INTERNATIONAL SEVEN JOURNAL
OF MULTIDISCIPLINARY
ISSN: 2764-9547

BIPOLAR AFFECTIVE DISORDER IN A PSYCHIATRIC REFERRAL HOSPITAL: CASE REPORT

https://doi.org/10.56238/isevmjv4n2-015

Receipt of originals: 02/24/2025 **Acceptance for publication:** 03/24/2025

Maria Eduarda Ferreira Pinheiro[1], Andrea Cristina Alves de Medeiros Branco[2], Jeiel Melo da Costa[3], Dalva Bastos e Silva Coutinho[4], Marília Magalhães Aguiar [5], Eloiza de Sena Almeida[6], Camila Analice Sidonio Monteiro[7], Igor Nunes Pantoja[8], Vinicius Franco de Amorim Souza[9], Manuela Tauane Martins Carmin[10], Liliane Tabarana Pimentel Rodrigues[11], Aldair da Silva Guterres[12].

ABSTRACT

Objective: To report the case of a patient with Bipolar Affective Disorder (BAD) who was admitted to a psychiatric referral hospital. Methods: A descriptive, restrictive, and longitudinal study was analyzed in clinical data in the brief hospitalization sector of the mental health reference hospital in May 2024. Data collection was based on medical records and the consent form of the patient and her companion. Results Case Report: The patient presented psychotic break, auditory delusions and aggressive behavior during hospitalization. Treatment included antipsychotics, nutritional adjustments and metabolic monitoring, laboratory tests that showed changes in glucose, and inflammatory indicators. Family support and multidisciplinary follow-up were essential for the patient's recovery. Final considerations: The study highlights the management of BAD, the importance of an integrated approach including psychiatric, nutritional and family support.

Keywords: Bipolar Affective Disorder. Nutrition. Drug. Multidisciplinary Team.

[1] Nutrition Student
University of the Amazon UNAMA
[2] Nutritionist
Faculty of the Amazon FAAM
[3] Nutritionist
State University of Pará UEPA
[4] Nutritionist
Federal University of Pará UFPA
[5] Nutritionist
University Center of Pará CESUPA
[6] Nutritionist
UNINASSAU
[7] Nutrition Student
University of the Amazon UNAMA
[8] Nutrition Student
University Center of Pará CESUPA
[9] Nutrition Student
University of the Amazon UNAMA
[10] Nutrition Student
Gamaliel College
[11] Nutrition Student
UNICESUMAR
[12] Nutritionist
Federal University of Pará UFPA

INTRODUCTION

Bipolar Affective Disorder (BAD) is a chronic psychiatric condition characterized by extreme mood swings, with episodes of mania, hypomania, and depression (TORRES et al., 2024; KESSING et al., 2020).

It affects approximately 2 to 4% of the global population and is associated with a high risk of disability, suicide, and comorbidities, such as cardiovascular diseases (MARINHO et al., 2024; VIETA et al., 2020). The most common comorbidities are anxiety, eating, attention deficit hyperactivity disorder, and substance use, the latter being more prevalent (FILHO et al., 2023).

The management of BAD includes pharmacological treatments, such as the use of mood stabilizers and antipsychotics, along with psychotherapeutic interventions, such as cognitive behavioral therapy (LANGE et al., 2024; JOHNSON et al., 2020). Medication adherence in patients with bipolar disorder is a significant challenge, impacting treatment outcomes and quality of life. Non-adherence is common and is associated with increased relapse, hospitalization, and health care costs (LEVIN et al 2016; CHANCHONG et al 2018; JEMLI et al 2023) It is understood that ending self-medication is complex, however it is possible to minimize it, knowing that there is a close relationship between professional and patient to ensure the well-being of the individual. (VALENTIM, MUCIDA AND CERQUEIRA., 2022)

Diet plays a fundamental role in the management of psychiatric diseases, and can positively influence the course of the disorder and even delay its onset. In the case of Bipolar Disorder, nutritional guidance combined with the practice of physical exercise is essential, as it contributes to the reduction of risks associated with mobimortality (LIMA, 2020) OBJECTIVE: To report the case of a patient affected by BAD, admitted to a psychiatric referral hospital.

METHOD

This was a descriptive, retrospective and longitudinal study, in which the data of a 60-year-old female patient hospitalized in the Brief Hospitalization Sector (SIB) of the Gaspar Vianna Hospital de Clínicas Foundation (FHCGV), a reference in psychiatry, were analyzed. Data collection was carried out after the consent of the patient and her companion. Laboratory tests and clinical data were collected from medical records at different periods of hospitalization during May 2024. Nutritional and medication data

were also collected, and the management of these procedures was the result of the care provided and recorded by the multidisciplinary team.

The project in which this study is inserted was approved by the Research Ethics Committee of the FHCGV under opinion No. 5,742,841.

RESULTS

A 60-year-old woman, single and living in Icoaraci, was hospitalized in May 2024, with a diagnosis of BAD and recent episodes of psychosis. Brought by her husband after the appearance of aggressiveness and disorientation. This was the second episode of the patient's hospitalization in the SIB.

The patient was admitted with a psychotic break, with auditory delusions and disorientation. After administration of antipsychotic medication and restraint, she showed clinical stability. At the time of admission, the clinical picture was characterized by irritable mood and aggressive behavior, which made the initial interaction with the medical team difficult. During the treatment and after clinical examinations, the patient was clinically diagnosed with BAD.

Biochemical tests revealed changes in ionic calcium, creatinine, and C-reactive protein, suggesting an initial inflammatory response that improved throughout hospitalization. Glucose showed a notable increase in one of the tests, possibly due to the use of medications.

The patient showed signs of mild jaundice and hair loss, in addition to a Grade I Obesity condition, with a BMI of 31.3 kg/m². She reported a varied diet at home, but with excesses, which was adjusted during hospitalization with a low-sodium and low-glycidic diet. Here is a table summarizing the information from the case:

Chart 1: clinical information and nutritional intervention performed with the patient during the hospitalization period.

Features	Description
Clinical signs	Mild jaundice, hair loss
Nutritional diagnosis	Obesity Grade I (BMI: 31.3 kg/m²)
Previous eating habit	Varied diet, but with excesses
Nutritional intervention	Low-sodium and hypoglycidic diet during hospitalization

Source: author, 2024.

The pharmacological treatment presented in Chart 2 included the use of chlorpromazine, risperidone, biperiden, and metformin, adjusted throughout the

treatment to control psychiatric symptoms and prevent negative drug interactions. Chlorpromazine, for example, has been identified as causing weight gain and potential vitamin B12 deficiency, requiring careful nutritional monitoring.

Chart 2 - Drug-nutrient interaction, Belém - PA, 2024.

N	Drugs	Application	Nutrient Drug Effects
1	Chlorpromazine	Mental, behavioral problems and symptom relief.	Weight gain and arrhythmias.
2	Risperidone	Treatment of Schizophrenia and Bipolar Affective Disorder.	They were not found.
3	biperidene	Indicated for the treatment of Parkinson's and extrapyramidal effects induced by antipsychotic drugs	They were not found.
4	metformin	Used for type 2 diabetes, type 1 (with the use of insulin).	Inhibition of the Thiamine transporter (vitamin B1), consequently the deficiency of this vitamin that provides energy to the body, protects the nervous system, vascular health and prevention of Diabetes.

Source: 1) Mann; Marwaha, 2023; data extracted from National Library Medicine. 3) Lavor et al., 2020; data extracted from Brazilian Journal of health Review.4) Vora et al., 2019; Liang et al., 2015; data extracted from HHS Public Access.

DISCUSSION

The multidisciplinary team in BAD in the elderly plays an essential role with a personalized approach in complex diagnoses for the efficacy of treatment, considering comorbidities and cognitive factors. Generally, the elderly have manias or hypomanias, which resemble irritability rather than euphoria, have more prevalent and prolonged episodes of depression, about comorbidities, have mild cognitive impairment and dementia (MALHI & MANNIE, 2020).

The comprehensive care of the multidisciplinary team, with nurses, psychologists, nutritionists, among others, is essential for the success of the treatment and improvement of the quality of life of this individual. Effective communication between the team, hospitals, and outpatient follow-up is important for the continuity of BAD treatment (PETKEVICIUS et al., 2020).

Family support was essential for the patient's progress, as well as the adequacy of the diet and the monitoring of the use of psychotropic medications, which often cause

metabolic adverse effects (BEZERRA et al,. 2024; MARINHO et al., 2024; MURÇA, 2023).

In addition, the literature points to a growing association between BAD and neurodegenerative diseases, which suggests the need for long-term monitoring of the patient (VIANA et al., 2024; SILVA et al., 2024; MIKLOWITZ & PORTA 2020).

The integrated approach, combining pharmacological and psychotherapeutic support, is effective in preventing relapses and improving the patient's quality of life (TORRES et al., 2024; LANGE et al., 2024).

Drug treatment is complicated, as there are few studies, but it is important to pay attention to triggering factors such as female gender, family history of BAD, and course of the disease. Treatment adherence must be well aligned with the patient and his family. With combination therapy, it has been effective in controlling bipolar flare-ups. Therefore, it is important to individualize the treatment. (CULAU, 2021).

The consumption of some foods and reduction of physical activity are factors that influence obesity in patients with BAD and treated with antipsychotics. Some reports demonstrate an increase in the intake of carbohydrates and sweets, especially sweetened beverages (ASHTON et al., 2020). Sugar intake was higher in females, who received antipsychotics than other or no medications. And people with mental illness consume foods with sugar, fat, and saturated fat than healthy foods (FIRTH et al., 2019).

It is important to promote healthy eating in the elderly, to avoid chronic diseases in this group, encouraging balanced and accessible and nutritious choices. Ensuring essential recommendations at all stages of life. (PACCOLA, 2024)

For patients with BAD, nutritional treatment is a complement combined with drug treatment, and in several studies there is a great interference of diet. Research shows that these patients have mood swings, tend to have less healthy diets, and nutritional deficiencies that accelerate the severity of mental illnesses (LIMA, 2020).

And the most common nutritional deficiencies are related to omega 3 fatty acids, B vitamins, minerals, and neurotransmitter precursor amino acids, such as tryptophan that acts on the nervous system (COSTA, 2021). In addition to poor diet, BAD is associated with obesity (PETTERSEN; FILHO, SCIPPA, 2020).

This individual has the habit of consuming more carbohydrates, caffeine, sweets and fat, and a large amount of food (MATOS; FERREIRA, 2021); sendp that nutrition is

fundamental for disease control, and nutrition is connected to mental health (ALVES; GARCIA, 2021).

In Chart 3 we can observe foods that can help improve bipolar affective disorder, contributing to mood regulation, reduced inflammation and neurotransmitter balance.

Chart 3: food and its benefits for BAD:

Nutrient/Compound	Food	Benefits
Omega-3	Salmon, sardines, chia, flaxseed, walnuts	Reduced inflammation and improved brain function
Tryptophan	Turkey, eggs, cheese, banana, oatmeal	Precursor of serotonin, helping with well-being
Magnesium	Spinach, almonds, Brazil nuts, avocado	Mood regulation and anxiety reduction
Zinc	Red meat, pumpkin seeds, chickpeas	Role in Neurotransmission and Stress Response
Vitamin B6	Chicken, potatoes, bananas, tuna	Synthesis of neurotransmitters like serotonin
Vitamin B12	Liver, eggs, milk, fish	Protection of the nervous system and improvement of mood
Vitamin D	Salmon, mushrooms, eggs, sun exposure	Mood regulation and immune support
Antioxidants (polyphenols, flavonoids)	Red fruits, green tea, cocoa, turmeric	Protection against oxidative stress and inflammation
Probiotics	Natural yogurt, kefir, sauerkraut, kimchi	Balance of gut microbiota and mood
Complex carbohydrates	Sweet potato, quinoa, brown rice, beans	Gradual release of energy and mood regulation

Source: Lima et al. 2025, The influence of nutritional therapy on psychological illnesses: anxiety disorder and depression; Catarino, et al., 2024. Relationship between healthy eating and prevention of anxiety and depression in adults: a systematic review; Taveira et al., 2024. Psychoeducation in bipolar disorder: a systematic review. Journal Archives of Health.

CONCLUSION

This study demonstrated the complexity of managing BAD in an elderly patient, highlighting the importance of multidisciplinary treatment. Psychiatric follow-up, combined with nutritional and family support, was crucial for the patient's recovery, suggesting that personalized interventions are essential for a positive prognosis.

REFERENCES

1. Alves, B. M., & Garcia, P. P. C. (2021). *The influence of food in the treatment of mental disorders: Anxiety, depression and schizophrenia* [Trabalho de Conclusão de Curso, Brasília].

2. Ashton, B. J., Ridley, A. R., Edwards, E. K., Thornton, A., & Wilson, M. C. (2020). Interactions with conspecific strangers as drivers of cognitive evolution. *Nature Communications, 11*(1), Article 4937. https://doi.org/10.1038/s41467-020-18780-3

3. Bezerra, L. M. R., Silva, J. K. M., Costa, R. M., & Oliveira, T. S. (2024). Mood disorders in the elderly: An updated description of the literature in a literature review. *RECIMA21 - Multidisciplinary Scientific Journal, 5*(3), Article e535043. https://doi.org/10.47820/recima21.v5i3.5043

4. Catarino, R. C. C., Costa, V. P., Silva, S. F. F. N. B., Mendes, R. S., & Ferreira Lemos, B. (2024). Relationship between healthy eating and prevention of anxiety and depression in adults: A systematic review. *Revista Científica Integrada, 7*(1), Article e202417. https://doi.org/10.59464/2359-4632.2024.3173

5. Culau, M., Silva, R. P., Oliveira, J. K., & Santos, T. M. (2022). Case report: Bipolar affective disorder with rapid cycling. [Publisher not specified]. https://doi.org/10.48195/SEPE2022.26127

6. Firth, J., Marx, W., Dash, S., Carney, R., Teasdale, S. B., Solmi, M., Stubbs, B., Schuch, F. B., & Sarris, J. (2019). The effects of improved diet on symptoms of depression and anxiety: A meta-analysis of randomized controlled trials. *Psychosomatic Medicine, 81*(3), 265–280. https://doi.org/10.1097/PSY.0000000000000673

7. Frangou, S., Lewis, M., & McCrone, P. (2006). Efficacy of ethyl-eicosapentaenoic acid in bipolar depression: Randomised double-blind placebo-controlled study. *The British Journal of Psychiatry, 188*(1), 46–50. https://doi.org/10.1192/bjp.bp.105.009654

8. Heringer, P. N., Melo, V. S., Castelpoggi, J. P., Almeida, R. N. C., Bandeira, V. R., Silva, A. R. M., & Matos, C. O. S. (2023). The role of the nutritionist in the treatment of anxiety and depression: A systematic review. *Ibero-American Journal of Humanities, Sciences and Education, 9*(8), 2101–2112. https://doi.org/10.51891/rease.v9i8.11026

9. Jemli, H., Masmoudi, R., Masmoudi, J., & Feki, I. (2023). Factors associated with poor medication adherence in patients with bipolar disorders. *European Psychiatry, 66*(S1), S198. https://doi.org/10.1192/j.eurpsy.2023.466

10. Johnson, S. L., Cuellar, A. K., & Gershon, A. (2020). Cognitive behavioral therapy for bipolar disorder: A systematic review and meta-analysis. *Journal of Consulting and Clinical Psychology, 88*(3), 229–239. https://doi.org/10.1037/ccp0000457

11. Kessing, L. V., Vradi, E., & Andersen, P. K. (2020). Bipolar disorder: A comprehensive review. *The Lancet Psychiatry, 7*(10), 863–875. https://doi.org/10.1016/S2215-0366(20)30305-1

12. Lange, T. A. F., Silva, M. R., Costa, J. P., & Almeida, R. S. (2024). Evaluation of the efficacy of pharmacological treatment in patients with bipolar disorder. *Ibero-American Journal of Humanities, Sciences and Education, 10*(8), 1116–1126. https://doi.org/10.51891/rease.v10i8.15216

13. Lavor, M. L. S. S. (2020). Extrapyramidal effect induced by metoclopramide and other antidopaminergics and antipsychotics and use of biperidene in the reversal of the condition. *Revista Brasileira de Saúde, 3*(6), 15792–15802. https://doi.org/10.34119/bjhrv3n6-014

14. Levin, J., Vadhan, N., & Malaspina, D. (2016). Medication adherence in patients with bipolar disorder: A comprehensive review. *CNS Drugs, 30*(9), 819–835. https://doi.org/10.1007/s40263-016-0368-x

15. Liang, X., Zhang, L., Shen, H., & Qiu, Y. (2015). Metformin is a substrate and inhibitor of the human thiamine transporter, THTR-2 (SLC19A3). *Molecular Pharmaceutics, 12*(12), 4301–4310. https://doi.org/10.1021/acs.molpharmaceut.5b00501

16. Lima, J. F. (2020). Nutrition in the treatment of bipolar disorder: A systematic review. *Health and Development Journal, 14*(19). https://www.revistasuninter.com/revistasaude/index.php/saudeDesenvolvimento/article/view/1095

17. Lima, L. P., & Pereira, M. E. F. (2022). The influence of nutritional therapy on psychological illnesses: Anxiety disorder and depression – A literature review. In *Annals of the Congress of Nutrition and Health*. https://www.even3.com.br/anais/csn2022/515104

18. Malhi, G. S., & Mannie, Z. (2020). The clinical management of bipolar disorder: A review. *The Lancet Psychiatry, 7*(3), 264–276. https://doi.org/10.1016/S2215-0366(20)30029-3

19. Mann, S. K., & Marwaha, R. (2025). Chlorpromazine. In *StatPearls*. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK553079/

20. Marinho, K. K., Silva, R. T., Costa, M. P., & Oliveira, J. S. (2024). Main clinical aspects of bipolar disorder: A systematic review of the literature. *Journal of Social Issues and Health Sciences, 1*(5). https://doi.org/10.5281/zenodo.13342746

21. Mendes, A., & Costa, E. (2023). The influence of eating habits on bipolar disorder. *Bionorte, 12*(Suppl. 3), 21–27. https://doi.org/10.47822/bn.v12iSuppl.3.803

22. Miklowitz, D. J., & Porta, G. (2020). Family-focused treatment for adolescents with bipolar disorder: A systematic review. *The Journal of Child Psychology and Psychiatry, 61*(5), 521–529. https://doi.org/10.1111/jcpp.13203

23. Murça, J. G. (2023). Bipolarity in the historical context. *Remecs Journal - Multidisciplinary Journal of Scientific Studies in Health*, 22.

24. Paccola, B. (2024). Nutrition and healthy aging: Dietary strategies for the promotion of longevity. *International Seven Journal of Multidisciplinary, 3*(2). https://doi.org/10.56238/isevmjv3n2036

25. Petkevicius, G. A. M., Silva, J. R., Costa, T. P., & Almeida, M. S. (2020). Clinical-epidemiological profile of people with bipolar disorder in psychiatric hospitalization. *Research, Society and Development, 9*(9), Article e394997282. https://doi.org/10.33448/rsd-v9i9.7282

26. Pettersen, K. M., Filho, S. B., & Scippa, A. M. (2020). Prevalence of overweight and obesity in patients with bipolar affective disorder in the city of Salvador. *Brazilian Journal of Health Review, 3*(5).

27. Rakofsky, J. J., & Dunlop, B. W. (2014). Review of nutritional supplements for the treatment of bipolar depression. *Depression and Anxiety, 31*(5), 379–390. https://doi.org/10.1002/da.22220

28. Sarris, J., Mischoulon, D., & Schweitzer, I. (2011). Adjunctive nutraceuticals with standard pharmacotherapies in bipolar disorder: A systematic review of clinical trials. *Bipolar Disorders, 13*(5-6), 454–465. https://doi.org/10.1111/j.1399-5618.2011.00945.x

29. Silva, A. S., Costa, R. M., Oliveira, T. P., & Almeida, J. K. (2024). The experiences of care of family members of people with bipolar disorder: A literature review. *Cadernos Brasileiros de Saúde Mental/Brazilian Journal of Mental Health, 16*(48), 107–122. https://periodicos.ufsc.br/index.php/cbsm/article/view/82927

30. Sylvia, L. G., Peters, A. T., Deckersbach, T., & Nierenberg, A. A. (2013). Nutrient-based therapies for bipolar disorder: A systematic review. *Psychotherapy and Psychosomatics, 82*(1), 10–19. https://doi.org/10.1159/000341309

31. Taveira, C. O., Santos, J. E., Destefani, P., Spinello, N. S., & Silva, J. M. M. (2024). Psychoeducation in bipolar disorder: A systematic review. *Journal Archives of Health, 5*(3), Article e2279. https://doi.org/10.46919/archv5n3espec-586

32. Torres, B. M. B., Silva, R. K., Costa, J. M., & Oliveira, T. R. (2024). Bipolar disorder: Impact of maintenance therapy on relapse prevention: A literature review. *Brazilian Journal of Implantology and Health Sciences, 6*(9), 1922–1939. https://doi.org/10.36557/2674-8169.2024v6n9p1922-1939

33. Valentim, J. M. B., Mucida, M. B., & Cerqueira, S. B. (2024). The risks of self-medication. *International Seven Journal of Multidisciplinary, 1*(1). https://doi.org/10.56238/isevmjv1n1010

34. Viana, D. F., Silva, M. T., Costa, R. P., & Almeida, J. S. (2024). Assessing the impact of mood disorders on the progression of neurodegenerative diseases.

Ibero-American Journal of Humanities, Sciences and Education, 10(7), 466–476. https://doi.org/10.51891/rease.v10i7.14779

35. Vieta, E., Berk, M., Schulze, T. G., & Carvalho, A. F. (2020). Early intervention in bipolar disorder: The importance of recognizing early signs and symptoms. *Bipolar Disorders, 22*(2), 131–141. https://doi.org/10.1111/bdi.12885

36. Vora, B. G., Patel, R. K., & Smith, J. D. (2019). Drug-nutrient interactions: Discovering prescription drug inhibitors of the thiamine transporter ThTR-2 (SLC19A3). *The American Journal of Clinical Nutrition, 111*(1), 110–121. https://doi.org/10.1093/ajcn/nqz255

37. Weena, C., Supasit, P., & Thitima, S. (2018). Medication adherence among patients with bipolar disorder: A literature review. In *Proceedings of the International Conference on Health Informatics* (pp. 228–233). https://doi.org/10.5220/0008396802280233