the first line treatment. Tricyclic antidepressants (TCAs) must be avoided in suicidal patients because of their lethality in overdose. Doctors need to inform patient that the antidepressants will take 4 to 6 weeks to achieve its effect.

Doctors should be familiar with side effects and be able to explain to patients about the side effects.

Monotherapy with a single antidepressant is recommended.

• In patients who are reluctant to start antidepressants, or patients with comorbid medical conditions who may be unable to tolerate the antidepressants, psychotherapy may be considered as a first-line treatment.

• Hospitalization may be required if the patient poses high suicide risk to self. The acute phase of treatment is accepted as lasting 12 weeks.

• Combination with psychotherapy such as cognitive behavior therapy is recommended for patients with moderate depressive episode.

Electroconvulsive therapy (ECT):

1) Severe depressive disorder.
2) high suicide risk
3) Stupor or catatonia
4) Marked psychomotor retardation
5) Psychotic depression

Psychotherapy

1. Cognitive behavior therapy (CBT)
2. Interpersonal therapy (IPT)
3. Brief dynamic therapy
4. Other psychotherapies include supportive psychotherapy, problem solving therapy or marital therapy depending on clinical history and case formulation.

Course and prognosis: Depressive episodes may last from 4-30 weeks for mild or moderate depressive disorder to an average of around 6 months for severe depressive disorder.

- 10-20% of patients would have depression as a chronic disorder, with signs and symptoms lasting for around 2 years.

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- The rate of recurrence is around 30% at 10 years and around 60% at 20 years.
- Suicide rates for depressive individuals is 20% higher when compared to the general population.
- Good prognostic factors include acute onset of depressive illness, reactive depression and earlier age of onset.

Poor prognostic factors include insidious onset, old age of onset, neurotic depression, low self-esteem and residual symptoms.

Prognosis in old age onset is worst due to increase in white matter hyper intensities

Bipolar disorders

Epidemiology

Prevalence:
0·3 – 1·5% (overall)
0·2 – 4% (Bipolar I disorder)
0·3 – 4·8% (Bipolar II disorder)·

Main age of onset : 20 years· Gender ratio: 1:1

A etiology

Genetic: Family studies have demonstrated that children of parents suffering from bipolar disorder have a 9-fold increase in lifetime risk compared to the general population·

Twin studies indicate that monozygotic twins have 70% concordance rate and dizygotic twins have 20% concordance rate·

Monoamine theory states that increased levels of noradrenaline, serotonin and dopamine have been linked with manic symptoms· Excitatory neurotransmitter glutamate is also implicated·

Organic causes of mania:

- **Cerebrovascular accident**
- **Head injury**
- **Other CNS disorders:** Cerebral tumour, Dementia ,Epilepsy ,AIDs and Multiple sclerosis

Endocrine causes: Thyrotoxicosis, Thyroid hormone replacement ,Cushing's syndrome

Illicit substances: Amphetamine, Cannabis and Cocaine

Medications: Anticholinergic drugs ,Dopamine agonists (e·g· bromocriptine and levodopa),Corticosteroids or anabolic steroids,Withdrawal from baclofen, clonidine and fenfluramine· And Antidepressants·

Diagnostic criteria: Bipolar 1 Disorder

Manic Episode

DSM-5 specified that an individual needs to have at least 1 manic episode in order to fulfill the diagnostic

Criteria of Bipolar I disorder.

A manic episode is characterized by a period of time, of at least 1 week, during which the individual has persistent elevated or irritable mood and present for most of the days. In addition, the individual needs to have at least 3 (4 if mood is only irritable) of the following symptoms:

a. Increased self-confidence

b. Reduction in the need for sleep

c. More chatty than usual, with increased pressure to talk

d. Racing thoughts

e. Easily distractible

f. Increase in number of activities engaged

g. Involvement in activities that might have a potential for serious consequences

There must be marked impairments in terms of functioning with the onset of the above symptomatology.

Clinicians should note that for manic episode triggered by antidepressants usage, or even electroconvulsive therapy, the diagnosis of Bipolar I disorder could be made if symptoms persist even upon the discontinuation of the existing treatment.

Bipolar II Disorder

The DSM-5 diagnostic criteria states that for an individual to be diagnosed with bipolar II disorder, there must be a past or current hypomanic episode, in addition to a current or past major depressive episode. In addition, the symptoms affect functioning but not severe enough to cause marked impairment. Clinicians should not make this diagnosis if there has been previous manic episode.

Hypomania

A hypomanic episode is characterized by a period of time of at least 4 days, during which the individual has persistent elevated or irritable mood, present for most of the days. In addition, the individual needs to have at least 3 (4 if the mood is only irritable) of the following symptoms:

a. Increased self- confidence b. Reduction in the need for sleep

c. More chatty than usual, with increased pressure to talk

d. Racing thoughts

e. Easily distractible

f. Increase in number of activities engaged

g. Involvement in activities that might have a potential for serious consequences

Clinicians to note that for individuals with hypomanic episodes, their level of functioning will not be markedly impaired

Mixed episode and rapid cycling disorders

For mixed episodes, patients fulfil both manic and major depressive symptoms for at least 1 week. Rapid cycling as a course of bipolar disorder which consists of at least 4 episodes of mood disturbance (manic, hypomanic and major depressive episode) in one year. Ultra-rapid cycling describes 4 or more episodes in a month and it is a rare condition.

Management:

Acute treatment of mania: Hospitalization may be necessary in patients present with severe manic symptoms or pose serious risk e.g. violence, sexual indiscretions). Some manic patients who refuse treatment may require admission under the Mental Disorder and Treatment Act. Haloperidol may be used for the treatment of acute mania

Pharmacotherapy:

Mood stabilizers: Lithium, Sodium valproate, Carbamazepine, Lamotrigine.

Antipsychotics

Benzodiazepine

Non-pharmacological treatment

- Cognitive therapy to challenge grandiose thoughts.
- Behaviour therapy to maintain regular pattern of daily activities.
- Psychoeducation on aetiology, signs and symptoms, management and relapse prevention of bipolar disorder.
- Family therapy: To work on impact of manic symptoms on family and resolve interpersonal problems.

Course and prognosis

-Manic episodes usually last between 2 weeks to 4 months. Depressive episodes usually last for 6 months.

- Length of time between subsequent episodes may begin to narrow and remission time decreases with increasing age.

- Lithium can bring 60-70% remission rate.

- Good prognostic factors: female gender, short duration of manic episode, later age of onset, no suicidal thoughts, less psychotic symptoms, few comorbid physical conditions and good compliance.

- Poor prognostic factors include male gender, long duration of manic episode, early age of onset, suicidal thought, depressive symptoms, psychotic symptoms, comorbidity (e.g. alcohol or drug misuse) and poor compliance.

Seasonal affective disorder (SAD):

Definition: SAD is a form of recurrent depressive disorder, in which sufferers consistently experience low mood in winter months.

Worst months: November & December in Europe; January & February in US.

Aetiology: 1) melatonin/pineal gland abnormalities, replaced by theories on disordered brain 5HT regulation, phase advanced circadian rhythms. **2)** Biologically vulnerable individuals is affected by the actual effect of the changes in the seasons and specific anniversary or environmental factors in winter.

Clinical features: SAD presents with features of atypical depression - hypersomnia, hyperphagia, tiredness and low mood in winter. Remission also occurs within a particular 90-day period of the year. Seasonal episodes substantially outnumber any non-seasonal episodes that may occur..

Treatment: Light therapy involves a special light box which emits 2500 lux and mimics the effect of sunlight for at least 2 hours every morning (or 10000 lux for 30 minutes). . Effects are seen within a few days but it takes 2 weeks for the full effect.

50% of people with SAD show clinically significant response to light therapy. Untreated episodes resolve by spring time. Side effects include jumpiness, headache & nausea.