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An Overview on Depression: An Approach to Disorder and Management

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Central nervous system (CNS) disorder is the world's leading cause of disability and account of more hospitalizations. Central nervous system disorders are a group of neurological disorder that affect the structure or function of the brain or spinal cord. Depression (major depressive disorder or clinical depression) is a common but serious mood disorder. It causes severe symptoms that affect how you feel, think, and handle daily activities, such as sleeping, eating, or working. The aim of treatment is release of neurotrophic proteins in the brain that can help to rebuild the hippocampus that has been reduced due to depression and to optimize patients' physical, psychological and social functioning. This review presents a brief summary on psychological implications of living with depression, pathogenesis, diagnosis, causes, sign and symptoms and treatments associated with depression.

Keywords: Depression; lifestyle; bipolar disorder; management.

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ABBREVIATIONS

CNS : Central nervous system
5 HT : serotonin
NE : Norepinephrine
DA : Dopamine
BDGF : Brain derived growth factor
CRF : Corticotropic releasing factor
HPA axis : Hypothalamus-pituitary- adrenal gland axis
HPT : Hypothalamus-pituitary- thyroid
DSM : Diagnostic and Statistical Manual of Mental Disorders
CBT : Cognitive behavioural therapy

1. INTRODUCTION

Depression is a circumstance gloomy mood and revulsion to activity. It can disturb a person's judgements, performance, mental state, and sense of health. Possibly marks unhappiness, struggling judgments and focus and a remarkable elevation in taste and napping time. People experiencing depression may have feelings of misery, uselessness and sometimes suicidal thoughts. It can either be short term or long term [1]. The key sign of depression is said to be inability to feel pleasure in normally pleasurable activities. Which lead to loss of interest or a loss of feeling of desire in assured actions that ordinarily carry enjoyment to societies [2]. Miserable mood is an indicator of some mood conditions such as major depressive condition [3].

2. TYPES OF DEPRESSION

2.1 Persistent Depression

Mood that goes on for however two years known as Persistent depressive disorder (furthermore named dysthymia). A persistent depressive disorder person passes from episodes of major depression together with times of less severe signs, but signs must last for two years to be considered persistent depressive disorder.[4]

2.2 Postpartum Depression

Baby births activate unwanted powerful emotions, from excitement and bliss to fear and anxiety. But besides result it can come with something that you might not expect depression. Generally, moms suffer from postpartum "baby blues" after giving birth, which consist of mood swings, anxiety and insomnia. It is typically originate within the first two to three days after giving child birth, and remain up to two weeks. It is not a personality of weakness. Occasionally it's just a hurdle of child birth.[4]

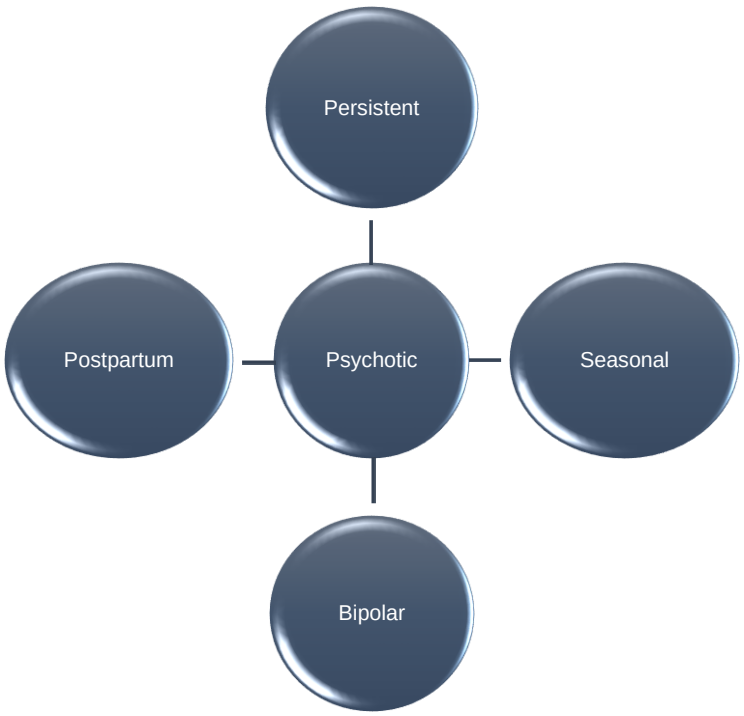

Fig. 1. Types of depression

2.3 Psychotic Depression

Alternatively known as **depressive psychosis**. Occurrence of depressive psychosis associated with condition of bipolar disorder or major depressive disorder. The psychotic symptoms characteristically have a depressive signature such as false impression of fault, poverty or illness.[4]

2.4 Seasonal Affective Disorder

Grouping of biologic and mood disturbances with a seasonal outline known as Seasonal affective disorder (SAS), usually arising in the spring or summer with decrease in the spring or summer time. Even if the situation is seasonally restricted, patients may have major deficiency from the related depressive signs [4].

2.5 Bipolar Disorder

It is known as manic depression. Representation of bipolar disorder done by episodes of depression and mania. A person with bipolar disorder also experiences extreme high – euphoric or irritable – moods called “mania” or a less severe form called “hypomania. Manic disorder is normally identified all through getting on teenage (teen years) or early adulthood. Occasionally, bipolar symptoms can appear in children. Bipolar disorder can also first appear during a woman’s pregnancy or following childbirth. Although the symptoms may vary over time, bipolar disorder usually requires lifelong treatment. Following a prescribed treatment plan can help people manage their symptoms and improve their quality of life [4].

3. SIGN AND SYMPTOMS OF DEPRESSION

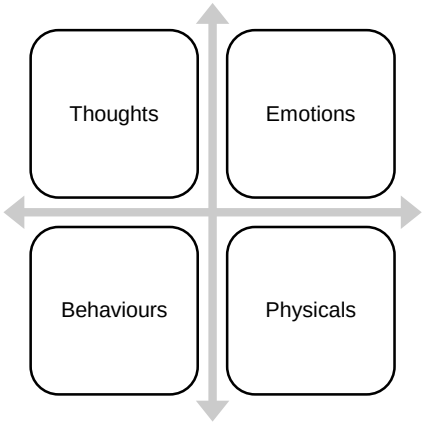

Fig. 2. Sign and Symptoms of Depression

Person who suffer from depression usually having of psychological, behavioural and physical changes.

Table 1. Psychological, behavioural and physical changes

Psychological changes	Behavioural changes	Physical changes
Anxiety	Social withdrawal	Weight gain
Mood swing	Crying spell	Weight loss
Reduced focus	Violent	Erectile dysfunction
Lack of interest	Suicide attempts	GI upset
hopeless	Sexual intimacy	Pains and aches

4. PATHOPHYSIOLOGY OF DEPRESSION

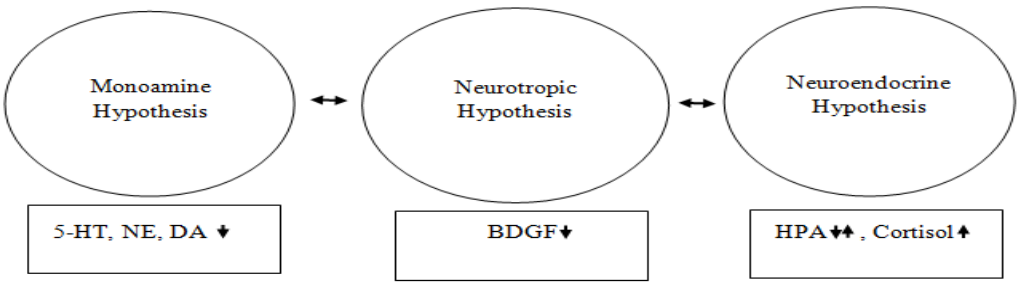

Fig. 3. Pathophysiology of Depression

Monoamine Hypothesis depression is related to a deficiency in the amount or function of and limbic serotonin (5- HT), norepinephrine (NE), and dopamine (DA). Neurotropic hypothesis: Brain Derived growth factor (BDGF) level may be responsible for loss of mono- aminergic neurons and loss of function or atrophy of hippocampus and other brain areas. Hippocampus loses its ability to inhibit CRF release by hypothalamus leading to increased release of glucocorticoids. Neuroendocrine hypothesis: Dexamethasone suppression test doesn't reduce cortisol level in 50% of depression patient; indicates imbalance in stress HPA axis (hypothalamus-pituitary-adrenal gland axis). Dysregulation in HPA axis results in increased corticotropic releasing factor (CRF) from hypothalamus (result of hippocampus atrophy), Enlarged adrenal gland and increased secretion of cortisol (glucocorticoids). Dysregulation in HPT axis (hypothalamus-pituitary- thyroid) creates thyroid hormone deficiency, which may be seen in depression [5].

5. DIAGNOSIS

5.1 Physical Exam

Your doctor may do a physical exam and ask questions about your health. In some cases, depression may be linked to an underlying physical health problem [6].

Table 2. DSM – 5 listed Disorders

Disruptive Mood Dysregulation Disorder
Major Depressive Disorder, Single and Recurrent Episodes
Persistent Depressive Disorder (Dysthymia)
Premenstrual Dysphoric Disorder
Substance/Medication-Induced Depressive Disorder
Depressive Disorder Due to Another Medical Condition
Other Specified Depressive Disorder
Un-Specified Depressive Disorder

5.2 Lab Tests

For example, your doctor may do a blood test called a complete blood count or test your thyroid to make sure it's functioning properly [6].

5.3 Psychiatric Evaluation

Your mental health professional asks about your symptoms, thoughts, feelings and behaviour patterns. You may be asked to fill out a questionnaire to help answer these questions [7].

5.4 DSM-5

Your mental health professional may use the criteria for depression listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), published by the American Psychiatric Association [7].

6. TREATMENT AND MANAGEMENTS OF DEPRESSION

Based on the severity of sign treatment may lead from weeks to several months. Generally, patient medication last for month if treated with pharmacotherapy. First line drug are drugs which shows improvement towards healing at minimum dose. Management of medication is important in treatment. Awareness of side effects and benefits of medication should necessary. First-line medication usually work but it takes several weeks with minimal side effects but some time several side effects arise which are moderate and not largely affect in the treatment. Based on the harshness tricyclic antidepressant, norepinephrine reuptake inhibitors, selective serotonin reuptake inhibitors, monoamine oxidase inhibitors, serotonin and norepinephrine reuptake inhibitors and norepinephrine-dopamine reuptake inhibitors are used in the treatment of mood disorder [8].

Currently, selective serotonin reuptake inhibitors, serotonin and norepinephrine reuptake inhibitors and norepinephrine-dopamine reuptake inhibitor are considered as a first-line medication. Salts or pure form of various agents such as fluoxetine, fluvoxamine, sertraline, paroxetine, citalopram, are used as selective serotonin reuptake inhibitors. Salts or pure form of various agents such venlafaxine, duloxetine milnacipran and venlafaxine are used as a serotonin and norepinephrine reuptake inhibitors. Salts or pure form of Bupropion is used as norepinephrine-dopamine reuptake inhibitor [9].

Non-pharmacologically depression rehabilitation centres are also use full in treatment and managements of mood disorder [10].

7. CONCLUSION

Mental well-being is a vital part of daily life. The diagnosis and treatment of various kind of

depressive disorders have marvellous public health significance. Due to the relatively high prevalence, their management should largely take place in primary care settings, as is the case of other common chronic diseases such as diabetes and hypertension. The availability of safe, well-tolerated, and effective antidepressant treatments facilitates management of depression in primary care settings.

CONSENT AND ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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