ABSTRACT: Objective: To describe a case of Catatonic Schizophrenia in a young man. Methodology: The case report is observational in nature and was approved by the ethics committee of a public institution in Alagoas. The case was followed up at the Dr. Alberto Magalhães Mental Health Outpatient Clinic, part of the Portugal Ramalho School Hospital complex. The patient was recruited through an active search and informed, as was his guardian, about the information relating to the research. The signed authorization was requested by the researchers through an interview based on the principles of medical consultation, with all the students and one of the supervisors present. A secondary source of data was consulted and clinical information on admission, hospitalization and discharge summaries recorded in medical records reviewed at the hospital were used. Case Report: Male patient, 28 years old, single, no children. Accompanied by his mother who reports episodes of recent “outbreaks”, having invaded churches, establishments and destroyed property. Approximately 15 days ago, he started not bathing and not eating, accepting only water. Discussion: The previous diagnosis of schizophrenia strengthened the main diagnostic hypothesis of a catatonic state related to schizophrenia. There was marked impairment of mental, physical and social integrity, since the patient did not eat properly, had impaired personal hygiene, inadequate posture and attitude, with motor activity based on stereotypes and mannerisms, as well as catatonic rage, stupor, negativism and automatic obedience. Conclusions: Therefore, managing schizophrenia, and being aware of the various presentations, enables quality care, providing dignified well-being for the individual.

KEY WORDS: Mental Disorders; Other Psychotic Disorders; Schizophrenia. Catatonic.

RESUMO: Objetivo: Descrever um caso de Esquizofrenia Catatônica em jovem. Metodologia: O relato de caso é de caráter observacional e foi aprovado pelo Comitê de ética de uma Instituição Pública de Alagoas. O caso foi acompanhado no Ambulatório de Saúde Mental Dr. Alberto Magalhães inserido no complexo do Hospital Escola Portugal Ramalho. O paciente foi recrutado por busca ativa e informado, assim como a sua responsável, acerca das informações relativas à pesquisa. A partir da autorização assinada, que foi solicitada pelos pesquisadores através de entrevista baseada nos princípios de consulta médica, estando presente todos os orientandos e um dos orientadores. Realizou-se consulta de fonte secundária de dados e utilização das informações clínicas de admisão, internação e resumo de alta, registrados em prontuários revisados no Hospital, cuja identificação do participante permaneceu resguardada. Relato de Caso: Paciente sexo masculino, 28 anos, solteiro, sem filhos. Acompanhado pela mãe que relata episódios de “surtos” recentes, tendo invadido igrejas, estabelecimentos e destruído patrimônios. Refere ainda agitação psicomotora e agressividade. Apresenta discurso incompreensível e indiferente às perguntas realizadas. Por vezes, ficando em silêncio e inerte. Outras, com solilóquio e mudança no tom da voz. Não aceitava medicações, estava inquieto e saía diversas vezes de casa com dormomania. Aproximadamente há 15 dias, começou a não tomar banho e ficar sem comer, aceitando apenas água. Discussão: O diagnóstico prévio de esquizofrenia fortaleceu a principal hipótese diagnóstica de estado catatônico relacionado à esquizofrenia. Nota-se que houve acometimento acentuado das integridades mental, física e social, uma vez que o paciente não se alimentava corretamente, possuía higiene pessoal prejudicada, postura e atitude inadequadas, com atividade motora baseada em estereotipias e manierismos, além de furor catatônico, estupor, negativismo e obediência automática. Conclusões: Portanto, manejar a esquizofrenia, e ser conhecedor das variadas apresentações, possibilita assistência de qualidade, proporcionando um bem-estar digno ao indivíduo.

PALAVRAS-CHAVES: Transtornos Mentais; Transtornos Psicóticos; Esquizofrenia. Catatonia.
INTRODUCTION

Schizophrenia is a chronic mental syndrome characterized by being a psychotic disorder that results in neurodevelopmental deficits and difficulties in the individual’s social sphere, this impairment in functioning skills being a primary component of schizophrenia. Symptoms commonly appear at the end of adolescence in men and in adulthood in women, with a prevalence of around 1% worldwide. From this point of view, it is interesting to highlight the possibility of the onset of psychosis in other less prevalent age groups, a condition that is more common in men and, the earlier it occurs, the worse the patient’s prognosis will be, in addition to the correlation with genetic and neurobiological risk factors.

To characterize this pathology, a duration of more than 1 month is required (or less, if treated early), and two or more of the following diagnostic criteria are essential: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior and negative symptoms, such as affective blunting, social isolation, diminished emotional expression. Among the above, it is mandatory that at least one of the symptoms be delusions, hallucinations or disorganized speech. In addition, the functional and social impairment must be continuous for at least 6 months. Another fundamental factor is to exclude organic causes or the use of psychoactive substances to justify this condition.

According to the ICD-10, schizophrenia is divided into subtypes, with their respective particularities. Thus, there is paranoid schizophrenia, characterized by delusional ideas and alterations in sensory perception, mainly with auditory hallucinations; hebephrenic schizophrenia with symptoms of disorganization and puerility; residual schizophrenia with marked negative symptoms after the disease has progressed; simple schizophrenia with progressive eccentricity of behavior and catatonic schizophrenia, which has psychomotor disturbances such as hyperkinesis and stupor as its core, as well as altered will.

The predominant hyperkinesia and stupor in catatonic schizophrenia reveal the antagonism of psychomotor disorders. While hyperkinesia presents a deflagrated increase in the execution of bodily movements, stupor is manifested by the absence of psychomotor activity, where it has no relationship with the environment.

Some studies on schizophrenia have linked catatonia to other motor abnormalities, such as parkinsonism and dyskinesia. Depending on the analysis, there may be a conflict in direction, making it difficult to explain psychomotor symptoms in psychiatric illness, the main difference between which and extrapyramidal syndromes is the administration of antipsychotics.

There are also the negative characteristics of catatonia, which are demonstrated by the contorted posture and resistance to stimuli when contact is attempted through the examiner. The more pressure they are put under, the more uncomfortable they become, which can evolve into aggression, or even “nonsense talk”, typical of stop-answers, whose questions are misunderstood by the patient, resulting in answers that are out of context.

Therefore, although challenging, understanding catatonic schizophrenia is essential in order to provide efficient care. Medications and complementary measures are essential in order to optimize the patient’s quality of life, as well as sociability with the family and community.

In this sense, the aim of this study was to describe a case of catatonic schizophrenia in a young man and to improve knowledge about schizophrenia, especially the catatonic subtype; to bring scientific knowledge to light and provide human beings with an understanding of the disorder, subsidizing therapeutic conduct and treatments. It is also believed that the study could be the basis for further research, as there is still a need for further studies on the subject.

MATERIAL AND METHOD

This case report is an observational, single-arm study. It was carried out at the Dr. Alberto Magalhães Mental Health Outpatient Clinic (PISAM), part of the Portugal Ramalho School Hospital (HEPR) complex. Data collection began after approval by the Research Ethics Committee of the State University of Health Sciences of Alagoas (UNCISAL), with approval number 6.204.396.

The sample consisted of one (01) participant. The volunteer who took part in the study was recruited through an active search at the institution’s PISAM outpatient clinic, during one of his return medical assessment appointments, and was accompanied by his mother-in-law.

The patient and their guardian were informed of the information about the study. Once their permission to participate had been confirmed, they were given two copies of the informed consent form (ICF) so that they could read and understand its content and clarify any doubts. Only then, with the maternal parent signing the form (in two copies), since the participant is a guardian, was the individual’s participation in the research formalized.

At no point in this research was it pertinent to use the identification data of the subject taking part in this study, in accordance with resolution 466/12 of the National Health Council (CNS) of the Ministry of Health. No inclusion or exclusion criteria were applied.

Authorization was requested by the researchers through an interview based on the principles of medical consultation. A secondary data source was consulted and clinical information on admission, the course of hospitalization and the discharge summary, recorded in medical records reviewed at the Portugal Ramalho School Hospital, was used.

CASE REPORT

Identification: Male patient, 28 years old, single, no children, incomplete primary education, never worked, income from BPC Loas, born in Palmeira dos Índios and from Maceió, evangelical. He lives with his mother.

Admission to the Psychiatric Emergency Department (20/07/2021)
The patient was accompanied by his mother, who reported recent episodes of “outbursts”, having broken into churches, establishments and destroyed property. He also reports psychomotor agitation and aggression. Denies drug use. Taking Haldol 5mg VO, Phenergan 25 mg VO, Amplectil 100 mg VO and Diazepam 10 mg VO.

Mental examination: Good contact, not very collaborative; mood not very modulated, congruent affect. Other characteristics impaired due to sedation as a result of the journey. Diagnostic hypothesis: Not reported. Conduct: Hospitalization.

Medications: 02 ampoules of Haldol Decanoate IM; 01 ampoule of Haldol and Fenergam IM. Prescription: Phenergan 25 mg (1-1-1) VO; Risperidone 3mg (0-1-1) VO; Carbamazepine 200 mg (2-2-2) VO; Neozine 100 mg (0-0-1) VO

Personal history and life curve:

First-born son of an offspring of two children, unplanned pregnancy, without complications, with a normal, full-term birth. According to his mother, he walked at around one year old and started speaking at 10 months. She had no learning difficulties and got good grades; however, she had been involved in fights at school since she was a child.

She lived with her mother during her childhood and had no contact with her father. When she was 12, her mother lost custody because her partner at the time was aggressive towards them. After that, the patient started living with her uncle, who calls him a “demon”, because he had to help with the housework. She currently has a conflictual relationship with her father, who calls him a “demon”, because he started to become “depressed, agitated and aggressive”.

The mother reports that the patient suffered constant verbal and physical abuse from various family members and “grew up without affection”. She also says that his grandmother wouldn’t let him go out and forbade him to study because he had to help with the housework. He currently has a conflictual relationship with his father, who calls him a “demon”, because he spends the day in his room watching or reading evangelical books and doesn’t work.

In his first outbreak, at the age of 20, he walked from Palmeira dos Índios to Arapiraca and spent three days without eating or bathing. His mother says that his behavior had changed a month ago. He didn’t accept medication, was restless and left the house several times with dromomania, which is characterized as an uncontrollable and morbid impulse to wander around, to leave the house. Approximately 15 days ago, he started not bathing and not eating, accepting only water. This past week, he became insomniac and heteroaggressive. He says that on July 18 (two days before his hospitalization), he went to church in his underwear, during mass, and broke images of Jesus Christ. He also damaged water pipes and broke into houses in the neighborhood, knocking down doors, as well as the PSF and other establishments.

Descriptive mental examination

We find the patient lying on the floor of the ward and hear him call out, but he doesn’t answer. Then I ask him his name and he says it correctly. Invited to talk, he accepts and is taken to the ward. His gait is unchanged. We explained that we would be his doctors and he replied: “They’re not doctors, they’re doctors”. When he got to the room, he sat down in a secluded spot. He was wearing hospital clothes (a black blouse with a spider on it and green shorts), green Hawaiian sandals, short hair and beard, dirty nails, ocular hyperemia with deviation of the right eye (divergent strabismus), thin and with lesions on his elbows and knees. He also had ketone breath.

For most of the interview, the patient’s gaze remained fixed and inert in a certain position, while at other times he had impulsive and intimidating attitudes. He was suspicious, paying attention to his surroundings, as well as putting objects in the room into his speech, such as the television. At first, he answered correctly where he was and who he was with; however, as it went on, he came up with incoherent sentences and new words, with the recurring theme of demons and the heart. He is not very cooperative and, when he does interact, he is slow to respond. Sometimes he stops speaking during a sentence. Patient shows periods of paralysis and returns unexpectedly, with a change in tone of voice and mumbling.

When talking to interviewers, he gesticulates with his hands. And when in soliloquy, he has a repetitive attitude with his left hand making linear movements on his right forearm. Later, he says that he has more than 200 voices and that he is more than one person. When asked about the saying “son of a fish”, he replied: “kill one, kill all, whoever you kill goes to hell”. He was easily irritable and made hostile movements. It was not possible to carry out memory and intelligence tests.

Psychiatric summary

- Appearance: impaired self-care;
- Attitude: negative and hostile;
- Vigil Consciousness: alert;
- Attention: hypervigilant and hypotenous;
- Will: impulsive acts, negativism, sitiophobia;
- Memory: could not be assessed. Apparently preserved;
- Thought: Course: interrupted; Form: disaggregated;
- Content: delusional ideas; mystical-religious;
- Judgement of reality: simple, unsystematized delirium;
- Sensory perception: auditory hallucination;
- Language: mussitation, neologism, soliloquy, latency of responses;
- Intelligen: could not be assessed;
- Psychomotricity: stereotypy, stupor;
- Affect: affective hypomodulation; impoverished;
- Mood: irritable;
- Orientation: oriented in space and time;
- Consciousness of the Self: altered identity and unity;
- Foresight: absent.

**Conduct:** Haldol 5mg (1-0-1) VO; Promethazine 25 mg (1-0-1) VO; Diazepam 10 mg (1-1-1) VO; Neozine 100 mg (0-0-1) VO; Continuous supervision of food and fluid intake

**July 27, 2021 (7 DAY)**

Patient found lying in the same position, apparently uncomfortable. He answers the call and agrees to talk. He is wearing the same clothes as on the first day of hospitalization. He doesn’t answer the questions asked, remains silent most of the time, with a fixed, immobile gaze, varying with stereotyped forearm and hand movements when soliloquizing. When he sees a piece of furniture in the room, he asks if it’s a tape recorder. Patient has an intimidating attitude, stands up and slaps his hands on the table and asks if the interviewers are afraid. Was offered water at the beginning of the interview, but only at the end replied “if I take water, I’ll take your heart”.

**Conduct:** Haldol 5 mg (1-0-1) VO; Promethazine 25 mg (1-0-1) VO; Diazepam 10 mg (1-1-1) VO.

**August 02, 2021 (13 DAY)**

When he was asked if he was all right, he replied: “Yes, and how are you?” Then, smiling, he asks: “Why do you like talking to me?”. He is attentive to the objects in the room, such as the door and the pipes of the sink, which he says has oxygen. When he sees the mask, he asks if it’s a tape recorder. He explains that it was “Jesus Christ who did this to his Father” and that his forearm has “nails that cause pain”. He associates Hospital Portugal Ramalho with the country Portugal and the “Portugal that will be born tomorrow”. He also repeats the words “para, para, para...”. After that, he quickly punches the door. He then says that he has to leave if there are not going to be deaths in eight minutes.

**Conduct:** Haldol 5 mg (0-0-1) VO; Olanzapine 5mg (0-0-3) VO; Promethazine 25 mg (1-0-0) VO; Lorazepam 2 mg (1-1-1) VO; Haldol Decanoate 03 ampoules IM.

**August 12, 2021 (23 DAY)**

When he is approached, he asks if the interviewers are all right and if we miss him. That day, he was visited by his mother and aunt. When he enters the room, he asks his mother for a blessing and sits down in a secluded spot. When the mother says she misses him, he replies: “I only miss those who love me”. When she leaves, she tells her mother to go home because she’s ill. She doesn’t accept the food her mother has brought. Family members report that they had never seen him like this, with inappropriate attitudes, negativity, that he was a “calm boy and talked normally”.

**Conduct:** Olanzapine 5 mg (1-0-3) VO; Lorazepam 2 mg (1-1-1) VO.

**August 23, 2021 (34 DAY)**

Patient with a greater degree of interaction. He is able to eat, clean himself, maintain contact with other patients, accepts medication and has no psychomotor alterations. However, he still has puerile, disorganized content and simple delusions. When asked what he has in his hand, he asks one of the interviewers to squeeze it and says: “Love, joy, God’s peace”. He asks what he sees in his heart, and says that to find out who he is, all he has to do is read the Holy Book.

**Conduct:** Olanzapine 5 mg (1-0-3) VO; Lorazepam 2 mg (1-0-2) VO. We agreed to discharge him from hospital and open a protocol to obtain Clozapine.

**Outpatient follow-up progress**

**November 03, 2021**

Patient comes to the appointment with his mother and enters the office alone. He doesn’t answer the questions directly, but maintains eye contact and tries to collaborate with the consultation. Cannot answer age and date of birth.

**Conduct:** Clozapine 100 mg (2-0-3) VO; Risperidone 3 mg (1-0-1) VO; Schedule to increase; Clozapine and decrease Risperidone; Blood count requested.

**January 05, 2022**

The patient comes to the appointment with his mother, who begins to speak negatively. The mother says that the patient doesn’t want to have a blood test because he believes his “blood will run out”. He answers the questions and is very cooperative with the consultation. He says he’s eating well. Mother praises son’s behavior and says he’s calm at home. He reports an improvement in personal hygiene and that he is eating well.
**Laboratory tests:** Blood count (02/01/2022) - Hb=15; Leukocytes= 5500; Platelets=134,000

**Conduct:** Increase Clozapine 100mg (3-0-3) VO; Decrease in Risperidone 2mg (1-0-1) VO; New blood count requested

February 21, 2022

The patient is accompanied by his mother-in-law. He is sitting in a waiting chair, cooperative when I call him. The patient’s speech is more organized and he answers questions coherently. He says he spends the day listening to a lot of “international music”, watching television and says he wants to study “the Amazon, the forest and animals”. Sleep and appetite preserved. Has unmotivated smiles during the interview.

**Laboratory tests:** Blood count (02/18/2022) - Hb=13.3; Leukocytes=5000; Platelets=179,000

**Conduct:** Increase Clozapine 100mg (3-0-4) VO; Decrease Risperidone 1mg (0-0-2) VO; New laboratory tests requested

April 03, 2022

Patient remains stable, with no complaints. At times, his speech is disorganized, but understandable. The carer reports a significant improvement in the patient’s interaction with her. He has autonomy in choosing his own clothes and personal hygiene. According to the mother-in-law, the patient remembers his medication schedule and that he is helping to clean the dishes.

**Laboratory tests:** (01/04/2022): Hb - 14; Ht = 42; Leukocytes = 6500; Neutrophils 4030; Platelets = 140,000; HDL = 39.4; LDL = 116; Creatinine = 0.82; TGO = 40; TGP= 11; TSH = 0.97; T4 = 0.7.

**Conduct:** Risperidone withdrawn; Clozapine 100mg (3-0-4) VO maintained; New laboratory tests requested

In summary, after about a month of medication adherence, in which he used antipsychotics (Haldol 10mg/d; Olanzapine 20mg/d) and benzodiazepines (Lorazepam 6mg/d), the patient had a partial response with improved self-care, was able to feed himself, maintained contact with interviewers and other patients. However, at times he had disorganized speech, stereotyped his left hand with linear movements in his right forearm and had simple delirium.

As a result, after changing two antipsychotics at maximum dose and for a fixed period of time (Risperidone and Olanzapine), it was decided to start a Clozapine protocol in order to obtain a better response from the patient. As the patient’s hostility improved, he presented no risk to himself or others and accepted the treatment, it was decided to discharge him from hospital and refer him for frequent outpatient follow-up at the same service.

After a protocol with weekly and then fortnightly blood tests, as well as mental examination evaluations, he showed a better response to his disorganized behavior with high doses of Clozapine. The patient is currently taking Clozapine 700mg/d. He is self- and allopathic oriented, has more organized speech, can answer simple questions, but has concrete thinking and motor stereotypy. The patient has unmotivated smiles during interviews, a puerile attitude, speech with monotonous prosody and impoverished affect.

**DISCUSSION**

In this sense, the previous diagnosis of schizophrenia strengthened the main diagnostic hypothesis of a catatonic state related to schizophrenia. Catatonic behavior or state is a syndrome in which it is demonstrated through drastically reduced reactivity to the environment, which can present a range of motor, mental, behavioral and vegetative symptoms and signs.

Catatonia ranges from an undifferentiated or unusual posture to a lack of movement and speech, known as stupor and mutism, respectively. It was noted that there was a marked impairment of mental, physical and social integrity, since the patient did not eat properly, had impaired personal hygiene, inadequate posture and attitude, with motor activity based on stereotypes and mannerisms, in addition to catatonic rage, stupor, negativism and automatic obedience.

Although its pathophysiology remains uncertain, catatonia is supposedly generated through a disharmony of neurotransmitters in the prefrontal cortex and basal ganglia. In addition, there is a probable dysfunction of the inhibitory cerebral GABA receptors in the orbitofrontal cortex, which would be corrected by positive allosteric modulators of these receptors, a property belonging to benzodiazepine drugs.

The treatment of the catatonic state was based on the use of benzodiazepine drugs, with lorazepam being the first choice because there is more scientific evidence of its benefits. Each case is individualized, but the recommended doses are between 8 and 24mg a day, which are well tolerated with positive results in an average of 3 to 7 days. Thus, first-line treatment was introduced, with a gradual improvement in the catatonic state, which corroborates the scientific evidence.

It is also worth remembering that Diazepam, Clonazepam and Oxazepam are treatment options. From this perspective, these drugs were also used during the course of hospitalization due to the unavailability of Lorazepam. In addition, essential measures were imposed to improve the patient’s physical health, such as venous thromboembolism prophylaxis, skin assessments and frequent repositioning to prevent pressure ulcers, daily stretching to prevent muscle contractions, tube feeding and intravenous fluids to prevent dehydration and malnutrition.

He underwent in-hospital and outpatient antipsychotic treatment because he presented diagnostic criteria for Hebephrenic Schizophrenia, such as puerility, disorganization and other signs and symptoms that were refractory to treatment, including the antipsychotic Clozapine, which combats the positive symptoms of schizophrenia. Thus, electroconvulsive
therapy would comprise another therapeutic arsenal, once characterized as a refractory case, 3-5 sessions are, on average, the amount to soften the catatonic clinical picture. However, the lack of this therapy has made it a major obstacle to its application, as well as the difficulty of getting around to carry out the therapy in another state\textsuperscript{11}.

Currently, the patient continues to attend outpatient appointments frequently and is taking Clozapine 100mg (3-0-4). He continues to improve in terms of self-care and sociability, but his speech remains disorganized even when he is taking the antipsychotic, which would indicate treatment with electroconvulsive therapy, which does not exist in the state in which this report was made.

**FINAL CONSIDERATIONS**

The clinical case demonstrated contributes positively to the medical field, since it provides clarification and knowledge of the catatonic state. It highlights the importance of long-term drug treatment with Clozapine, an atypical antipsychotic indicated in cases of refractory schizophrenia, in order to avoid further decompensation of the clinical condition. In addition, family support has become an important pillar in the success of inpatient and outpatient treatment.

Continuous care with a team of mental health professionals enables better results in the treatment of catatonia, avoiding long-term instability. In this sense, the perception of the severity of the condition should be promptly diagnosed by the teams at the Basic Health Units, which would also help with prognosis and psychosocial rehabilitation.

**Authors’ participation in the text:** Emanuel de Freitas Correia: worked from the initial data collection to the design of the parameters for structuring the study and helped with the writing and continuous review of the manuscript. Igor Guedes Eugênio: worked from the initial data collection to the conception of paragraphs to structure the study and helped with the writing and continuous review of the manuscript. Kelly Cristina Lira de Andrade: co-supervised all stages of writing the article, including planning the study and final review of the manuscript for intellectual content and structure. Esiane de Freitas Correia: co-supervised all stages of writing the article, including planning the study and final review of the manuscript for intellectual content and structure. Audenis Lima de Aguiar Peixoto: guided all stages of writing the article, including planning the study and final review of the manuscript for intellectual content and structure.

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