

Ganser syndrome – a dissociative disorder or a factitious disorder? A case report

Karolina Wincewicz, Karolina Sapota-Zaręba, Tadeusz Nasierowski

Department of Psychiatry, Medical University of Warsaw

Summary

Ganser syndrome (GS) is one of a few eponyms that have survived in psychiatry until the present day. GS is a little-known and rare disorder. It is most often described as a response to a stressor (e.g. incarceration), that is why it is an important issue in forensic psychiatry. Organic causes are taken into consideration. The basic symptoms of the syndrome are: approximate answers, visual and auditory hallucinations, clouding of consciousness and conversion symptoms. Additionally, patients may perform activities in an awry manner and suffer from insensitivity to painful stimuli. GS is usually acute and subsides spontaneously. Usually patients do not remember they had an episode of the disease.

Diagnostic criteria of GS are imprecise and its classification has been changed over the years. GS was not listed in the DSM-5 classification, although in the DSM-IV it was classified as a dissociative disorder. Currently some authors tend to classify it rather as a factitious disorder. WHO (ICD-10 and ICD-11) classifies GS as a dissociative and conversion disorder, which seems to be appropriate in the light of current knowledge.

The presented case report describes a patient with a nearly identical pattern of full-blown GS, which occurred twice. The symptoms appeared shortly after the patient was incarcerated. The course of the disorder was chronic and recurrent. The patient was insensitive to pain stimuli. Somatic causes were excluded in the diagnostic process.

Key words: Ganser syndrome, dissociative disorder, factitious disorder

Introduction

Ganser syndrome described by Sigbert Ganser (1853-1931), a Saxon psychiatrist, is one of a few eponyms that have survived in psychiatry until the present day.

Ganser studied medicine at the Universities of Würzburg and Strasburg and at the Ludwig Maximilian University of Munich where he earned his medical doctorate in 1876 and a postdoctoral degree in 1880 based on a thesis summarising his studies on the mole brain (Ger. “*Untersuchungen über das Gehirn des Maulwurfs*”). Similarly to

Emil Kraepelin (1856-1926), initially he worked under the guidance of Bernhard von Gudden (1824-1886), a neuroanatomist and psychiatrist, who was the head of the Munich department. In 1884 he moved from Munich to the National Psychiatric Institute in Sorau (Pol. *Żary*), while in 1886-1889 he served as the head of the lunatic department of the Dresden-Friedrichstadt General Hospital. His further career remained linked with Dresden, where he was the director of the State Hospital for Patients with Mental and Chronic Disorders and volunteered at the Saxon State Office for Health Care and Policy.

Ganser was one of the co-founders of the Society of Central German Psychiatrists and Neurologists. He organised numerous scientific conferences and authored plenty of psychiatric reports because of the positions he held and Saxon health policy he shaped. In his opinion alcohol dependency was the major issue to be tackled by health policy in Saxony. In his regular practice he mainly treated patients with this disorder, whereas his scientific interests focused mainly on the relationship between alcohol addiction and hysteria. He published an article discussing this subject in 1893 (Ger. "*Über einige Symptome der Hysterie und über die Beziehungen der Hysterie zum Alkoholismus*"). He also authored neuroanatomical papers [1]. In his medical practice Ganser also treated patients with chronic somatic disorders, e.g. tuberculosis and cancer, who needed appropriate medical care. Ganser emphasised that every patient has the right to live and challenged the view born in Saxony that mentally ill persons "are human beings who are not worthy of living" [2-5].

In 1913 a jubilee volume of the journal entitled "*Zeitschrift für die gesamte Neurologie und Psychiatrie*", that was dedicated to him, was issued on the occasion of his 60th birthday and in recognition of Ganser's merits for the development of psychiatry in Saxony. It contained articles written by his colleagues and students.

It was a speech he delivered in 1897 during the National Congress of Psychiatrists and Neurologists in Halle that made S. Ganser go down in history. He presented three cases of prisoners whom he examined as a court expert. They were previously healthy. Symptoms which constituted the essence of the syndrome described by him appeared when they were incarcerated. According to Ganser these symptoms were a particular form of hysterical blackout.

The first of the described patients had severe agitation episodes. He jumped out of his bed, assuming a boxing stance, and after that he suddenly hid himself, looking for shelter. He talked about war and hunting. Another time he was lying in bed,

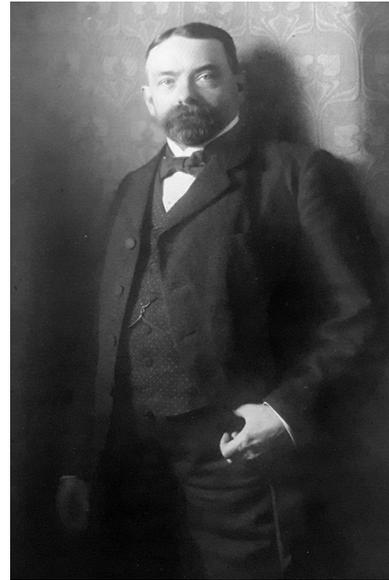


Fig. 1. Sigbert Ganser

staring at one point. He did not answer the questions asked. His behaviour was interpreted by Ganser as secondary to psychotic sensations. The patient was not able to state the correct date. He seemed exhausted and uninformed about his situation.

The second patient was completely passive. He was lying in bed, staring at the ceiling. Periodically he was in fear. Usually he did not speak. He failed to recognise his visitors, who had already visited him in the past. During the conversation about the sentence of incarceration imposed on him or while referring to his family, he seemed as if these subjects were completely unfamiliar to him. He was confused as to place and time. When he was asked for the duration of his hospitalisation, each time he answered that he had been staying for one or two days at the ward. His carers, whom he had not previously known, were referred to by him with popular names. He incorrectly answered questions about items shown to him, e.g. he stated that a key is a revolver made of silver. He was able to correctly identify a clock, but he misread the hour – he mistakenly stated that 9:30 is 5:30. Moreover, he incorrectly named letters, e.g. he identified “r” as “i” and “t” as “f”. The patient acknowledged that he had visual hallucinations. He described that he was seeing black characters who trailed after him, whistling and calling him.

The third patient was constantly lying in bed, complaining that he was not able to get up. During hospitalisation he denied having hallucinations, but when he stayed in prison he often demanded that his prison cell be changed. He justified it with fear of black, armed men, who were descending on him. He did not agree with the charges brought against him for which he was incarcerated although he had previously acknowledged them. On the other hand, he accused himself of committing many murders, which he did not actually commit. He described circumstances of the crime in detail. He also claimed that while he was escaping he threw his children into the river. Moreover, he gave false information about his age, family and number of children.

In all cases described by Ganser, symptoms of the disease subsided rapidly. Patients became fully aware and were surprised by the fact that they were hospitalised. They asked about the causes of hospitalisation. They also did not remember anything from the time when the symptoms were present. Patients correctly answered all questions to which they had previously provided false answers [6].

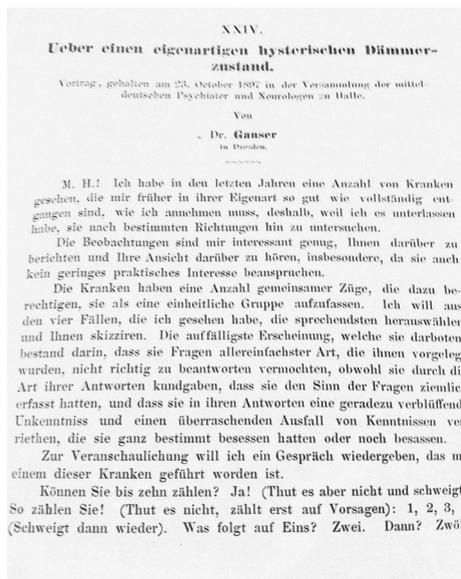


Fig. 2. First page of S. Ganser's article

The Ganser syndrome, sometimes also referred to as the syndrome of approximate answers, is a little-known and rare disorder. A recent literature review indicates that only 117 cases have been described since Ganser published his article 118 years ago [7].

Ganser syndrome: aetiology, symptoms, treatment

Aetiology

Numerous specialists point out that an organic pathology is the underlying cause of Ganser syndrome (GS) [8-10]. Sigal et al. [11] studied a group of 15 patients with diagnosed GS. Six of them had a history of head trauma followed by loss of consciousness and one of them had a history of stroke with unilateral paresis. The aforesaid observation was also confirmed by a follow-up study which has recently been published: based on a 25-year follow-up it was demonstrated that the organic factor cannot be underestimated in diagnosing GS [12]. As indicated above, Ganser discerned that hysteria was an underlying cause of the syndrome described by him. However, two of three patients presented by him, i.e. prisoners from Halle, suffered head trauma in the past. One of the studies on this subject showed that only four of 514 patients with head trauma developed symptoms of GS [13]. Therefore, it should be generally concluded that: head trauma cannot be considered as a cause of GS but only as one of the factors which increase its risk.

Based on results of the studies it may be concluded that this syndrome most frequently affects men aged around 30 who are incarcerated [14]. However, there are cases without criminal record who developed symptoms of GS in a stressful situation. Thus, this syndrome may be treated as an expression of being (not) able to cope in a critical situation [15, 16].

GS has also been diagnosed in children and adolescents, but only approximately 10 cases are described in source literature. There is also evidence that GS is associated with affective disorders (episodes of depression or bipolar disorder may develop after GS) and that its major symptoms (hallucinations, clouding of consciousness, approximate answers) may be concomitant with an episode of depression or be a manifestation of depression experienced in adolescence [17]. GS was also associated with Tourette syndrome [18], schizophrenia and behavioural disorders. A male patient who concomitantly developed a number of dissociative symptoms, i.e. fugue, amnesia, symptoms of Ganser syndrome and multiple personality, was reported in Japan [19]. There are also known cases of recurrent GS symptoms [17]. Case reports indicate that GS prevalence is higher among ethnic minorities and emigrants [11, 20-23].

Symptoms

Providing incorrect answers to questions asked is the main symptom of GS. Patients give approximate answers (for example: answer "5" is provided to "how many is 2 + 2?" or "three" to "how many ears do you have?") or they answer "I don't

know” even to the simplest questions. They are confused as to place and time, and incorrectly state their age and date of birth. The symptom of approximate answers is referred to in German as *vorbeigehen*, which literally means “to pass, to pass by, to miss”. It should be noted that patients do not feel offended by the childish nature of the questions asked. The ability of understanding the question itself combined with the psychogenic inability to provide a correct answer is emphasised. Additionally, patients answer questions with apparent difficulty, after reflection. It is also observed that they perform activities in an awry manner, e.g. they hold a pen upside down or attempt to ignite the wrong end of a match.

Other most frequent symptoms of GS include clouding of consciousness and vivid hallucinations, such as visual and auditory hallucinations. Conversion symptoms, such as paresis or tremor, are other major symptoms of GS. Sensory disorders are also noted – a partial or total (time-varying) insensitivity to painful stimuli was described in one of the patients. The patient’s mental status may vary considerably: from strong arousal to stupor [6, 24, 25].

Acute course [14] and spontaneous remission [26] are typical of GS, but cases with symptoms persisting over several months despite therapeutic interventions have also been reported [9, 20]. Usually patients do not remember they had an episode of the disease [25].

Therapy

Ganser syndrome is usually treated with psychotherapy focused on analysis of the symptoms’ significance [20]. Haddad [27] hypothesises that GS is similar to depression, suggesting that although both disorders manifest in a completely different manner in both cases there is the same hidden conflict. Treatment of patients with GS similar to the ones with depressive disorders yields good results, while any accusations and pressuring them to change their behaviour extend the time needed to return to normal status [28]. In addition to psychotherapy, pharmacotherapy is successful. It mainly involves antipsychotics but also antidepressants. Lorazepam may be administered as an effective alternative [15]. Hypnosis is an unusual treatment [29].

Diagnostic criteria and classification of Ganser syndrome

Classification of GS and its diagnostic criteria have been the subject of numerous disputes over the years. Enoch and Tretchowan [30] propose four diagnostic criteria of GS: (1) approximate answers, (2) hallucinations (visual and auditory), (3) clouding of consciousness and (4) conversion symptoms. It should, however, be emphasised that GS meeting all the criteria is reported very rarely. *Vorbeigehen*, that is giving approximate answers, is the most frequently noted symptom. In the ICD-10 classification of mental and behavioural disorders GS is considered to be a dissociative disorder and is coded as F44.8, i.e. other dissociative and conversion disorders. In order to diagnose GS,

general criteria for dissociative disorders have to be fulfilled, i.e. absence of somatic diseases that could cause symptoms typical of these disorders (somatic disorders resulting in other symptoms may be present) and a temporal relationship between onset of symptoms and the effect of a strong stress component. At the same time, other types of dissociative disorders should be ruled out.

In ICD-11 GS is still classified as a dissociative (conversion) disorder. As far as DSM-IV is concerned GS is also put into a category of dissociative disorders. Both classifications developed by WHO and the ones of the American Psychiatric Association do not determine the number, type and severity of symptoms which have to be present so that GS can be diagnosed [31, 32]. GS was not listed in the DSM-5 classification published in 2013. Its nosological status remains controversial and some authors tend to classify it rather as a kind of a factitious disorder than a dissociative (conversion) disorder.

Case report

A 52-year-old patient was referred to the psychiatric ward by a prosecutor for forensic psychiatric assessment. He had a history of arterial hypertension, hyperlipidaemia, cholelithiasis, cyst in the right kidney, right-sided inguinal hernia, suspected Lyme disease in the past and head trauma with loss of consciousness in childhood. The patient denied self-harm, suicide attempts and psychoactive substance abuse.

He was raised in a complete family with many children. His father abused alcohol. The father's brother was hospitalised in a psychiatric ward, but there is no data regarding the diagnosis established. Early childhood development of the patient was normal. He graduated from elementary school on time. He was not promoted to the second grade in vocational school. When he was 16 years old, he was placed in a correctional facility; from there he was transferred directly to prison when he reached the age of 18. He was conditionally released 13 months later. Seven years later he was sentenced to 11 years of imprisonment for robberies and burglaries and was re-incarcerated. After six years of imprisonment he was granted a temporary release from which he failed to return to prison. The patient was hiding for the following 11 years, using a false ID card. In that time, he was casually employed. He lived with his partner with whom he has two children. The patient's arrest was accidental; it took place while he came to a general hospital. He was then identified and re-incarcerated.

The first psychiatric consultation took place after three months in prison. It was due to his altered behaviour and hindered contact. The consulting psychiatrist noted: "He states his full name, does not know how old he is, when he was born; he knows that he is in prison [...], repeats questions [...], is not able to name the room, does not make simple calculations (2 x 2), does not state the date, does not recognise himself while looking in the mirror – <<is this me?>>". After a few months the patient stopped speaking. Due to behavioural changes his condition was repeatedly consulted with a psychiatrist. At the first consultation, the consulting psychiatrist said: "he is lying

on a stretcher with eyes closed; his body is shaking (evidently in a simulated, controlled manner); he does not give answers to any questions". At the next consultation he noted: "since the hearing at the penitentiary court he stopped walking, lies in bed all day long, does not want to eat or drink. He does not make contact and tightens his muscles when I attempt to examine him". During three years of the patient's incarceration his behaviour varied, sometimes he sat on the bed and got up, but most of the time he spent lying down and not making contact with anyone. He stopped moving his right upper and lower extremity which is why his condition was consulted by a neurologist who noted: "he does not follow instructions, does not move his right limbs, passive movements preserved, increased tension in the right lower extremity, muscle atrophies and contractures present, deep reflexes present, equal, without any pathology, clonuses (ankle clonus, patellar clonus) not present". As a result, it was concluded that the patient was simulating.

During the aforesaid incarceration, as he refused to eat and drink the patient was hospitalised twice for several weeks at departments of internal diseases in order to achieve metabolic control. Ultimately he was referred to the prison department of chronic internal diseases, because he needed constant care. During his 2.5-year stay at this department, the patient did not speak. Sometimes he responded to unambiguous questions by nodding his head. He did not walk. Increased muscular tension in the lower extremities and trace right-sided paresis were observed. The patient required diapers because he had no control over his bladder and anal sphincter muscles. Head MRI revealed cortical atrophy, in the inferior cranial fossa in particular, along with vasogenic lesions. The consulting psychiatrist diagnosed him with organic personality disorder. Due to his poor somatic status, the prisoner's sentence was interrupted for a period of seven years. He was discharged and referred to a palliative care facility.

In summary, the patient was hospitalised at departments of internal diseases for approximately three years out of five years and six months counted from the time of his incarceration to a decision to interrupt his sentence. Shortly after his incarceration began, he changed from a non-disabled person into a lying patient who did not make any contact with his surroundings and required constant care of other persons. Approximately two months after the decision to interrupt his sentence and place him in a hospice, the patient escaped from it on his own. As he reported later, he had no memory of the escape. He went into hiding for several months. During this time, he travelled around Poland and visited his children. He was caught while he was stealing at a luxury clothing store and re-incarcerated. According to the documentation, pseudodementia and pseudoneurological symptoms developed already two months after his re-incarceration: "the prisoner did not walk, was brought to the medical care unit on a wheelchair, did not speak but only gestured with the left upper limb". The patient was hospitalised at the department of internal diseases and at the department of neurology. His general condition was described as moderate. He was lying all the time, was cachectic, had generalised muscle atrophy and a grade 2 sacral and gluteal decubitus ulcer. Neurological examination again revealed persistent involuntary head tremors

and right-sided flaccid paresis. Head MRI performed under general anaesthesia showed minor vasogenic lesions in both hemispheres as well as inflammatory lesions in the left ethmoid region which according to the consulting neurologist “did not correlate with the clinical picture”. Due to the patient’s deteriorating somatic condition a decision to interrupt his sentence of imprisonment was made again and the patient was referred to the nursing care facility in the aforesaid condition. At the same time, the date of forensic psychiatric assessment was set. On the 10th day the patient escaped from the facility. He climbed out of the window at night, slid down the roof and jumped from the first floor to the yard.

After re-incarceration the order of events was the same as before. In a short time, his condition started to deteriorate; for a period of two years of imprisonment the patient was hospitalised and diagnosed at the department of internal diseases and department of neurology for six months. Examination results failed to provide an explanation about the patient’s condition. Having escaped from the nursing care facility, the patient travelled around Poland for a few days, visiting his family. Afterwards he reported to the forensic psychiatric assessment on the day set.

Upon admission to the assessment the patient was conscious, showed autopsychic and allopsychic orientation; he was calm and his mood and drive were stabilised. The affect was irritable and his statements were diffuse, elaborate and overly detailed. Speech articulation was normal, but the speech itself was slightly slowed down. No disturbances of short – and long-term memory were noted but the patient reported that there were times in the past when he had no memory of things. He had difficulties with explaining in detail how he was brought for a follow-up after discharge from the previous hospital. He presented with no psychotic symptoms. The patient denied having sleep disorders and suicidal thoughts. He assessed his well-being as good and claimed that “it does not impair his speech”. The patient complained of difficulties in walking because of knee pain, biliary colic secondary to cholelithiasis and reflux. He stated that he had “diffuse hemangiomas in the form of a tumour in his head”. He asked for specific dietary supplements, the names of which he listed on his own, analgesics and “some pills for mobility problems”. He mentioned memory gaps lasting for several years which took place during his incarceration. The patient was agitated because he could not remember how he ended up in the hospital (“I am upset because I remember almost nothing from being discharged from the [previous] hospital to being admitted here”). He claimed that he did not remember escaping from the hospice and nursing care facility. Because of reported knee pain, his condition was consulted with an orthopaedist. Chondromalacia patellae due to prolonged lack of movement was diagnosed. Physical examination revealed muscle loss and a vast scar in the sacral and gluteal region, being a remnant of the decubitus ulcer.

During the first two weeks of the forensic psychiatric assessment the patient was walking using crutches and then he started to walk on his own. No neurological deficits were observed. EEG and ECG were normal. During his hospital stay he periodically showed signs of emotional lability and irritability of organic background. He did not

require pharmacological treatment. He wanted to leave the ward to have a walk at the hospital's premises. When he was refused, he reacted with anger and did not accept any arguments (e.g. "if I am not passed to leave, I will not stay longer at the hospital after the follow-up", "no one will tell me what to do!"). He made contact with other patients and made them laugh. The patient actively spent time – he exercised, read, watched TV and was interested in the news. He eagerly participated in all the tests and was rather conformable and cooperative.

The following tools were used in the psychological diagnostics: *Wechsler Adult Intelligence Scale* (WAIS-R), *Benton Visual Retention Test* (BVRT), *Bender Visual-Motor Gestalt Test* (BVMGT), *Verbal Learning Test 10* by Luria, *Minnesota Multiphasic Personality Inventory* (MMPI-2), *Rorschach test* (ROR) and psychological history taking. Answers obtained in neuropsychological tests indicated organic lesions within the CNS. In the *Benton Visual Retention Test* the patient made seven errors per one acceptable error (these errors mainly involved perseverations, followed by rotations, one distortion and misplacement). In the *Wechsler Adult Intelligence Scale*, he demonstrated intelligence above average. A large discrepancy between results achieved in the verbal and non-verbal scale also indicated damage within the CNS. The poorest results were obtained in the *Letter-Number Sequencing subtest* (it assesses operating memory, pace of work and learning new material, visual-motor coordination, cognitive style) and *Picture Completion subtest* (it assesses social knowledge, understanding of complex social situations, anticipating, planning, cause-and-effect thinking). Based on answers obtained in the *Minnesota Multiphasic Personality Inventory* (MMPI-2) it was concluded that the patient "represses hostile and aggressive impulses. He does not associate himself with socially recognised values. He lacks the ability to use experience and predict effects of certain social behaviours". Scale results were increased, which made it impossible to interpret the results in an unambiguous manner. In the *Rorschach test* the patient gave very few answers, which also did not allow a full analysis of the psychogram, and most likely was a manifestation of passive resistance to the test. Based on a conversation with the patient and results obtained in the MMPI-2 and ROR, the psychologist concluded that he shows signs of an anti-social personality and a tendency towards conversion disorders in stressful situations.

Conclusions

The presented case report describes a patient with a nearly identical pattern of symptoms, which occurred twice, based on which GS may be diagnosed. This rare disorder is most often diagnosed during forensic psychiatric assessments. GS occurs in a temporal relationship with various stressful situations (e.g. incarceration). Therefore, possible simulation should always be taken into consideration during differential diagnosis. Simulation involves a conscious and fully controlled production of physical or mental symptoms by given person. It is an intentional action aimed at obtaining secondary, strictly defined benefits (e.g. avoiding incarceration). There are no unam-

biguous criteria for diagnosing simulation. However, patients most often simulate single symptoms, the ones related to cognitive impairment in particular. A tendency of displaying symptoms, behaviour duality towards various persons and inconsistency of presented symptoms are emphasised [33]. The patient described above had numerous symptoms, both mental and physical ones. His behaviour was relatively invariable, persisted for years and led to significant somatic consequences associated with strong pain (grade 2 decubitus ulcer).

As indicated above, diagnostic criteria of GS are imprecise and its classification has been changed over the years. The main controversy centres on classification of this syndrome. Should it be classified as a factitious disorder or as a dissociative disorder?

According to ICD-10 a factitious disorder is classified as a personality disorder. It consists in deliberately producing or feigning mental or physical symptoms of a disease, without controlling the need to evoke them. It is emphasised that in this case the aim of the patient's behaviour is not to achieve specific benefits, e.g. legal or economic ones. Most often a borderline personality disorder (more often in women) or an anti-social personality (more often in men) are seen as underlying cases of a factitious disorder. Malingering most likely results from willingness to take on "the role of a sick person" and thus receive attention and care from others. As far as aetiology is concerned, patients feel an uncontrolled need to produce symptoms over which they have complete control, to transfer aggression towards a symbolic carer and to defend themselves against loss. This disorder manifests itself mainly in patients in their third decade of life and is more frequently noted in women. Most of all it affects persons with high social and professional status, who most often are health care professionals. The history frequently reveals abuse or abandonment in early childhood. In most patients factitious disorder is not chronic and recurs in episodes. The literature lists three major signs of factitious disorders: pathological lying, recurrent episodes of malingering and reporting to various medical facilities, which results from attempts made to constantly hide the fact that the symptoms are not true.

It has to be emphasised that patients with this diagnosis often undergo many diagnostic procedures and even surgery due to their "disease", which may indicate an increased pain threshold. Five subtypes are distinguished: with predominantly physical signs and symptoms, with predominantly psychological signs and symptoms, with combined psychological and physical signs and symptoms, Münchhausen syndrome, and Münchhausen syndrome by proxy. Some authors consider Ganser syndrome to be a subtype of factitious disorder with predominantly psychological signs and symptoms [34].

Dissociative disorders in ICD-10 are classified together with conversion disorders. They result from loss of integration between memories, sense of one's identity, direct impressions and control of intentional movements. Conscious control over these processes is then limited. Conversion refers to transformation of unpleasant feelings resulting from unresolved internal conflicts into a physical symptom. The American

Psychiatric Association separates conversion from dissociation and classifies it as a somatic symptom disorder. A clear temporal relationship between the symptoms and strong stressor should be demonstrated in order to diagnose a dissociative or conversion disorder. Symptoms may appear and subside suddenly but usually they last from several weeks to several months. The disease may also be chronic. The following disorders are classified to the category of dissociative (conversion) disorders: amnesia, fugue, stupor, trance and spirit possession, dissociative movement and sensory disorders, and dissociative convulsions [31]. In the light of present knowledge, it seems appropriate to classify GS, which apart from typical approximate answers may also manifest with a number of dissociative symptoms in a stressful situation, into the category of other dissociative (conversion) disorders. *Nota bene* such classification of GS directly follows the approach developed by S. Ganser.

In the case described, there is a clear temporal relationship between a strong stressor (incarceration) and onset of symptoms. Remission was spontaneous both at the first and second episode of the disease and occurred shortly after the decision to interrupt the incarceration. The disorder was chronic and recurrent. Diagnostic (including imaging) tests excluded somatic disorders that could cause the patient's symptoms. During periods when GS occurred, the patient did not control physiological functions and his body was subject to cachexia, which resulted in invalidity. This would not occur in the case of simulation. In the case described, one should note a significant resistance to pain resulting from long-term immobilisation which led to decubitus ulcers, atrophies, contractures and overall cachexia.

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Address: Tadeusz Nasierowski
Medical University of Warsaw
Department of Psychiatry
Nowowiejski Hospital
00-665 Warszawa, Nowowiejska Street 27
e-mail: tadeusz.nasierowski@psych.waw.pl