

Case Report

Case report: Evaluation of suicide risk in severe major depressive disorder with psychotic symptoms*Relato de caso: Avaliação do risco de suicídio no transtorno depressivo maior grave com sintomas psicóticos***Gabriela Fukuyama Barbosa¹, Cristiane Cacossi Picarelli²**

Barbosa GF, Picarelli CC. Case report: Evaluation of suicide risk in severe major depressive disorder with psychotic symptoms / *Relato de caso: Avaliação do risco de suicídio no transtorno depressivo maior grave com sintomas psicóticos*. Rev Med (São Paulo). 2022 March-April;101(2):e-184948.

ABSTRACT: In addition to its classic symptomatology, Major Depressive Disorder (MDD) may go through single or recurring episodes of psychotic events marked by the presence of delusions and hallucinations, with contents which are frequently associated to negative and depressive ideas about death, ruin, guilt and deserved punishment. This condition is strongly linked to high suicide risks, constituting the main reason why it is necessary to diagnose and positively intervene as soon as possible in order to restore and preserve the person's life, meaning and quality of life. The case reported herein refers to a female patient with a current diagnosis of severe and recurrent MDD with psychotic episodes and high suicidal tendencies. This patient constantly presents depressed mood, frequent and easy crying, hypobulia, sleep disorders and devaluation of herself. Furthermore, her case occurs with strange dreams and sensations related to evil entities, along with persistent visual hallucinations and religious delusions of sin, excessive guilt and divine punishment. Due to the symptoms resistance to the initial pharmacological treatment, other possibilities of approach, conduct and differential diagnoses were discussed in parallel to a continual evaluation of the suicide risk.

Keywords: Major depressive disorder; Psychotic symptoms; Suicide risk.

RESUMO: Para além de sua sintomatologia clássica, o Transtorno Depressivo Maior (TDM) pode cursar com episódios únicos ou recorrentes de quadros psicóticos, marcados pela presença de delírios e alucinações cujos conteúdos associam-se frequentemente a ideias negativas e depressivas de morte, ruína, culpa e punição merecida. Esta condição está fortemente conectada a alto risco suicida, motivo pelo qual deve-se diagnosticar e intervir de maneira positiva o mais precocemente possível, a fim de que a vida, o sentido e a qualidade de viver do indivíduo possam ser restaurados e preservados. O caso relatado refere-se a uma paciente com diagnóstico atual de TDM grave e recorrente com sintomas psicóticos e alta intencionalidade suicida. Apresenta o humor constantemente deprimido, choro fácil e frequente, hipobulia, distúrbios do sono e sentimentos de menos-valia. Ademais, seu quadro cursa com sonhos e sensações estranhas relacionados a entidades malignas, assim como com alucinações visuais persistentes e delírios religiosos de pecado, culpa exagerada e punição divina. Frente à resistência dos sintomas ao tratamento farmacológico inicial, foram discutidas outras possibilidades de abordagem, conduta e diagnósticos diferenciais paralelamente à avaliação constante do risco de suicídio.

Palavras-chave: Transtorno depressivo maior; Sintomas psicóticos; Risco de suicídio.

1. Faculdade de Ciências Médicas e da Saúde da Pontifícia Universidade Católica de São Paulo (FCMS – PUC/SP), Sorocaba, SP. <https://orcid.org/0000-0001-5015-8496>. E-mail: gabi.fukuyama@gmail.com.

2. Faculdade de Ciências Médicas e da Saúde da Pontifícia Universidade Católica de São Paulo (FCMS – PUC/SP), Sorocaba, SP. <https://orcid.org/0000-0002-3422-8113>. E-mail: cristiane_picarelli@yahoo.com.br.

Corresponding author: Gabriela Fukuyama Barbosa. Rua Vicência Faria Verssagi, 399, Apt. 51, bloco B, Jardim Emília, Sorocaba, SP. CEP: 18031-080. E-mail: gabi.fukuyama@gmail.com.

INTRODUCTION

Major Depressive Disorder (MDD) is the classic representation of the groups of depressive disorders according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5)¹. It is estimated that the global prevalence of this disorder is on average 2.49%, which represents about 185,152,619 affected individuals, according to information presented by the Global Health Data Exchange (GHDx – IHME, Washington) data platform in the year 2019. The prevalence of MDD in Brazil is around 3.33%, representing about 6,950,788 people affected by this disorder².

According to the diagnostic criteria specified by the DSM-5, MDD is characterized by changes in normal functioning for at least two weeks, notably marked by a prevalence of: (i) depressed mood for most of the day; (ii) a marked decrease in interest or pleasure in all or almost all activities, including those that previously brought pleasure; (iii) significant weight loss/gain without dieting, or reduced/increased appetite; (iv) insomnia or hypersomnia; (v) agitation/psychomotor retardation; (vi) fatigue or loss of energy in the absence of physical activity; (vii) feelings of worthlessness or excessive or inappropriate guilt; (viii) impaired ability to think or concentrate, or indecision; (ix) recurrent thoughts of death, recurrent suicidal ideation without a specific plan, a suicide attempt or specific plan to commit suicide. These presentations, with the exception of weight change and suicidal ideation or planning, must be present every or almost every day, representing significant suffering or impairment of social, professional or other important areas of the individual's life. Finally, this condition should not be associated with physiological effects of substances or other medical conditions, whether organic or psychiatric, such as grief, schizophrenia spectrum disorders or bipolar disorder (excluding possible previous manic or hypomanic episodes). For diagnosis, the patient must present at least five of the aforementioned symptoms (i - ix), among which (i) or (ii) must necessarily be present¹.

It is not uncommon for MDD to occur with single or recurrent episodes of psychotic characteristics, respectively being classified as F32.3 (Severe depressive episode with psychotic symptoms) and F33.3 (Recurrent depressive disorder, current severe episode with psychotic symptoms) by the International Statistical Classification of Diseases and Related Health Problems (ICD-10)³. In these cases the individual presents episodes of delusions and/or hallucinations with negative and depressive content in addition to the symptoms described above, often marked by ideas of death, ruin, guilt and deserved punishment^{4,5}.

This case report explores the need for a greater understanding of MDD with psychotic characteristics due to its considerable relationship with an increased risk of suicide^{4,7}. In this sense, it is extremely important to be able

to identify and distinguish this disorder from its possible differential diagnoses, as psychotic episodes can also be present in several other psychiatric conditions such as schizophrenia, schizoaffective disorder, bipolar disorder, post-traumatic stress disorder, certain personality disorders and delusional disorders⁸.

Therefore, the correct diagnosis enables a more adequate and specific therapeutic approach for each presentation, as well as enabling better exploration of possible suicidal ideations or plans in progress. Accordingly, the health team and the patient's support network can positively intervene as soon as possible so that life, the meaning and quality of living can be restored and preserved as in the pre-morbid period.

Upon signing the Informed Consent Form (ICF), the participant gave voluntary authorization for the information recorded in medical records to be used in this study. Furthermore, this production was submitted for ethical review and approved by the Ethics and Research Committee of the Faculty of Medical Sciences and Health of the Pontificia Universidade Católica (CAAE 53665221.1.0000.5373).

CASE REPORT

Female patient, 44 years old, married, Catholic, born in Sorocaba, São Paulo, Brazil, living in and resident in Votorantim, São Paulo, Brazil, currently unemployed.

The onset of symptoms was reported 8 months ago (August/2020) after conflicting and inharmonious episodes at work, from which her husband asked her to leave. According to her husband's report, she "*appeared to be lost*" during the last few months preceding her dismissal from this job, in addition to "*not completing the tasks she started, both at work and at home*". From this fact, he reports that his wife was slowed down and that there were several episodes in which she "*stopped in front of the bathroom wall and kept staring...*". The patient reports the occurrence of a dream, which she believes to have been in fact real, in which the Devil said that she would be the cause of the end of the world, and that in the end she was transformed into the Devil himself. From that episode on, she started to sense a rotten taste and smell in her house, which is why she stopped eating for 10 days, with the intention of taking her own life. Her husband then took her to medical care because of this first suicide attempt by food deprivation.

In the same week during a non-consensual visit to the family farm, as she did not want to leave the room and see other people, her husband reports that she suffered something characterized as an "outbreak", in which she often repeated the word no and told people to keep away from her. When asked about this episode, the patient reports that the Devil had incorporated himself into her and that days later it still occupied her body. Other episodes similar

to this one occurred later; the patient associates them with bad news related to the pandemic and visits to the farm, specifically when she goes to the bathroom, in which she refers to seeing the Devil ripping out her soul through the tiles.

Her husband reports that he notices his wife very quiet during the day, not communicating for long periods, with depressed mood, frequent crying and an aversion to social contact. The patient used to do physical exercise before, but at the moment she says that she no longer feels like doing them, or other daily activities. The husband reports that she has had a significant loss of weight since the onset of symptoms, despite not being able to estimate accurately. The patient reports sleep disturbances, nightmares, insomnia and non-restorative sleep.

She reports feeling a deep sadness and anguish that worsen at night, a period in which she reports having visions of skulls in her eyes when she looks in the mirror, "*as if she saw death*". Thoughts of excessive guilt related to the death of the father, the pandemic, the recent increase in the price of gasoline, and everything that is bad and negative in the world are also prevalent. She believes that the bad things which happen in her family are also her fault. She associates these bad events with the "sins" she had committed during her life, such as feelings of "*jealousy, envy, falsehood and ingratitude*", so that her current situation is a form of pity or punishment. She often asks why other people could be happy, and she couldn't, which she characterizes as envy. She says that this feeling of guilt has always been with her, but that it is currently more intense. She has strong feelings of worthlessness, feels inferior to other people, is not happy with her appearance or with her choices, which has at times been a reason for intrigue between the couple, as the spouse is jealous of other people.

Four months ago, she committed a second suicide attempt by trying to hang herself with a rope in the shower, which gave way from the weight. The act had apparently been scheduled, as the patient had even previously reported during consultations that she was thinking about hanging herself, but that something, which she did not know how to say, was preventing her. This episode contributed to reinforce her feelings of remorse and guilt for not having been able to carry out the act.

Then just over a month ago she had her third suicide attempt at night, this time through ingesting poison (lead), with this episode also being planned in advance. She waited for everyone to sleep before performing the act, being rescued by her husband in the morning of the next day and taken to the emergency room.

Facing an absence of improvement in her symptoms, 15 days ago she manifested high suicidal intention in a consultation, with well-structured ideation and planning of the next attempt: by drowning in a river which runs through the site to where the family planned to go during the the following weekend.

As for her personal morbid history, she mentions previous depressive episodes of lesser severity 10 years ago after the death of her father and during the puerperium of her second child. She was always active, communicative, and had good interpersonal relationships.

She attended the Psychosocial Care Center (CAPS) after a treatment period with psychiatrists from the private network, administering Venlafaxine 150 mg (1 pill), Aripiprazole 15 mg (½ pill) and Rivotril 2.5 mg/ml (10 drops/night), no response. Medication adjustment was performed with an increase of Venlafaxine and Aripiprazole, in addition to hospitalization in a psychiatric hospital bed as a protective measure against the high suicidal intention manifested in consultation. She evolved with an apparent improvement in suicidal ideation, but claimed not to notice significant improvement in other symptoms: feelings of guilt, easy crying, depressed and introspective mood persisting, as well as psychotic symptoms related to skull visions and their relationship with the end of the world.

Upon mental status examination, the patient was lucid, active and collaborative. She wore appropriate clothes for the service, preserved hygiene, and hair messy. Her head was down, hypomimic, looking empty and lost in space. She had overall preserved attention, and preserved autopsychic and allopsychic orientation. Her sense-perception was unchanged at the consultation time and she had overall preserved memory; hypothyroid mood, marked by feelings of guilt and deep sadness. Adequacy and normal modulation of affect. Hypobulia and present self-destructive impulsive acts (suicidal planning). Psychomotor slowing, without other psychomotoricity changes. Slowed thinking (increased time gap between questions and answers), linear, with depressive content of ruin and guilt. She related the presence of delusions of ruin, guilt and self-accusation. Unchanged language (good vocabulary, adequate voice tone and speech rate). She said little, only responded when asked. Decreased valuation of herself (insecurity and low self-esteem). Normal intelligence. Partial criticism of her symptoms.

DISCUSSION

In addition to the clear presentation of all diagnostic criteria for MDD by the DSM-51 in the case presented herein, the severity of the psychotic symptoms manifested by the patient is noteworthy, especially the exaggerated feelings of guilt, shame, self-accusation and deserved punishment. A study conducted in 2019 analyzed the impact of these delusional thoughts on the suicide risk rate in individuals with psychotic unipolar depression, and concluded that patients with strong delusions of guilt are more vulnerable to suicidal ideation and suicide attempts because they are unable to think logically and control these conceptions⁵. According to the aforementioned work, such thoughts are intensely related to intolerable suffering,

weakened self-esteem and psychic fragmentation; a condition which is also recognized by the psychache neologism when added to a turbulent and apparently endless emotional experience, a distressing feeling of being trapped within oneself and impression that life itself has collapsed⁹.

Thus, delusions among patients with unipolar depressive disorders are identified as one of the most important predictors of suicide, which is not only seen as an escape for life problems, but also for psychotic experiences, for psychological pain and intense anxiety⁴.

One can also identify a certain altruistic character of suicide in the case reported herein, as reported by Fredriksen et al.⁴, in which there is the intention to save those around them from a disastrous future or free them from the burden that the individual feels he/she is for other people, as he/she deeply blames themselves for experiences of loss and for the feeling of constantly hurting or harming the family's life. The patient presented herein is convinced that by putting an end to her life, the pandemic will consequently end, as well as other adversities that her family and the world are experiencing.

The prevalence of suicide attempts during major depressive episodes with psychotic features is 16.9%, and it is estimated that these individuals are about 5 times more likely to attempt and commit suicide than those with MDD without psychotic symptoms^{5,10}. Furthermore, the case of the presented patient is of great concern due to her previous history of several suicide attempts, which increases the risk by 30 to 40 times that future attempts will be completed when compared to the respective risk in the general population⁵.

The risk of suicide will remain high in these patients until there is no remission of the depressive episode and related psychotic symptoms, considering that suicidal behavior is extremely rare during euthymia or remission phases⁷. In this sense, attention should be paid to patients with similar cases to the one presented here regarding a possible omission of suicidal ideations, possibly due to the negative experience of previous psychiatric hospitalization, since the aforementioned improvement in suicidal thoughts is inconsistent with the evolution of their depressive and psychotic symptoms, which showed no clear improvement.

In analyzing the content of delusional thoughts, Hecker et al.¹¹ found significant correlations between demonic possession beliefs and severe depressive and psychotic symptoms, feelings of shame and guilt, and especially post-traumatic stress disorder. In that study, the most frequently reported symptoms by patients with this type of thinking were: the feeling that an evil spirit had entered their body and replaced their soul (85%), and the occurrence of strange dreams with the spirit (80%), as described in the patient's history of this report.

Patients with depressive disorders often present sleep disturbances, being characterized by superficiality, numerous interruptions and the involvement of nightmares¹².

Akkaoui et al.¹³ point to frequent nightmares as important predictors of suicide risk in patients with MDD, with higher suicidal ideation and behavior rates when compared to people with the same condition without the occurrence of nightmares.

Despite the current diagnosis of unipolar MDD with current severe episodes with psychotic symptoms, Dubovsky et al.⁸ point to bipolarity as a strong predictor of psychosis in the course of mood disorders. It has been reported that depression-related psychotic symptoms are more frequently associated with bipolar than unipolar depressive episodes, as well as the occurrence of non-auditory hallucinations, such as those experienced by the patient in this case. Visual hallucinations tend to occur more frequently in bipolar than unipolar depressions, as well as olfactory and gustatory hallucinations⁸. However, the diagnostic hypothesis of bipolar affective disorder was excluded in the case presented herein due to the apparent absence of previous mania or hypomania episodes; nevertheless, it is necessary to constantly monitor symptoms associated with a possible manic turn in the future. Still regarding this question, it is interesting to investigate this patient's previous depressive episodes in greater depth, especially the aforementioned postpartum depression of the second child, since postpartum non-psychotic affective disorders are often described as important predictors of the bipolar disorder spectrum¹⁴.

There is a severe depressive and psychotic condition resistant to initial psychopharmacotherapy in the described case, usually consisting of a combination of antidepressant (e.g., fluoxetine, venlafaxine, sertraline) and antipsychotic drugs (such as olanzapine), since monotherapy with antidepressants is not indicated as it is considered insufficient for an effective regression of symptoms. If combination therapy with SSRI antidepressants is not satisfactory, switching to tricyclic antidepressants should be considered⁸.

Electroconvulsive therapy (ECT) is highly recommended as a therapeutic approach for severe depressive episodes with psychotic symptoms, especially in patients who are partially or totally unresponsive to medication, so that it can save long periods of unnecessary suffering and reduce morbidity and risk of suicide associated with the disorder^{8,15}. However, the lack of coverage of ECT by the Unified Health System (*SUS*) is an important limiting factor for recommending this treatment by health professionals, so that the population that has an indication for this resource has to solely rely on university, philanthropic, or private services. The response rate to ECT in mood disorders is estimated at around 90%, being even more effective than the use of antidepressant drugs¹⁵. However, due to the immediate unavailability of ECT and the refractoriness of these cases to pharmacotherapy, using combined therapy can be complemented by introducing lithium carbonate⁸.

Finally, it is worth discussing the impacts of the COVID-19 pandemic on mental health. Unemployment, the feeling of uncertainty, social isolation measures, the growing number of deaths and human suffering associated with the pandemic scenario are known to be potential burdens for mental health, which can act as stressors that trigger depressive and anxiety episodes. The patient described in this case report states that negative information related to the pandemic are triggers for her crises, and that she has recently dreamed of many people dying, which composes a picture of extreme psychological distress. Thus, it is necessary to think critically about the possibly problematic and harmful exposure to media resources in the current context^{16,17}.

Due to the lack of response to the initial treatment proposed to the patient before the start of follow-up at the CAPS and the difficulty of the family's financial resources, it was decided to gradually change medications. At the moment, the patient is undergoing medication adjustment using 150mg Amitriptyline and 20mg Olanzapine, with good response. She is showing significant improvement in her depressive condition, a reduction in psychotic

symptoms and she is denying suicidal ideation or planning.

CONCLUSION

Extensive knowledge of MDD with psychotic characteristics coupled with a detailed and careful clinical investigation is extremely relevant for achieving early diagnosis and interventions, especially with the objective of containing a high suicidal intention associated with the condition and providing remission of depressive symptoms and psychotic determinants of intense physical, mental and social suffering. In this sense, health professionals must be constantly aware of recurrences, unpromising psychopharmacotherapy developments and/or possible differential diagnoses in order to understand, identify and act on the particularities related to each individual. Finally, it is of great value that the care itself exerts a therapeutic effect on the patient by welcoming and comprehensively listening to their reports, complaints and anxieties which may eventually bring disturbances to their quality of life and existential restlessness.

Authors' contributions: *Barbosa GF* – Responsible for writing the written text, introduction, case report, discussion and conclusion. *Picarelli CC* – Psychiatrist, Work Advisor. Pre-submission guidance, review and correction.

REFERENCES

- American Psychiatric Association. DSM-5: manual diagnóstico e estatístico de transtornos mentais. 5a ed. Porto Alegre: Artmed; 2014.
- Institute for Health Metrics and Evaluation. Global Health Data Exchange. 2019 [cited 2021 Mar 28]. Available from: <http://ghdx.healthdata.org/gbd-results-tool?params=gbd-api-2019-permalink/ed4c3945cdb3652c4be2a0db79b1093c>.
- Organização Mundial da Saúde. CID-10 - Classificação Estatística Internacional de Doenças e Problemas Relacionados à Saúde. 2006 [citado 28 mar. 2021]. Disponível em: <http://www.datasus.gov.br/cid10/v2008/cid10.htm>.
- Fredriksen KJ, Schoeyen HK, Johannessen JO, Walby FA, Davidson L, Schaufel MA. Psychotic depression and suicidal behavior. *Psychiatry*. 2017;80(1):17-29. doi: 10.1080/00332747.2016.1208002.
- Gournellis R, Efstathiou V, Yotsidi V, Tournikioti K, Papazahos C, Ferentinos P, Douzenis A, Michopoulos I. Guilt delusional beliefs increase the risk of suicidal attempt in elderly unipolar psychotic depressives. *J Nerv Ment Dis*. 2019;207(1):29-33. doi: 10.1097/NMD.0000000000000913.
- Gournellis R, Tournikioti K, Touloumi G, Thomadakis C, Michalopoulou PG, Christodoulou C, Papadopoulou A, Douzenis A. Psychotic (delusional) depression and suicidal attempts: a systematic review and meta-analysis. *Acta Psychiatr Scand*. 2018;137(1):18-29. doi: 10.1111/acps.12826.
- Zalpuri I, Rothschild AJ. Does psychosis increase the risk of suicide in patients with major depression? A systematic review. *J Affect Disord*. 2016;198:23-31. doi: 10.1016/j.jad.2016.03.035.
- Dubovsky SL, Ghosh BM, Serotte JC, Cranwell V. Psychotic depression: diagnosis, differential diagnosis, and treatment. *Psychother Psychosom*. 2021;90(3):160-177. doi: 10.1159/000511348.
- Botega NJ. Crise suicida - avaliação e manejo. Porto Alegre: Artmed; 2015. p.161-89.
- Souery D, Zaninotto L, Calati R, Linotte S, Sentissi O, Amital D, Moser U, Kasper S, Zohar J, Mendlewicz J, Serretti A.. Phenomenology of psychotic mood disorders: lifetime and major depressive episode features. *J Affect Disord*. 2011;135(1-3):241-50. doi: 10.1016/j.jad.2011.07.027.
- Hecker T, Barnewitz E, Stenmark H, Iversen V. Pathological spirit possession as a cultural interpretation of trauma-related symptoms. *Psychol Trauma*. 2016;8(4):468-76. doi: 10.1037/tra0000117.
- Fredriksen KJ, Schaufel MA, Johannessen JO, Walby FA, Davidson L, Schoeyen HK. Preventing suicide among psychiatric inpatients with psychotic depression. *Psychiatr Q*. 2020;91(1):223-36. doi: 10.1007/s11126-019-09677-6.
- Akkaoui MA, Lejoyeux M, d'Ortho MP, Geoffroy PA. Nightmares in patients with major depressive disorder, bipolar disorder, and psychotic disorders: a systematic review. *J Clin Med*. 2020;9(12):3990. doi: 10.3390/jcm9123990.

14. Liu X, Agerbo E, Li J, Meltzer-Brody S, Bergink V, Munk-Olsen T. Depression and anxiety in the postpartum period and risk of bipolar disorder: a Danish Nationwide Register-Based Cohort Study. *J Clin Psychiatry*. 2017;78(5):e469-e476. doi: 10.4088/JCP.16m10970.
15. Shiozawa P, Netto G, Cordeiro Q, Ribeiro R. Eletroconvulsoterapia para o tratamento de depressão psicótica refratária em paciente com desnutrição grave: estamos esquecendo a ECT? *Rev Debates Psiquiatr*. 2014;6–10.
16. Bendau A, Petzold MB, Pyrkosch L, Mascarell Maricic L, Betzler F, Rogoll J, Große J, Ströhle A, Plag J. Associations between COVID-19 related media consumption and symptoms of anxiety, depression and COVID-19 related fear in the general population in Germany. *Eur Arch Psychiatry Clin Neurosci*. 2021;271(2):283-91. doi: 10.1007/s00406-020-01171-6. Erratum in: *Eur Arch Psychiatry Clin Neurosci*. 2021;271(7):1409.
17. Burhamah W, AlKhayyat A, Oroszlányová M, AlKenane A, Almansouri A, Behbehani M, Karimi N, Jafar H, AlSuwaidan M. The psychological burden of the COVID-19 pandemic and associated lockdown measures: Experience from 4000 participants. *J Affect Disord*. 2020;277:977-985. doi: 10.1016/j.jad.2020.09.014.

Submitted: 2021, April 27

Accepted: 2021, December 09