



EXPLORATION OF AGGRESSIVE PROFILE IN TYPE 1 BIPOLAR PATIENTS

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ABSTRACT:

Aggressive behaviors in patients with Type 1 Bipolar Disorder (BD-I) represent a public health challenge, although not all bipolar patients display violence. A study was conducted on 50 patients hospitalized due to aggressive acts, revealing risk factors such as substance abuse, legal history, and socio-economic difficulties. The results show that violence is more frequent among young men, often in precarious situations, and that substance abuse significantly increases the risk of violent behavior. The relationship between BD-I and violence appears moderate, but it is exacerbated by factors such as drug use. Finally, biological factors, such as serotonergic dysfunction, may also explain this impulsive aggressiveness.

Keywords:

Aggressive behaviors, Type 1 bipolar disorder (BD-I), Hetero-aggressivity, Serotonergic dysfunction

INTRODUCTION:

Aggressive behaviors represent a public health issue often associated with severe psychiatric disorders.

Although most psychiatric patients are not aggressive, untreated psychiatric illnesses, including Type 1 Bipolar Disorder (BD-I), can be linked to an increased risk of hetero-aggressivity. However, studies suggest an increased risk of violent offenses among individuals with bipolar disorder. According to certain studies, the risk of violence in BD-I patients is, in some cases, 4.1 times higher than in the general population. [1] The behavioral disorders that accompany this condition profoundly disrupt the individual's life, damaging their familial and professional relationships.

The aim of this study is to establish the sociodemographic and clinical profile of patients diagnosed with Type 1 Bipolar Disorder who have been hospitalized due to aggressive behavior.

MATERIAL AND METHODS:

This is a cross-sectional and descriptive study conducted on 50 patients at the Psychiatry Department of Ibn Nafis Hospital - Mohammed VI University Hospital of Marrakech, who had a history of hospitalization due to aggressive behavior, during the period from June 1 to November 31, 2023.

The data collected focused on the sociodemographic, clinical, and therapeutic characteristics of the patients.

A bibliographic search was conducted in PubMed and MEDLINE using the following keywords: Aggressive, Bipolar Disorder, Violence, Mania.

RESULTS:

Fifty patients met the inclusion criteria. The average age of the patients was 32 years \pm 11.

Male patients represented 74% of the study population.

The average number of years of education was 7 years \pm 4.

Fifty-eight percent of the patients were single.

The majority of patients had unstable employment (66% unemployed and 34% day laborers).

The socioeconomic status was poor in 38% of cases.

Family psychiatric history was present in 28% of cases.

Sixty-four percent of patients were smokers, 44% had regular cannabis consumption, and 30% consumed alcohol.

Patients with a history of legal issues accounted for 20% of the study population.

The average age of onset of the disorder was 25 years \pm 9.

Regarding therapeutic characteristics, 62% of patients were on antipsychotics combined with a mood stabilizer such as Depakine, Tegretol, or Lithium (1 case). Thirty-eight percent were on atypical antipsychotics (Olanzapine, Aripiprazole, Quetiapine). Sodium valproate was prescribed to 54% of the patients, 44% were on Carbamazepine, and 2% were on Lithium. Long-acting neuroleptics were prescribed in 21% of cases.

Concerning treatment adherence, 34% had poor adherence, 34% had moderate adherence, and 32% had good adherence.

DISCUSSION

Evaluating the risk of hetero-aggressivity in patients with Type 1 Bipolar Disorder is crucial to prevent violent behavior. Certain data from the patient's medical history and mental status examination are universally important in assessing this risk: [2]

- A history of violent acts, especially recent ones, particularly if there have been legal consequences,
- Substance use,
- Traumatic past experiences (e.g., childhood abuse),
- Sociodemographic characteristics (young men from a low socio-economic status, unemployed, with limited social support),
- Comorbid personality disorders, often associated with past trauma, which predict a higher potential for violence in bipolar patients,
- Impulsivity, a significant feature of bipolar disorder. Information about previous impulsive acts, especially impulsive aggression, can give clinicians an idea of the likelihood of future violent acts.

It has been demonstrated that the risk is predominantly confined to bipolar patients with substance abuse. The prevalence of violent offenses among bipolar patients with comorbid substance abuse was 21%, but only 5% among bipolar patients without substance abuse and 3% among control subjects in the general population.

Compared to general population controls, the odds ratio (OR) for violent offenses in bipolar patients with substance abuse was 6.4. However, the increase in risk was minimal for bipolar patients without comorbid substance abuse (adjusted OR 1.3). The risk was not significantly higher compared to unaffected siblings of bipolar patients.

The rate of violent crimes was higher among bipolar men (13.8%) than bipolar women (4.2%). However, compared to the rates of violent offenses in the general population of the same sex, bipolar women had a higher risk of violent offenses (adjusted OR 4.1) than bipolar men (OR 1.9).

Furthermore, the study did not find a specific increase in the risk of violence associated with manic, mixed, or hypomanic episodes compared to depressive episodes, nor for psychotic bipolar episodes compared to non-psychotic episodes. [3,4]

The authors concluded that there is an increased risk of violent offenses among individuals with bipolar disorder. However, they argued that the risk associated with bipolar disorder itself appears minimal compared to the general population without comorbid substance use.

The increased risk of violence among the siblings of unaffected bipolar patients weakens the relationship between Type 1 Bipolar Disorder and violent offenses, highlighting the contribution of familial, genetic, and environmental factors. [5]

The biological psychiatry approach is also relevant here. A dysfunction, notably serotonergic, is currently one of the hypotheses for the etiology of mood disorders, as well as impulsive violent or suicidal behaviors.

Early studies showing an association between low levels of 5-hydroxyindoleacetic acid (5-HIAA), the main serotonin metabolite in cerebrospinal fluid, and impulsive or violent suicidal behaviors have been widely replicated in several countries. [3,6]

Impulsive aggression towards others has also been linked to a decrease in serotonin levels, both in animal models

and humans. Several studies have demonstrated serotonergic dysfunction in aggressors, alcoholics, and impulsive arsonists. [3,6,7]

A noteworthy study by Lidberg et al. [6,8] investigates the relationships between homicide, suicide, and 5-HIAA levels in cerebrospinal fluid. They measured 5-HIAA concentrations in 16 men convicted of homicide, 22 men who attempted suicide, and compared them to a control group of 39 healthy male volunteers. Men who committed homicide against their sexual partner (n = 5) had higher scores on the MADRS (Montgomery-Åsberg Depression Rating Scale) than other murderers and, like those who attempted suicide, had significantly lower 5-HIAA levels in cerebrospinal fluid.

Lidberg et al. [3,9,10] also observed this biological trait in three patients who attempted suicide. Brown and Linnoila [11,12,13] reported a case of a patient who murdered his mistress, with multiple previous suicide attempts, and whose 5-HIAA levels in cerebrospinal fluid were much lower than those of normal control subjects.

These findings suggest a potential serotonergic dysfunction as a common link between violent behaviors, suicide attempts, and aggression in bipolar patients, supporting the hypothesis that serotonin plays a significant role in the regulation of impulsive behaviors.

CONCLUSION:

It is essential to recognize the potential risk factors associated with violent behavior in individuals suffering from Type 1 Bipolar Disorder.

A comprehensive management approach, including appropriate pharmacological treatment, regular therapeutic follow-up, and social and familial support, can help mitigate these risks and promote a better quality of life for the individuals affected.

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