CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

Available online at: http://www.iajps.com ***Review Article***

SCHIZOPHRENIA PRESENTATION AND MANAGEMENT

Khalid Kulaib Aloufi [1] , Tariq Hussein Alaslani [2] , Rakan Awadh Alhumaidi [3] , Khaled Hamdi Bin Yousef [3] , Abdullah Salman Mohammed Alamri [4] , Saaed Saoud AlHarthi [5] , Mohanad Mohammad S Aleisa [6] , Mohammed Ahmed Zrari [7] , Amal Mousa Ahmad Shibah [8] , Ibraheem Saeed Saadan Alzahrani [9] , Jafar Yassen Almomaten [10] , Badr Saad Dhawi Alghamdi [11] , Leena Esam Azhar [12]

[1]Consultant of Psychiatry & Addiction, Medical Director of Al-Amal Mental Health & Addiction Treatment Hospital, Jeddah oufi-psych@hotmail.com, 0556065577., [2]Al Amal Hospital For Addiction- Jeddah, [3]Mental Health Hospital,Taif, [4]Prince Mansour Military Hospital, Taif, [5]King Abdulaziz Hospital,Taif., [6]Public Health, taif, [7]Al Amal Psychaitry Hospital, [8]Jazan university, [9]Al-Shumaysi Medical Complex in Makkah, [10]AlAmal Complex for Mental Health – Riyadh, [11]Buljurashi Mental Health Hospital, [12]King Abdulaziz University.

Abstract:

Introduction: *Schizophrenia is considered a complex, chronic mental health disorder featured by a range of signs and symptoms, such as delusions, hallucinations, disorganized speech or behavior, and impaired cognitive ability. The onset of the disease, with its chronic course, make it a very disabling disorder for many patients and families. Disability usually are due to negative symptom known by loss or deficits as well as cognitive symptoms, like impairments in attention, working memory, or executive function. Additionally, relapse could result early due to the fact that positive symptoms, like suspiciousness, delusions, and hallucinations. The inherent heterogeneity of schizophrenia led to a lack of evidence concerning the disorder's diagnostic criteria, causes, and pathophysiology.*

Aim of work: *In this review, we will discuss schizophrenia presentation and management*

Methodology: *We did a systematic search for schizophrenia presentation and management using PubMed search engine (http://www.ncbi.nlm.nih.gov/) and Google Scholar search engine (https://scholar.google.com). All relevant studies were retrieved and discussed. We only included full articles.*

Conclusions: *Schizophrenia is considered a very complicated and complex clinical condition and mental health problem that needs proper management plan at the first signs of a psychotic episode. The prevalence of schizophrenia is proposed to be between less than one percent to two percent in the United States. Irregularities in neurotransmission have been the main focus for theories on the pathophysiology of schizophrenia. A diagnosis of schizophrenia is made by an evaluation of patient-specific signs and symptoms. Doctors should consider the potential for nonadherence and treatment related adverse effects when developing a comprehensive treatment plan. Though patients can increase adaptive functioning by the available pharmacological and nonpharmacological treatment options, future research is needed, and it should aim at decreasing the gaps in treatment and potentially a cure for schizophrenia.*

Key words: *schizophrenia, presentation, management.*

Corresponding author:

Khalid Kulaib Aloufi,

Consultant of Psychiatry & Addiction,
Medical Director of Al-Amal Mental Health & Addiction Treatment Hospital,
Jeddah oufi-psych@hotmail.com, 0556065577.

QR code

Please cite this article in press Khalid Kulaib Aloufi et al., ***Schizophrenia Presentation and Management.,*** *Indo Am. J. P. Sci, 2019; 06(01).*

INTRODUCTION:

Schizophrenia is considered a complex, chronic mental health disorder featured by a range of signs and symptoms, such as delusions, hallucinations, disorganized speech or behavior, and impaired cognitive ability. The onset of the disease, with its chronic course, make it a very disabling disorder for many patients and families. [1] Disability usually are due to negative symptom known by loss or deficits as well as cognitive symptoms, like impairments in attention, working memory, or executive function.2 Additionally, relapse could result early due to the fact that positive symptoms, like suspiciousness, delusions, and hallucinations. [2] The inherent heterogeneity of schizophrenia led to a lack of evidence concerning the disorder's diagnostic criteria, causes, and pathophysiology.

In this review, we will discuss the most recent evidence regarding schizophrenia presentation and management

METHODOLOGY:

We did a systematic search for schizophrenia presentation and management using PubMed search engine (http://www.ncbi.nlm.nih.gov/) and Google Scholar search engine (https://scholar.google.com). All relevant studies were retrieved and discussed. We only included full articles.

The terms used in the search were: schizophrenia, presentation, management.

PATHOPHYSIOLOGY:

Irregularities in neurotransmission have been the main focus for theories on the pathophysiology of schizophrenia. Most of these proposed theories focus on higher or a deficiency of neurotransmitters, involving dopamine, serotonin, and glutamate. Other proposed theories suggest that aspartate, glycine, and gamma-aminobutyric acid (GABA) as the cause of the neurochemical imbalance of schizophrenia.

ETIOLOGY:

In spite of more than a year of studies, the exact etiology of schizophrenia remains to be ambiguous. It is suggested, however, that the different types of the illness caused by many factors, involving genetic susceptibility and environmental influences. [3]

One on the proposed explanation for the development of schizophrenia is that the disorder begins *in utero*.6 Obstetric complications, such as bleeding during pregnancy, gestational diabetes, emergency cesarean section, asphyxia, and low birth weight, have been linked to schizophrenia later on.2 Fetal problems during the second trimester—a critical stage in fetal neurodevelopment—have been particularly of great importance to investigators. [4]

EPIDEMIOLOGY:

The prevalence of schizophrenia is proposed to be between less than one percent to two percent in the United States. Furthermore, a suggestion analysis has been estimating that the prevalence of diagnosed schizophrenia in the U.S. is five everyone thousand per year. [5] The prevalence of the disorder seems to be similar in males and females, though the beginning of symptoms happens at an earlier age in men than in women. Men usually experience their first episode of schizophrenia in their early twenties, while females frequently have their first episode in their late twenties or early thirties. [6]

Studies in the possible association between the geography of birth and the development of schizophrenia has concluded inconclusive evidence. A collaborative study by the World Health Organization in ten nations concluded that schizophrenia diagnosed more frequently across the various geographically defined populations. while, a newer review, which included data from thirty three countries, found that the incidence of schizophrenia varied by geographic location. [7-8]

CLINICAL PRESENTATION:

Schizophrenia is considered one of the most common functional psychotic disorder, and adults diagnosed with this problem could present with a wide range of signs and symptoms. In contrast to, portrayals of the medical condition in the media, schizophrenia is not a "split personality." However, it is a chronic psychotic disorder that disrupts the patient's thought process and affect. The medical condition commonly influences the patient's capability to be involved in social activities and to foster meaningful relationships. [7]

Social withdrawal, with other abnormal (schizoid) symptoms, frequently precedes a person's first psychotic episode; but some adults could have symptoms at all. A psychotic episode is known by patient-specific signs and symptoms that show the "false reality" created in the patient's mind.[9]As mentioned, the symptoms of schizophrenia are classified as positive, negative, or cognitive. Each is critically important as the doctor try to differentiate schizophrenia from other psychotic disorders, like schizoaffective disorder, depressive disorder with psychotic features, and bipolar disorder with psychotic features.

Positive symptoms are considered the easiest to recognize and can be categorized as "psychotic behaviors not seen in healthy people." These symptoms involve delusions, hallucinations, and abnormal motor behavior in varying degrees of severity. Negative symptoms are harder to find however they are associated with higher morbidity because they disturb the patient's emotions and behavior. The most common negative symptoms involve disturbed emotional expression and avolition. Patients could have alogia and anhedonia. It is critically important to understand that negative symptoms may be either primary to a diagnosis of schizophrenia or secondary to other clinical conditions such as concomitant psychotic diagnosis, medication, or environmental factor. [10]

Cognitive symptoms are the most recent classification in schizophrenia. These symptoms are nonspecific; so, they must be severe enough for another individual to notice them. Cognitive symptoms include disorganized speech, thought, and/or attention, ultimately impairing the individual's ability to communicate.

DIAGNOSIS:

As mentioned before, schizophrenia is considered a chronic disorder with different symptoms, where no single symptom is pathogenic. A diagnosis of schizophrenia is made by an evaluation of patient-specific signs and symptoms, as mentioned in the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition *(DSM-5).* The *DSM-5* suggests that "the diagnostic criteria [for schizophrenia] include the persistence of two or more of the following active-phase symptoms, each lasting for a significant portion of at least a one-month period: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior, and negative symptoms." At least one of the qualifying symptoms must be delusions, hallucinations, or disorganized speech. Furthermore, the *DSM-5* states that, to guarantee a diagnosis of schizophrenia, the patient must also have a lower level of functioning regarding work, interpersonal relationships, or self-care. There should also be continuous signs of schizophrenia for at least 6 months, involving the one-month period of active-phase symptoms noted above.

TREATMENT OPTIONS:

Nonpharmacological Therapy

The objectives in managing schizophrenia involve aiming at managing the symptoms, preventing relapse, and increasing adaptive functioning, therefore the patient is able to integrate back into the society. As patients rarely go back to their baseline level of adaptive functioning, both nonpharmacological and pharmacological treatments must be used to improve long-term outcomes.2 Pharmacotherapy is the main way of schizophrenia management, however residual symptoms could continue. nonpharmacological management, like psychotherapy, are also critical. [11]

Psychotherapeutic methods could be categorized into into 3 categories: individual, group, and cognitive behavioral.2 Psychotherapy is still developing therapeutic area. Emerging psychotherapies include meta-cognitive training, narrative therapies, and mindfulness therapy.

Pharmacological Therapy

In many schizophrenia cases, it is hard to device an effective rehabilitation programs without antipsychotic medications. proper starting of the medication is critical, particularly within 5 years after the first acute episode, as this is when most illness-related modifications in the brain happen.[12] Predictors of a bad prognosis involve the illicit use of amphetamines and other central nervous system stimulants, as well as alcohol and drug abuse. Alcohol, caffeine, and nicotine also have the capability to cause interactions with the medications and influence their concentrations. In the event of an acute psychotic episode, medication therapy should be given as soon as possible. During the first 7 days of starting the treatment, the main objective is to decrease hostility and to try to return the patient to normal functioning. At the beginning of treatment, proper dosing should be titrated based on the patient's response. Management during the acute phase of schizophrenia is usually proceeded by maintenance therapy, which should be aimed at increasing socialization and at improving self-care and mood. [13]

Long-Acting Injectable Antipsychotic Agents

Long-acting injectable (LAI) antipsychotic drugs have a valid option for patients who are nonadherent to an oral drugs. Doctors should decide whether the patient's nonadherence is because of the adverse effects of treatment. If so, then the clinician should consider an oral drugs with a more favorable side-effect profile. Before moving to LAI therapy, a short trial should be started with the oral counterpart of the LAI to decide on the tolerability. [14]

Treatment-Resistant Schizophrenia

Between ten and thirty percent of patients with schizophrenia present with little symptomatic improvement after multiple trials of FGAs, and an additional thirty to sixty percent will have partial or insufficient improvement or unacceptable adverse effects during antipsychotic medications. Clozapine is the most effective one when considering managing treatment-resistant schizophrenia. This medication is about thirty percent effective in managing schizophrenic episodes in treatment-resistant patients, in comparison to a four percent efficacy rate with the combination of chlorpromazine and benztropine. [14]

Augmentation and Combination Therapy

Both augmentation therapy and combination therapy could be considered for patients who fail to show an adequate response to clozapine. Doctors should observe the following guidelines when administering augmentation therapy: [15]

• The management must be used only in patients with an inadequate response to prior therapy.
• Augmentation medications rarely effective for schizophrenia symptoms when given alone.
• Patients are responding to augmentation treatment often improve rapidly.
• If an augmentation strategy does not improve the patient's symptoms, then the agent should be discontinued.

CONCLUSIONS:

Schizophrenia is considered a very complicated and complex clinical condition and mental health problem that needs proper management plan at the first signs of a psychotic episode. The prevalence of schizophrenia is proposed to be between less than one percent to two percent in the United States. Irregularities in neurotransmission have been the main focus for theories on the pathophysiology of schizophrenia. A diagnosis of schizophrenia is made by an evaluation of patient-specific signs and symptoms. Doctors should consider the potential for nonadherence and treatment related adverse effects when developing a comprehensive treatment plan. Though patients can increase adaptive functioning by the available pharmacological and nonpharmacological treatment options, future research is needed, and it should aim at decreasing the gaps in treatment and potentially a cure for schizophrenia.

REFERENCES:

1. **Lavretsky H.2008** History of Schizophrenia as a Psychiatric Disorder. In: Mueser KT, Jeste DV. Clinical Handbook of Schizophrenia. New York, New York: Guilford Press; 2008:3–12.
2. **Crismon L, Argo TR, Buckley PF.2014** Schizophrenia. In: DiPiro JT, Talbert RL, Yee GC, et al, eds. Pharmacotherapy: A Pathophysiologic Approach. 9th ed. New York, New York: McGraw-Hill; 2014:1019–1046.
3. **Siever LJ, Davis KL.2004** The pathophysiology of schizophrenia disorders: perspectives from the spectrum. Am J Psychiatry 2004;161(3):398–413.
4. **Beck AT, Rector NA, Stolar N, Grant P.2009** Biological Contributions. In: Schizophrenia: Cognitive Theory, Research, and Therapy. New York, New York: Guilford Press; 2009:30–61.
5. **Wu E, Lizheng S, Birnbaum H, et al.2006** Annual prevalence of diagnosed schizophrenia in the USA: a claims data analysis approach. Psychol Med 2006;36(11):1535–1540.
6. **American Psychiatric Association.2013** Schizophrenia and other psychotic disorders. In: Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Washington, D.C.; American Psychiatric Association; 2013:89–122.
7. **McGrath J, Saha S, Welham J, et al.2004** A systematic review of the incidence of schizophrenia: the distribution of rates and the influence of sex, urbanicity, migrant status, and methodology. BMC Med 2004;2:13.
8. **McDonald C, Murphy KC.2003** The new genetics of schizophrenia. Psychiatr Clin North Am 2003;26(1):41–63.
9. **National Institute of Mental Health.2009** Schizophrenia. 2009. Available at: http://www.nimh.nih.gov/health /publications /schizophrenia -easyto- read/nimh-schizophrenia-quadfold.pdf. Accessed June 20, 2014.
10. **Lehman AF, Lieberman JA, Dixon LB, et al.2004** American Psychiatric Association Practice Guidelines; Work Group on Schizophrenia. Practice guideline for the treatment of patients with schizophrenia, 2nd ed. Am J Psychiatry 2004;161(suppl 2):1–56.
11. **Dickerson FB, Lehman AF.2011** Evidence-based psychotherapy for schizophrenia: 2011 update. J Nerv Ment Dis 2011;199(8):520–526.
12. **Castle DJ, Buckley PF.2008** Schizophrenia. Oxford, United Kingdom: Oxford University Press, 2008.

13. **Kishimoto T, Robenzadeh A, Leucht C, et al.2014** Long-acting injectable vs oral antipsychotics for relapse prevention in schizophrenia: a metaanalysis of randomized trials. Schizophr Bull 2014;40(1):192–213.

14. **Kane J, Honigfeld G, Singer J, et al.1988** Clozapine for the treatmentresistant schizophrenic: a double-blind comparison with chlorpromazine. Arch Gen Psychiatry 1988;45(9):789–796.

15. **Lieberman JA, Stroup TS, McEvoy JP, et al2005**. Effectiveness of antipsychotic drugs in patients with chronic schizophrenia. N Engl J Med 2005;353(12):1209–1223.