Major Depressive Disorder

Contents

Background

Major depressive disorder ranks as the third leading cause of the global disease burden by the WHO, with the disease projected to rank first by 2030. It is a multifaceted and complex condition that significantly damages the well-being-associated quality of life and psychosocial functioning. Clinical manifestations are highly variable, with significant differences in symptom profiles among individual patients. If sufferers with this disorder are to come back to productive and satisfying everyday lives, both functional and symptomatic recovery are needed (Kennis et al., 2019).

However, accomplishing these therapeutic goals remains difficult in clinical practice. Approximately half of all major depressive disorder (MDD) patients do not respond effectively to early antidepressant therapy, with sick people who achieve only a partial response experiencing significant impairments in their work efficiency compared to those who achieve remission (Belleau et al., 2019).

This paper focuses on the description, clinical course, diagnostic criteria, epidemiology and risk factors, etiology, interdisciplinary treatment and recovery, primary care barriers, nursing management, and pharmaceutical management of the major depressive disorder.

Description of the Disorder

MDD is a debilitating condition. MDD impacts one in every six people in their entire life and impacts about two times as many females as males. MDD has a multifactorial aetiology and heritable traits estimated to be around 35 percent heritable (Bastiaanssen et al., 2020). Furthermore, environmental factors, including physical, emotional, and sexual abuse of the child, are strenuously linked to the risk of advancing MDD. No known mechanism can illustrate every aspect of the disease (Guidi & Fava, 2020).

However, MDD is associated with variations in regional brain portions, especially the hippocampus, and functional variations in brain circuits like the affective–salience and cognitive control systems. To set suitable treatment priorities, healthcare providers and patients must collaborate to make shared decisions. It is diagnosed once an individual has a consistent depressed or low mood, a loss of interest in enjoyable activities (anhedonia), feelings of worthlessness or guilt, decreased energy, appetite changes, poor concentration, psychomotor agitation or anomalies, sleep problems, or suicidal ideation (Hacimusalar & Esel, 2017).

Moreover, MDD causes disruptions in the immediate neurobiological stress-responsive processes, such as the immune system and the hypothalamic-pituitary-adrenal axis. The cornerstones of therapies are pharmacological and psychotherapy therapy. Electroconvulsive therapy is the intervention with the most empirical evidence for care-resistant sufferers who have never responded to any combination or augmentation treatment efforts (Hasin et al., 2018).

Episodes of depression in MDD can last 6–12 months if left untreated. Approximately two-thirds of people with MDD consider suicide and 10-15 percent engage in self-harm. MDD is a recurring, chronic ailment; the risk of recurrence after the initial episode is approximately 50 percent, 70 percent following the second episode, and 90 percent following the third episode (Köhler-Forsberg et al., 2019).

Approximately 5-10 percent of MDD patients have bipolar disorder. Patients with mild episodes, a dearth of psychotic symptoms, improved treatment adherence, a robust support network, and excellent premorbid functioning have a better prognosis for MDD. The prognosis is bad in the presence of a comorbid psychological illness, multiple hospitalizations, a personality disorder, and the late age of occurrence (Guidi & Fava, 2020).

MDD is among the leading global risk factors for disability. It induces significant functional impairments and harms interpersonal connections, lowering one's standard of living. Individuals suffering from this disorder are at an increased risk of experiencing comorbid anxiety and substance use ailments, which further intensifies their suicide risk (Hasin et al., 2018).

Hyperglycemia, high blood pressure, coronary artery disorders, and chronic obstructive pulmonary disease can all be exacerbated by depression. Individuals who are depressed are more likely to engage in self-destructive behaviour as a coping method. If untreated, MDD can be severely debilitating (Setiawan et al., 2018).

Clinical Course

To be diagnosed with major depression, a person must experience at least one major depressive episode lasting for a minimum of two weeks. Furthermore, depressive symptoms must last for most days, almost every day, and interfere with social relationships, work, or somebody's capacity to function in everyday life (Davis et al., 2020).

Some people with milder forms of severe depression may appear to have normal occupational and social functioning, but the affected individual makes a significant, concerted

attempt to appear untroubled. When an individual has only had one depressive episode, it is called "major depression, single episode." When several major depressive episodes happen without any mixed or manic episodes, the diagnosis is changed to major depression, reoccurring (Shen et al., 2019).

Diagnostic Criteria

Major depressive disorder has long been a medical diagnosis; a detailed medical history and a psychiatric status assessment primarily determine it. Including the clinical presentation, the medical interview should include health information, family medical history, substance use record, and social context. Collateral data from a person's caregiver is a critical component of a psychological examination (Hasin et al., 2018).

A thorough physical evaluation and neurological assessment must be carried out. Any organic factor underlying a depressive disorder must be ruled out. A complete medical history and the psychiatric and medical histories of the patient's family must be obtained. The mental status examination is critical in evaluating and diagnosing MDD (Hacimusalar & Esel, 2017). Although there has been no objective screening usable to diagnose MDD, regular laboratory work such as a complete blood count with the comprehensive and differential metabolic panel, free T4, thyroid-stimulating hormone, urinalysis, toxicology screening, and vitamin D is performed to diagnose medical or organic causes of MDD (Davis et al., 2020).

Individuals suffering from depression frequently present to the primary care practitioner with somatic complaints about their depressive episodes instead of seeing a psychological health professional. Nearly half of the patients simply deny having depressive symptoms. They are frequently brought to care by family members or sent by employers to be evaluated for anxiety and reduced activity. At every meeting, it is critical to assess a person for suicidal and homicidal thoughts (Chen et al., 2018).

The Patient Health Questionnaire-9 is a self-reported, standardised depression grading scale commonly utilised in primary care settings for diagnosing, monitoring response to therapy, and screening for MDD. The PHQ-9 evaluates for psychosocial deficits and uses nine items that coincide with the DSM-5 criteria for depression. PHQ-9 scores ranged from 0 to 27, with results equal to or greater than 10, indicating the possibility of MDD. The Hamilton Grading Scale for

MDD, a clinician-employed depression rating scale, is widely used in most hospital environments to evaluate depression (Hasin et al., 2018).

The authentic HAM-D contains 21 items regarding depression indications, but scoring is premised only on the initial 17 items. The Beck Depression Inventory, the Montgomery-Asberg Depression Rating Scale, the Raskin Depression Rating Scale, the Zung Self-Rating Depression Scale, and other evaluations are among the others (Belleau et al., 2019).

Epidemiology and Risk Factors

Major depressive disorder is a common psychiatric disorder. It has a higher incidence, ranging from 5 percent to 17 percent, with a mean of 12 percent (Bastiaanssen et al., 2020). The incidence rate among females is nearly double that of males. This disparity has been attributed to hormonal differences, the impacts of childbirth, diverse psychosocial stress factors in women and men, and a behavioural framework of learned helplessness. Although the average age of onset is around 40 years, recent studies have found an increase in incidence in the youth demographic due to drug and alcohol abuse (Hasin et al., 2018).

MDD is more prevalent in separated, detached, or divorced people who do not have close interpersonal relationships. There is no difference in the incidence of MDD between races or socioeconomic statuses. Individuals with MDD frequently have co-occurring disorders such as substance abuse, social anxiety disorder, obsessive-compulsive disorder, and panic disorder. The existence of these comorbidities in people with MDD raises their suicide risk. Depression is more common in older adults who have comorbid diseases or conditions. Depression is found to be more common in rural regions than in urban regions (Helm et al., 2018).

Aetiology

The aetiology of MDD is considered multifactorial, with genetic, biological, psychosocial, and environmental factors playing a significant role. MDD was previously thought to be caused primarily by neurotransmitter anomalies, particularly norepinephrine, dopamine, and serotonin. This has been demonstrated by the use of various antidepressants. Serotonin metabolism was found to be very low in individuals who had suicidal thoughts. However, contemporary theories suggest that it is linked chiefly with more intricate neuro-regulatory

processes and neuronal pathways, resulting in secondary disruptions of neurotransmitter systems (Hacimusalar & Esel, 2017).

The inhibitory neurotransmitters GABA, glycine, and glutamate, both important excitatory neurotransmitters, are involved in the aetiology of MDD. Depressed patients possess lower GABA thresholds in their plasma, brain, and CSF. GABA is meant to act as an antidepressant by hindering ascending monoamine mechanisms, such as those in the mesolimbic and mesocortical systems. The antidepressant properties of drugs that antagonise NMDA receptors have even been investigated. Growth hormone and thyroid hormone anomalies have also been linked to the aetiology of psychiatric conditions. Trauma and multiple adversities in childhood have been linked to depression in later life (Shen et al., 2019).

Excessive early stress may induce substantial shifts in behavioural and neuroendocrine responses, resulting in structural variations inside the cerebral cortex as well as extreme depression at a later age (Davis et al., 2020). Functional and structural brain scanning of depressed people revealed increased hyper-intensities throughout subcortical regions and decreased anterior brain metabolic activity on the left side. Parents, twins, and adoption studies have all found that genes affect depression susceptibility. Genetic studies show that twins with MDD have a significantly elevated concordance rate. This is especially true for monozygotic twins. Personality traits and life events have also been shown to be involved (Belleau et al., 2019).

Interdisciplinary Treatment and Recovery

An interdisciplinary approach is required for the efficient and positive therapy of MDD. These collaborative services include primary care physicians, psychiatrists, nurses, social workers, case managers, and therapists. People with MDD frequently present somatic symptoms to their primary care physicians. In primary care settings, depression screening is critical. Regular screening of sick people using depression score scales, including the PHQ-9, can aid in early assessment and therapy, enhancing the overall output of MDD (Bastiaanssen et al., 2020).

Patient psychoeducation is essential for improving patient compliance and medication adherence. Recent research also suggests that lifestyle changes like daily exercise can alleviate depression-like moods. Suicide assessment at every psychiatric meeting can minimise suicide rates (Hammer-Helmich et al., 2018). Since sick people with MDD are more likely to commit

suicide, continuous supervision and follow-up by psychological health workers are required to ensure patient compliance and safety with psychiatric treatment. Families' engagement can help improve the overall output of mental health care. In meta-analyses of randomised trial studies, it has been found that collaborative care outperforms usual care regarding depression outcomes (Hacimusalar & Esel, 2017).

Primary Care Barriers

Primary care providers are frequently the first to diagnose, identify, and cure mental health problems. Nearly half of all people managed by depression obtain their medical services in primary care settings. Nevertheless, research has shown that certain factors impede the identification of this illness in the primary care setting, lowering the probability of a definitive diagnosis (Davis et al., 2020).

Patient-related parameters include a need for more understanding and awareness of the essence of the illness and its symptomatology in order to report them to the healthcare professional successfully. Variance in clinical manifestations and the existence of comorbid disease states further complicate detection. Physical illness complaints affect the clinical picture. A patient's ability to communicate with a healthcare professional may be hampered by age, sex, ethnic background, facility type, or religious practice (Hammer-Helmich et al., 2018).

Nursing Management

Nurses often conduct initial interviews with sick people in both outpatient and inpatient settings, asking questions regarding their health information and medication information and, in several amenities, screening sick people for suicidal ideation. Sufferers or their family members may tell nurses they have been depressed or down. Nurses can notify the medical team to further evaluate the patient's psychological health. Nurses can indeed offer education and support about MDD. If a patient communicates suicidal thoughts, the nurse should remain with the patient and interact with a healthcare provider. It is inappropriate to leave the patient alone (Chen et al., 2018).

Pharmaceutical Management

Therapeutic approaches for the major depressive disorder include pharmacological, interventional, lifestyle modification, and psychotherapeutic interventions. Medication, as well as psychotherapy, is used to heal MDD in its early stages. Combination treatment, which includes psychotherapy and medications, is more efficient than therapy alone. Electroconvulsive therapy is more effective than any other therapeutic option for major depression. The FDA has approved the following medications for treating MDD: All antidepressants are efficient, but their side-effect features differ (Bastiaanssen et al., 2020).

Selective serotonin reuptake inhibitors (SSRIs) encompass sertraline, fluoxetine, escitalopram, citalopram, fluvoxamine, and paroxetine. They are typically used as first-line therapies and the most frequently prescribed antidepressants. Serotonin-norepinephrine reuptake inhibitors involve duloxetine, venlafaxine, levomilnacipran, milnacipran, and desvenlafaxine (Davis et al., 2020).

They are frequently used to treat depressed patients who also have pain disorders. Serotonin modulators involve vilazodone, vortioxetine, and trazodone. Mirtazapine and bupropion are examples of atypical antidepressants. Once patients experience sexual adverse effects from SNRIs and SSRIs, they are frequently prescribed as augmenting agents or monotherapy. Tricyclic antidepressants involve imipramine, amitriptyline, doxepin, clomipramine, desipramine, and nortriptyline (Guidi & Fava, 2020).

Conclusion

Major depressive disorder is challenging and carries numerous facets due to the different possible distinct symptom combinations. MDD treatment remains a significant challenge. Determining the best alternative for every sufferer is the most effective means of achieving long-term and short-term efficacy. Antidepressants, explicitly somatic approaches, and structured psychotherapies have been the primary methods accessible to caregivers. Given the individual, public health, and financial stress that MDD induces, the disorder's high incidence among humans is cause for serious concern.

Consequently, there is still a need to minimise the incidence of this disorder. Attempts are being made to personalise and standardise psychotherapeutic therapies. Research protocols

involving somatic treatments must be researched more thoroughly, and their predictors must be stipulated.

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