



Science

GANSER SYNDROME AS A PARTICULARITY OF THE COGNITIVE DEFICIT IN SCHIZOPHRENIA

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Abstract

Introduction: Disorganized schizophrenia is a subtype of schizophrenia which is not recognized in the updated version of DSM. It is found in ICD-10 with the name of hebephrenic schizophrenia. The paper presents a 27-year-old patient with multiple admissions at psychiatry for schizophrenia with an unknown onset, initially considered to be paranoid; the current level of disorganization of the behavioral acts, of the language, of the thinking, having the intensity of hebephrenic schizophrenia. The paper presents a Ganser syndrome in association with alcohol consumption and prohibited substances use.

Methods: hospitalization, psychiatric evaluation under antipsychotic treatment with haloperidol and zuclopenthixol, counseling, social assistance.

Results: The patient fulfills all the criteria for the classification in hebephrenic schizophrenia, with a reserved prognosis and an involuntary accentuated potential considering the multiple admissions, the early onset, the lack of social and family support, the absence of the obvious triggering factor, the resistance to the treatment, the probable association with the substance use. Considering school dropout and the potential subcultural context, it can be considered the presence of a mild to moderate intellectual disability.

Conclusions: In the context of the profound dissociation of the behavior, affect and thinking, the patient associate traits from the Ganser syndrome with his vulnerable personality, which are grafted on the halls created by his absent family support and emotional neglect. The bizarre attitudes and positions along with the Ganser syndrome predict a potential catatonic episode.

Keywords: Cognitive Deficit; Schizophrenia; Theory of Mind; Ganser Syndrome.

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1. Introduction

1.1. Reasons for Admission

A 27-year-old patient, with a psychiatric background, is brought from the street by policeman for modified hallucinatory-delusional behavior, parasitic appearance and inadequate affect with bizarre, unmotivated laugh, emotional lability, potentially unpredictable. Considering the symptomatology, the decision of the admission is taken because of the non-voluntary procedure according to the 487/2002 law. It was explained to the patient the need for treatment and the fact that he will be evaluated by a commission.

1.2. Hereditary-Collateral History

unknown / cannot be evaluated

1.3. Personal, Physiological, Pathological Background

unknown / cannot be evaluated

1.4. Living Conditions / Personal History

We have no information about family or school development (apart from the fact that, stating, he is a 6-class graduate). We can suppose a grade of intellectual disability between mild and moderate, with school dropout (probably because he belonged to a family that did not provide support for further education), mental disability potentiated in a subcultural context

1.5. Addictive Behaviors

In his personal history: cannabis and alcohol use; cocaine / heroin use is uncertain (the patient remembers these, but cannot say whether he did or not consume)

1.6. Background Medication

administered before hospitalization: clopixol performed on 26.09 (with the mention of the need for repetition on 10.10)

1.7. History of the Disease

September 2019: The patient, known with a psychiatric history (approx. 20 admissions at psychiatry) was admitted to the hospital in the acute Psychiatry section for 16 days (10.09-26.09), with the main diagnosis of paranoid schizophrenia, and secondary: mental and behavior disorders due to tobacco use, addiction syndrome.

October 2019: Despite of prior treatment to hospitalization (Clopixol depot on 26.09), the patient is brought to the hospital from the street by the policemen, on the night of October 9 to 10, showing

"inappropriate behavior specifically: he tried to avoid the police crew, did not cooperate, began to say meaningless words, requested alcoholic drinks while laughing for no reason"

1.8. Paraclinical Examinations

It was established the necessity of taking biological samples to detect the use of substances; also a CT / MRI scan of the brain and an electroencephalogram could be useful for excluding an organic disease and for differential diagnosis.

2. Materials and Methods

Patient in the hospital, inadvertent ward, partially oriented to time and space auto and allopsychic, restless psychomotor, partially cooperative, the interview is performed with difficulty; establishes but does not maintain eye contact with the examiner

Attention: difficulties of attention stability - shaping aprosexia, occasional involuntary hyperpyrexia associated with concern and interest only to satisfy self needs (he interrupts the conversation because he observes a bottle of juice and asks for permission to drink), the alternation between the two being paraprosesia, the dissociation between spontaneous and voluntary attention is usually encountered in manic episodes

Memory: cannot be investigated; inability to register into his own family, does not know his address, with difficulty states that he is in the hospital and knows the name of the hospital, cannot say where he lived

Thought: dissolution of thought, accelerated ideo-verbal flow, phenomena of idea barrier, disorganized speech at the level of the proposition / loss of meaning in the sentence and the logical associations, present clang associations - glosomania ("I need air to exhale it, to inhale it ; in prison they have, my heart hurts"), the associations by contiguity shape a salad of words, and as a particularity of the language is observed echolalia (when trying to find out the attitude about the disease he repeats the last word said by the examiner: "schizophrenia?", "certificate?"); fragmentary delirious idea, the jump from concrete to abstract, confusion between the two planes ("to deflower a flower", "here is the ear, but it is broken", "I want to move in a warm summer"); suicidal ideation, but with an inconsistent effect, which gives a rather cartoonish character: "I would like to self-shoot a bullet directly in my forehead", "a nuclear bomb would be enough for me"

Perception: probable auditory hallucinations; attitudes of perception

Affectivity: dispositional lability, expansive disposition, inadequate, sexual disinhibition, bizarre laughter totally incompatible with the disposition

Activity: Null useful yield

Behavior: pseudo-maniacal (lacking, however, emotional contagion), bizarre, shaping idiocy, psychotic changed, dromomania, rambling, toxicophoric impulses, ganseroid appearance

("sideway" answers to trivial questions – he mistakes the colors, shows his throat instead of his ear - or avoids the answer by saying "I don't know"); this is the particularity of the present case, developed below.

Food appetite: beetroot

Circadian rhythm: mixed insomnia

Awareness of the disease: absent

2.1. Positive Diagnosis

Considering the above symptoms, we argue that the diagnosis of Axis I is disorganized schizophrenia (DSM-IV) / hebephrenic type (ICD-10).

According to ICD-10, schizophrenic disorders are generally characterized by characteristic distortions of thinking and perception and affects which are inadequate and weak. Clear awareness and intellectual ability are usually maintained, although certain deficiencies in knowledge may evolve over time. The most important psychopathological phenomena include: the repetition of thoughts like an echo; the influence of thought or theft of the thought; the transmission of thoughts; the delusional perception and delusional ideas of control, influence or passivity; hallucinations in which voices speak or discuss the patient in the third person; thought disorders and negative symptoms.

Hebephrenic schizophrenia (or disorganized schizophrenia) is a form of schizophrenia in which affective changes are the main problem and it also presents with delusional ideas and fragmented hallucinations, irresponsible and unpredictable behavior and mannerisms. The disposition is superficial and inappropriate, the thinking is disorganized, and the speech is incoherent. There is a tendency for social isolation; the behavior seems meaningless and feelingless. Usually the prognosis is unfavorable due to the rapid development of the 'negative' symptoms, especially the flattening of the affect and the loss of the will. Hebephrenia should be normally diagnosed in adolescents or young adults (15-25 years).

Although DSM-V does not differentiate between the schizophrenia subtypes, the patient also answers the general diagnostic criteria:

- Criterion - presents for a significant period of time a month delusion, hallucinations, disorganized behavior (3 out of 5 are present, for diagnosis 2 or even 1 is sufficient, if the delirium is bizarre or the voices are commentary);
- Criterion - work, interpersonal relationships, self-care are affected for a significant portion of time;
- Criterion - the signs of the disorder are present continuously for a period of at least 6 months, in which those included in criterion A were present at least 1 month, even under treatment;
- Criterion - exclusion of dispositional disorders (schizo-affective disorder, depressive disorder and bipolar disorder with psychotic elements)

- Criterion - the conditions related to substances and drug use are excluded (with the mention of the need to perform the multidrug test)
- Criterion - a pervasive developmental disorder is excluded.

DSM-IV: Diagnostic criteria for 295.10 Disorganized Type

A type of schizophrenia in which the following criteria are met:

- Any of the following are prominent:
 - 1) Disorganized behavior;
 - 2) Disorganized language;
 - 3) Flat or inadequate affect.
 - 4) Our patient meets these criteria.
- The criteria for the catatonic type are not fulfilled - for now, the criterion is fulfilled, but the attitudes and positions of the dyskinetic together with Ganser syndrome suggest a potential future catatonic episode.

Axis II: personality traits of the hysteroid type

Axis III: absence of somatic diseases

Axis IV: pathology of alcohol, drug abuse, lack of social network.

Axis V: GAFS = 20 points: flagrant communication damage (extremely incoherent)

2.2. Treatment of Psychiatric Illness

Treatment:

- 1) Haloperidol If. + 0+ If.
- 2) Diazepam If + 0 + If
- 3) Trihexyphenidyl 1 + 0 + 1
- 4) Valproate 1000 mg 1 envelope / evening
- 5) Lorazepam 1mg 1 + 1 + 0

From the ticket of the last discharge (26.09), we extract the following:

Rp: Clopixol Depot 200mg / ml 1fi intramuscular once at 2 weeks (next administration on 10.10.2019), Depakine chrono cp 500mg 0 + 0 + 1cp / day po.

2.3. Differential Diagnoses for Psychiatric Illness:

2.3.1. Differential Diagnosis for Axis I (*Hebephrenic Schizophrenia*)

- 1) The schizoaffective disorder - an expansive episode: a pro argument would be the expansive coloration of the discourse, through greatness and omnipotence ("I think I will accomplish a lot"), but this one is particularly interested in thinking and not affectivity (disposition), which pleads for the diagnosis of schizophrenia. On the other hand, paraprosopagnosia by the dissociation between the voluntary and the involuntary attention observed at the patient is a characteristic especially encountered in manic episodes. In favor of schizophrenia are the hallucinations that occur in the absence of obvious dispositional disturbances. Also, the countertransference from the patient does not contaminate with his supposed expansivity, which is the specific trait of the maniacal person.

- 2) Paraphrenia: it is characterized by a chronic delirium, systematized, hallucinatory, with fantastic character, whose imaginative richness goes until the creation of an imagined world. In schizophrenia delirium is limited, incoherently, associated with the destruction of personality, in comparison with the paraphrenic patient, where the mechanisms of adaptation to reality persist. Also, in the case of paraphrenics, the closer the delirium goes to fiction, the more it loses out of danger.
- 3) Cotard's Syndrome: "I no longer have my head" =a delirious idea of negation that shapes the Cotard delusion. It should be accompanied by a strong, negative, emotion, but the patient is dissociated, the laughter is bizarre, inconsistent with the disposition.

2.3.2. Differential Diagnosis for Axis II (Hysteroid Personality Traits)

Organic Personality Disorder

It represents a marked change of the personality style from a previous level of functioning, highlighting an organic causative factor that determines the structural destruction of the brain, in this case it may be a traumatic brain injury, having considered the environment where he lives which predisposes the patient to involvement in conflicts and alcohol consumption/ substances use. We can also consider a possible epileptic focus in the temporal lobe (usually in this syndrome there are complex partial seizures). Also, in this category are included the personality changes produced by the chronic intoxications. The patient has several features of this syndrome; the affection of the emotion control and impulses control, the lability and emotional superficiality, short periods of absence, the pseudomania, the diminishing of the ability to anticipate the social consequences of his own actions (see meeting with the police)

These assumptions can be disproved by the imaging investigations, EEG and the impossibility of determining in the blood a substance that can cause chronic poisoning.

Histrionic Personality Disorder

The patient does indeed have hysteroid features:

- The desire to shock, to attract attention, the caricature attitudes, answers that seem intentionally wrong, also related to Ganser syndrome
- Theatricality (he addresses to an inanimate object (electrical panel): "do you have current?" then imitates the electrocution, singing, associations by the rhyme)
- Seducer (kissing the examiner's hand when his lack of cooperation is reproached)

They all seem to have an infantile connotation, not the means to obtain secondary advantages during the admission.

2.4. Evolution and Prognosis

Positive prognostic factors: premorbid personality at risk, positive symptoms

Negative prognostic factors: relatively early onset of schizophrenia (characteristic for disorganized schizophrenia, with the most reserved prognosis), without obvious triggering factors, male, multiple admissions in a short period of time (approximately 20 in 7 years), potential intellectual disability, resistance to treatment, civil status - unmarried, has no social support (family, friends), lack of insight, potential association with substance use, social status: apparently without shelter, without work

2.5. Complications

The evolutionary risks are:

- Potential medico-legal complications
- Risk of continuous disorganization in thinking and behavior, affecting the social functioning
- Risk of negative phenomenology
- Risk of parkinsonism, secondary to chronic treatment with classical neuroleptics
- Risk of non-compliance with the treatment
- We do not estimate risk of depression or suicide at the present time
- Multiple relapses

3. Results and Discussions

The theatricality, the desire to impress like a circus clown can be a form of Adlerian overcompensation because the patient shows a sketch of regret over not finishing studies, but with an ambivalent experience ("bigger blockhead", "I think I will achieve a lot" "- shapes the grandeur).

He is most likely abandoned by family and friends, possibly on the background of stigmatization, his behavior being bizarre, dissociated, betraying a fast-evolutionary potential and a reserved prognosis. Mild to moderate intellectual disability may be present, enhanced by the subcultural context, but it is difficult to determine what proportion of the cognitive deficits identified in the current episode is due to insufficient cognitive development, respectively the degradation caused by schizophrenia, alcohol consumption and drug use.

His attitude, his dyskinetic / dystonic positions, his psychomotor agitation (from the sphere of akathisia) may be accounted from the extra-pyramidal adverse effects of zuclopenthixol (Clopixol depot). Currently, to the patient it was prescribed another classic antipsychotic (Haldol), but in combination with trihexyphenidyl hydrochloride (Romp Arkin) to control these side effects. At the same time, these manifestations may be due to the evolution towards the catatonic type of schizophrenia, a rarer form, but with a better prognosis than the current diagnosis and which can benefit from electro-convulsive adjuvant therapy.

4. Conclusions and Recommendations

Identified by Sigbert Ganser in 1898, the dissociative syndrome that bears his name is between organicity and simulation, having characteristic the "side" answers (vorbeireden), as well as calculations and behavior "on the sideways", but also symptoms of deficiency without organic background, which appear and disappear suddenly, often followed by amnesia of the episode. It has been described in incarcerated persons, who could derive secondary benefits from such behavior. In our patient's case, the benefit could be primary, grafted on an old pathology of emotional neglect and lack of support from the family.

The proposed etiological mechanism is the hysterical dissociation (the syndrome being placed in DSM-IV-TR in the category of dissociative disorders without other specification), Ganser himself calling this entity "a particular hysterical twilight state", and our patient seems to have specific traits of this personality type, considering the possibility of coexistence of mild intellectual disability because of the environment where he lives and lived and also because of the early onset of schizophrenia.

The condition is associated with obnoxiousness, superficiality and inconsistency of the answers, these being appropriate to the question but fundamentally wrong (the patient purposely mistakes the colors, he shows other parts of the body when asked to identify his ears; although we have not tested this aspect, the ganseroid patients always answer incorrectly to the calculation problems). The examiner is able to understand the intention to answer incorrectly, as if the answer is found, but in the last moment a deviation takes place and the patient ends by giving an answer "on the sideways". Another solution is found by the patient to the problems raised during the interview, specific to Ganser's syndrome: the use of the expression "I don't know". Other researchers have also noticed the tendency to not give constant answers when the same question is repeated- this aspect was put on the basis of a volatile disposition, as proof of the ability of conceptual elaboration and not of a cognitive deficit. Consistent with this approach, the patient has some suggestibility, he has inclinations towards caricature and dramatization (see the apparent suicidal ideation and the dialogue with the electrical panel), but it is not possible to specify how much is due to the unsystematic delirium and how much due to the influence of the consumed substances (sedatives, hypnotics and alcohol being generally associated with dissociative disorders).

In the specialty literature, Ganser's syndrome is mentioned in a wide range of disorders, not all from the psychiatric sphere, from depression, mania and schizophrenia to different types of dementia, pseudodementia, intellectual disability, epilepsy, neurosyphilis, head trauma, post psychosis-partum, associating symptoms such as amnesia, hallucinations, perplexity, disorientation, excitement, indifference, conversion disorders, etc. In this case, the syndrome appears in the background of a current disorganized schizophrenia (but interpreted as paranoid in the past and probably with mixed features at the past admissions) superimposed on a background of intellectual disability, accompanied by obvious disorientation, hyperactivity and amnesic disorders.

Drob and Meehan [3] suggest the predisposition to develop this disorder in fragile, poorly adapted individuals, who already have symptoms of a dissociative disorder before the occurrence of a stressor that leads to Ganser syndrome decompensation. Many authors support the hypothesis of the traumatic impact of incarceration of a vulnerable individual as being a trigger for such a psychotic reaction in prison patients. Here is where the case has been most commonly described. Even though there were no documented events like this in our patient's case, there is the possibility that the repeated involuntary admissions in the psychiatric hospitals acted as the equivalent of incarceration, resulting in the same syndrome.

Also from a psychoanalytic perspective, the same two authors recommend investigating the history of physical or sexual abuse in childhood, responsible for the appearance of a significant number of dissociative disorders, an aspect that they include in a protocol for differentiating the Ganser syndrome from a simple simulation (SHAM LIDO : Subtle Symptoms, History of Dissociation,

Childhood Abuse, Motivation to Malingering, Lying and Manipulation, Injury to the Brain, Diagnostic testing, Longitudinal Observation).

The nature of Ganser syndrome is still uncertain, often being bordered by Munchausen syndrome and simulation (the latter being an important cause of under-diagnosis) and the variability of symptoms corresponds to the associated psychiatric disorders. However, the connection with schizophrenia is among the first mentioned in the literature: in 1902, Franz Nissl, Ganser's mentor, considers the syndrome as a psychotic disorder and describes it as a form of catatonic negativism with an oppositional reaction in the context of dementia praecox (the archaic name of schizophrenia). Through the prism of the presented patient in this paper, which already presents vague, but suggestive dyskinetic attitudes and positions, with the transition to psychomotor agitation, as well as transient mutism and echolalia, this statement pleads for the evolution of his mental illness towards a form of catatonic schizophrenia (this leads to the third subtype of schizophrenia diagnosed in the same patient), which changes both the prognosis of the disease and the therapeutic priorities.

References

- [1] Carlson, N.R., William, M., Neil, G. (2000). Psychology, the Science of Behaviour. London: Ed. Person Education Limited.
- [2] Carney, M.W., Chary, T.K., Robotis, P., Childs, A. (1987). Ganser syndrome and its management. *The British Journal of Psychiatry: the journal of mental science* 151: 697–700.
- [3] Drob, S., Meehan, K. (2000). The diagnosis of Ganser Syndrome in the practice of forensic psychology. *American Journal of Forensic Psychology*, 18(3), 37-62.
- [4] Lieberman, A.A. (1954). The Ganser Syndrome in Psychoses. *Journal of Nervous and Mental Disease*, 120(1-2), 10-16.
- [5] McGlashan, T.H., Fenton, W.S. (1993). Subtype progression and pathophysiologic deterioration in early schizophrenia". *Schizophr Bull.* 19 (1): 71–84. doi:10.1093/schbul/19.1.71. PMID 8451614.
- [6] Montreuil, M., Doron, J. (2009). *Treatise of Clinical Psychology and Psychopathology* (under the direction of Serban Ionescu and Alain Blanchet). Bucharest: Trei Publishing House.
- [7] The ICD-10 Classification of Mental and Behavioural Disorders – Clinical descriptions and diagnostic guidelines (PDF). Geneva: World Health Organization.
- [8] Di Fiorino, Mario. (2007). Factitious Disorders: the Münchhausen and Ganserian patients. *Revista Romana de Psihiatrie*. Nr.2-3/2007.
- [9] Liddle, P.F. (1987). The symptoms of chronic schizophrenia. A re-examination of the positive-negative dichotomy. *Br J Psychiatry*. 151 (2): 145–51.
- [10] American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th edition). Washington, DC.
- [11] Cain, J. (1998). *Psihanaliza si psihosomatica*. Bucuresti: Ed. Trei.
- [12] Shaw, D.S., Hyde, L.W. & Brennan, L.M. (2012). Early predictors of boys's antisocial trajectories. *Development and Psychopathology*, 24, 871-888. doi:10.1017/S0954579412000429
- [13] Black, D.W. (2015). The Natural History of Antisocial Personality Disorder. *Can J Psychiatry*. 2015 Jul;60(7):309-14. [PMC free article] [PubMed]
- [14] Werner, K.B., Few, L.R., Bucholz, K.K. (2015). Epidemiology, Comorbidity, and Behavioral Genetics of Antisocial Personality Disorder and Psychopathy. *Psychiatr Ann*. 2015 Apr;45(4):195-199. [PMC free article] [PubMed]

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