Case Report

Kloos Syndrome (Paralysis of Time). A Psychopathological Rare Case

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Abstract

A case of Kloos syndrome is presented, a rare psychopathological manifestation in psychiatry characterized by the experience of "time paralysis" related to an epileptic focus in the left temporoparietal areas. This syndrome was identified through a detailed psychopathological analysis and detected by an electroencephalographic record. The patient's symptoms disappeared after receiving antiepileptic treatment with Carbamazepine. In this case report we highlight the detailed phenomenological and clinical analysis, as well as the importance of carrying out complementary tests when we are faced with unusual or sudden-onset symptoms without any trigger, as took place in the case exposed.

Keywords

Kloos syndrome; paralysis of time; psychopathology; epilepsy; epileptic focus; temporoparietal focus

Introduction

Kloos syndrome is a rare condition in psychiatry characterized by the experience as the arrest of time in the present [1,2]. G. Kloos [2] in one of his depressed patients, described it as "the world is a single fragment that cannot move back or forth" and "the minute hand moves forward entirely empty, the clock runs empty". In schizophrenic patients and Alzheimer's disease this paralysis of time and time distortions have also been described, and are perceived as something real "A frightful pain crossed my head, and time remained motionless" [3–5].

Our case is about a patient with no personal history of seizures nor epilepsy. It was possible to identify Kloss syndrome over several appointments and through a broad differential diagnosis, including depersonalization and derealization symptoms. The symptoms disappeared after antiepileptic treatment.

Case Report

Patient B.M., initially seen in September 2017 at the age of forty-seven, had been diagnosed with panic attacks, which persisted over the years.

When she was nine years old she started suffering from "sudden crises" resembling derealization. However, she learned to cope with them as she learned that they did not result in any serious harm.

These crises became less frequent over time and did not significantly interfere with her life, as she maintained a relatively normal lifestyle, including socializing, going out with friends, and pursuing her studies.

At the age of twenty-five she began experiencing a distressing feeling of "leaving time, being outside of time, being disconnected and isolated from the world". She also defined "existential fear" as well as: strong anguish, hands paresthesia, palpitations, diarrhea, trembling and chills. These episodes could last up to fifteen minutes, followed by milder recurrences over two to three days.

Over the years she learned to distinguish between familiar derealization and these distressing episodes of "being outside of time" and "paralysis of time". She expressed that sometimes they were initially triggered as derealization but then mixed with feelings of "existential crisis in which she

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was out of everything" that could last up to fifteen minutes. She expressed "feelings of terror and fear" that she defined as "no longer derealization but being out of the world".

She noticed improvement with Citalopram, antidepressant selective serotonin reuptake inhibitor (SSRI) although some symptoms still remained.

She was able to properly perform her job in the office but struggled with other daily routines as taking distant trips or going out to unknown places. She had her husband being her "phobic companion" and created a "comfort zone" around taking benzodiazepines (Diazepam 5 mg).

Notably, these episodes were more common in the afternoon and evening, especially before bedtime, and increased during autumn and spring.

Among the complementary tests done: blood test analysis—including thyroid-stimulating hormone (TSH) and T4l—Computed Axial Tomography (CAT) scan (Computed Axial Tomography) and Magnetic Resonance Imaging (MRI), showed no abnormalities.

In November 2017 we started treatment with Clobazam (benzodiazepine) at doses of 20 mg per day and was referred to have an electroencephalogram (EEG) test.

EEG result (December 2017): Paroxysmal epileptiform activity of focal spikes of an interictal nature in left temporoparietal areas. Theta wave 6–7 hz outbreaks of increased voltage and short duration, interspersed in the left temporoparietal region.

Conclusion: Focal irritative signs. Intermittent light stimulation does not modify, positive eye block reaction.

At the Neurology service, she was diagnosed with left temporal partial epilepsy.

Subsequently, we added Carbamazepine (antiepileptic drug) to her treatment in increasing doses until reaching 500 mg/day by April 2018, with plasma levels around 5.7 µg/mL (reference range 4–10 µg/mL).

During the following four years (2018–2022) she continued the antiepileptic treatment with carbamazepine at the prescribed doses, maintaining appropriate plasma levels. Blood tests remained normal, with normal white blood cell counts (leucocytes between 6000 and 7200 mm^3).

In the summer of 2018, she was able to travel to Tokyo without experiencing any episodes. During that year, she sporadically experienced brief derealization episodes, and on two occasions, she had the sensation of "existential anxiety" and feeling disconnected, but these were less distressing and shorter-lived.

In 2020 and 2021, she experienced derealization only once and none "time paralysis" episodes.

EEG September 2021: Awake EEG study within normal limits. Brain activity, both at rest and after activity, shows no alterations or graphoelements.

With her treatment and the resolution of existential panic attacks, she carries out a normal life. For example, with the confidence that the episodes would not recur, nowadays she is able to travel—as she always wanted—feeling safe and calm.

Discussion

Epileptic foci may result from different pathological conditions [6–8]. EEG remains crucial in the diagnosis and management of patients with seizures, epilepsy, and altered mental status. Epileptiform transients like spikes and sharp waves serve as interictal markers for epilepsy patients and are the EEG signature of a seizure focus [9].

Kloos syndrome (1938) [2], characterized by the perception of "time paralysis", is rarely reported in the literature. Kloos originally associated it with depressive patients, while similar syndromes as "time exit" (chronoexodesis) [4] or acceleration of time (Klein syndrome) [4] have been described in schizophrenic patients.

K. Jaspers (1975) [4], referred to it, describing the clinical cases published by Kloos. M. Rojo Sierra [1] also mentioned Jaspers' descriptions, but we could not find any articles in the literature referring to this syndrome described by Kloos (Medline, SCIE, SSCI and Scielo).

Our results cannot be compared to other patients with irritative epileptic foci, who may not experience "time paralysis" but rather loss of consciousness during epileptic or petit mal seizures.

When considering the possible causes of this disorder—which appeared suddenly, at an early age and without psychological factors or other psychiatric pathologies—it was necessary to implement complementary tests that could allow us to properly diagnose and treat this disorder. Therefore, we always recommend a deeper analysis of the symptoms to clarify these rare pathologies.

Conclusion

In conclusion, we describe a rare psychopathological phenomenon, "time paralysis", in a patient without any other psychotic or depressive disorders. It was identified through a more detailed clinical analysis and differential diagnosis, understanding that the symptoms of this syndrome are not only about derealization. EEG result and treatment with antiepileptics (Carbamazepine in this case) resolved the clinical symptoms, allowing our patient to return to a normalized life.

Availability of Data and Materials

All data generated or analyzed during this study are included in this published article.

Author Contributions

JRM and CRV designed the study and analyzed the clinical history. CVG analyzed the neurophysiological data. CRV and JASPO performed the translation and verified the neurological results and psychological assessment. CVG and JRM scheduled the analytics. CRV and CVG did the EEG follow-up. CRV and JASPO participated in the writing of the manuscript and in the critical review of the discussion. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and have agreed to be responsible for all aspects of it.

Ethics Approval and Consent to Participate

This case report is not an experiment. There are no ethical conflicts. Informed consent was made and signed. This study was conducted in accordance with the Declaration of Helsinki.

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Conflict of Interest

The authors declare no conflict of interest.

References

[1] Rojo-Sierra M. Psicología y psicopatología de la captación del tiempo y del espacio. Promolibro: Valencia. 2000. (In Spanish)

[2] Kloos G. Störungen des zeiterlebens in der endogen depresion. Nevernatz. 1938; 11: 225.

[3] Día-Saún JL. Fenomenología tiempo-espacio. 2015. Available at: https://sites.google.com/site/jldiasahun2/fenomenologia_tiempo_espacio (Accessed: 18 May 2021). (In Spanish)

[4] Jaspers K. Psicopatología general. 4th edn. Editorial Beta: Buenos Aires. 1975. (In Spanish)

[5] El Haj M, Kapogiannis D. Time distortions in Alzheimer's disease: a systematic review and theoretical integration. NPJ Aging and Mechanisms of Disease. 2016; 2: 16016.

[6] Jackson GD, Kuzniecky RI, Berkovic SF. Introduction to Epilepsy. Magnetic Resonance: Epilepsy Neuroimaging Techniques. 2nd edn. Elselvier Academic Press: San Diego. 2005.

[7] Gorji A, Speckmann EJ. Introduction. In Schwartzkroin PA (ed.) Encyclopedia of Basic Epilepsy Research (pp.953–958). 1st edn. Hardback Book: California. 2009.

[8] Lee JK. Psychiatric disorders associated with epilepsy. 2022. Available at: https://emedicine.medscape.com/article/1186336-overview?form=fpf (Accessed: 27 July 2022).

[9] Boro AD. Focal EEG waveform abnormalities. 2019. Available at: https://emedicine.medscape.com/article/1139025-overview?form=fpf&scode=msp&st=fpf&socialSite=google&icd=login_success_email_match_fpf (Accessed: 09 October 2019).