

Nursing a Patient with Nonepileptic Seizures — Case Report

Pielęgnacja pacjenta z nieepileptycznymi napadami — opis przypadku

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Abstract

Introduction. Differentiation of epileptic seizures from psychogenic nonepileptic seizures (PNES) is problematic and leads to wrong diagnosis. It is estimated that among patients diagnosed with epilepsy, as many as 20–40% suffered from pseudo-epileptic seizures. Misdiagnosis is associated with a delay in the implementation of appropriate treatment, complications following unnecessary treatment, worse functioning of the patient, high costs of care and unemployment.

Aim. The aim of the study was to familiarise neuroscience nurses with the causes, symptoms, treatment and nursing care for a patient with PNES on the basis of the described case.

Case Report. Case study of a female patient with psychogenic non-epileptic seizures repeatedly treated in a psychiatric ward. Based on an interview with the patient, analysis of the medical documentation, direct and indirect observation of the patient, problems with nursing were identified and a care plan was established.

Results. The depicted patient was admitted to a psychiatric ward due to suicidal intentions, decreased mood and epileptic attacks of unknown aetiology. The patient was struggling with numerous psychosocial problems, which required high professional and ethical competences. The patient has been diagnosed with the following care problems: reluctance to undergo video EEG examination, abdominal pain, isolation of the patient in the ward, risk of suicide, risk of injury.

Conclusions. The nursing interventions undertaken with respect to the patient turned out to be effective. Improvement in psychosocial functioning was achieved and the patient did not attempt suicide during the crisis. Thanks to the interdisciplinary cooperation, it was possible to confirm the non-epileptic nature of the seizures, and the patient was discharged with therapeutic recommendations (pharmacotherapy, psychotherapy, visits to a mental health clinic). (JNPN 2021;10(1):35–41)

Key Words: case study, differential diagnosis, non-epileptic seizures, nursing care

Streszczenie

Wstęp. Różnicowanie napadów padaczkowych od psychogennych niepadaczkowych napadów (PNES psychogenic nonepileptic seizures) jest problematyczne i prowadzi do postawienia złej diagnozy. Szacuje się, że wśród chorych z rozpoznaną epilepsją, aż 20–40% miało w rzeczywistości napady rzekomopadaczkowe. Błędna diagnoza wiąże się z opóźnieniem wdrożenia właściwego leczenia, powikłaniami z błędnego leczenia, gorszym funkcjonowaniem chorego, wysokimi kosztami opieki i bezrobotności.

Cel. Celem pracy było zapoznanie pielęgniarek neurologicznych z przyczynami, objawami, leczeniem i opieką pielęgniarską nad chorą z PNES na podstawie opisanego przypadku.

Opis przypadku. Studium przypadku pacjentki z psychogennymi napadami niepadaczkowymi leczonej wielokrotnie na oddziale psychiatrycznym. Na podstawie wywiadu z chorą, analizy dokumentacji medycznej, obserwacji pośredniej i bezpośredniej chorej rozpoznano problemy pielęgnacyjne i ustalono plan opieki.

Wyniki. Opisaną pacjentkę przyjęto na oddział psychiatryczny z powodu zamiarów samobójczych, obniżonego nastroju i ataków epileptycznych o nieznaną etiologię. Pacjentka borykała się z wieloma problemami natury psychospołecznej, których rozwiązanie wymagało wysokich kompetencji zawodowych i etycznych. U chorej rozpoznano następujące problemy pielęgniarstwa: niechęć do poddania się badaniu wideo EEG, bóle brzucha, izolacja chorego na oddziale, ryzyko samobójstwa, ryzyko urazu.

Wnioski. Interwencje pielęgniarские podjęte wobec chorej okazały się skuteczne. Uzyskano poprawę w zakresie funkcjonowania psychospołecznego, chora nie podjęła próby samobójczej w czasie kryzysu. Dzięki współpracy interdyscyplinarnej udało się potwierdzić nieepileptyczny charakter napadów, a chorą wypisano z zaleceniami terapeutycznymi (farmakoterapia, psychoterapia, wizyty w poradni zdrowia psychicznego) do domu. (PNN 2021; 10(1):35–41)

Słowa kluczowe: studium przypadku, diagnostyka różnicowa, nieepileptyczne napady, opieka pielęgniariska

Introduction

Psychogenic nonepileptic seizures (PNES) are time-limited seizures characterised by motor, sensory, behavioural and consciousness disorders that resemble epileptic seizures, but have no organic cause. Additionally, there are no changes in the electroencephalogram (EEG) [1]. PNES belong to the spectrum of dissociative disorders associated with past traumatic experiences, which result in a “total or partial loss of correct integration between memories from the past, sense of self-identity, direct sensations and control of any body movements” [2]. The prevalence of the disorder in the population is estimated at 2–33/100,000 people per year [3]. Women become ill three times more often than men, and the beginning of the disease usually occurs after puberty [4]. Such patients are met with reluctance from the healthcare workers, who underestimate their condition, accuse them of “pretending to have a seizure” or label them as “frauds” [5]. Stigmatising patients by healthcare workers is unethical, unprofessional and negatively affects the quality of provided medical care [6]. Assigning a patient with an unacceptable and stigmatising trait leads to lower motivation in seeking help and active participation in therapy [6,7]. The resemblance of symptoms to epilepsy, lack of knowledge and negative attitudes of staff towards patients with PNES delays diagnosis by up to 7 years from the first symptoms [3–5,8]. This leads to implementation of unnecessary, costly treatment, exclusion from the labour market, social isolation and deterioration of the patient’s mental health [5,8]. Early PNES diagnosis results in a reduction in the number of seizures within 6 months, leads to a decrease in the costs of medical care by 84% (diagnostics, medical procedures) as well as to healthcare relief (reduction in the number of emergency room visits by 97%, decrease in outpatient visits by 80%) [9].

The causes of PNES are individualised and multifactorial. The most crucial factors include traumatic experiences during childhood (violence, sexual abuse, emotional neglect, loss of a loved one), personality disorders (borderline personality), head injuries, benefits resulting from taking the role of a sick person (compassion, exemption from social roles, financial gratification). When confronted with stressful situations, patients with PNES subconsciously integrate an epileptic seizure [8,10]. This way they learn that an epileptic seizure protects

them against unpleasant emotions. Thus, a seizure is a defence mechanism in patients, who cannot solve their problems otherwise.

The golden standard in the diagnosis of PNES is performing a 24-hour EEG with video recording, in which there are no changes before, during and after the attack, as well as verification of typical behavioural symptoms (Table 1) [8,9]. Recordings of seizures done by the family (specificity — 97.5%) and the assessment of the prolactin level 10–20 minutes after the attack (elevated levels in epilepsy) are helpful in the diagnosis [8,9]. Medical imaging and laboratory tests should be preceded by an interview with the patient, during which attention should be paid to their psychosocial situation. It is essential to identify factors aggravating the patient, e.g. traumatic experiences in the past, personality traits, relationships with relatives and frequent complaints about somatic symptom disorders. Studies have shown that over 82% of patients experienced trauma in their childhood, and from 40% to over 84% of patients were victims of sexual violence [9,10]. During the interview, over 44% of patients report craniocerebral trauma [11].

Patients with PNES are additionally burdened with other diseases. Researchers indicate that from 43% to 100% of patients are also diagnosed with mental disorders, such as anxiety and psychosomatic disorders, depression, post-traumatic stress disorder, personality disorders or intellectual disability [12]. 10% of patients are diagnosed with epilepsy, and 20% of patients commit suicide [4,13].

It is highly probable that a patient suffers from PNES if [8,9,12,14,15]:

- the previous seizures had a different course,
- the seizure triggered an emotional factor,
- the seizure usually takes place in the presence of witnesses,
- they possess medical training,
- they had contact with people suffering from epilepsy (in family, professionally),
- they have been a victim of physical, psychological, sexual violence or have been neglected in childhood,
- there is no response to treatment with anticonvulsants.

Therapeutic management is individualised and depends on the causes and course of the disease.

Table 1. Differentiating between nonepileptic and epileptic seizures [3,4,8,9,10,12,13,14,16,17,21,26]

Observation/Symptoms	PNES	Epilepsy
Trigger of seizure	Emotional or situational trigger, provoked by suggestion	Rare situational stress, often lack of sleep
Prediction of seizure	Increasing psychic tension, headaches	Typical aura, stereotypes, headaches after a seizure
Asynchronous limb movements, Pelvic movements (especially forward thrusting)	Often	Atypical
Side-to-side head movements	Often	Rarely
The pupillary light reflex	Preserved	No
Closed eyes during seizures	Tightly closed eyes, geotropic positioning of the knobs, resistance to the examiner's attempt to open the eyes	Rarely
Presence of a clenched mouth during a tonic spell	Occasionally	Rarely
Biting the tongue	Occasionally, more often the tip of the tongue	Very rarely the tip of the tongue, more often the side of the tongue
Breath	Often normal breathing or short apnea without cyanosis, no postictal deep noisy breathing	Apnea, often cyanosis, postictal deep noisy breathing
Grabbing during a seizure	Rarely	It occurs in temporal and frontal epilepsy
Rubbing the nose after a seizure	No	It occurs in temporal epilepsy
Incontinence of urine and stool	Rarely (mainly in victims of sexual violence)	Occurs
Ictal vocalisations	Rarely swearing, profanity, insults, shouting, crying, speaking in a whisper after a seizure	Very rarely, indefinite sounds, no whispering after a seizure
Amnesia	Partial after a seizure	Global after seizure
The length of the seizure	Prolonged seizures (duration more than 3 minutes), abrupt ending	2–3 minutes
EEG	Mostly no EEG changes	Changes in EEG, no changes in frontal seizure
Fall during seizure	Controlled, serious injuries are rare	An uncontrolled fall, often results in an injury
The seizure while sleeping	No	Yes
The patient reports many ailments of unclear etiology, has undergone invasive examinations, psychiatric treatment, has been a victim of violence in the past	Often	Rarely
Higher postictal prolactin levels	No	Yes
The patient has plush toys with him	Often	Atypical
How the patient describes the seizure	Reluctantly talks about the attack, focuses on the consequences of the attack and the situation that caused it, does not remember previous attacks	The patient describes in detail the symptoms, feelings before and during the attack, can recall the first attack or a specific course

The following are useful in the treatment of PNES [7,16,17]:

- cognitive behavioural therapy assumes that thoughts, emotions and behaviours interact with each other, creating not always appropriate patterns of behaviour. People suffering from PNES learn to recognise and become aware of their emotions, causes of anxiety and avoidance behaviours (seizures) and how to correct them,
- prolonged exposure therapy is aimed at confronting and working through traumatic situations causing fear in the patient and making them aware that seizures are an ineffective strategy for coping with fear.

Depending on the needs, psychotherapy can be extended to family therapy, hypnosis and pharmacotherapy.

It depends on a range of factors. Clear provision of the diagnosis and explanation of the causes of the disease lead to the cessation of attacks in 30% of cases [9]. More than 40% of patients remain unable to work and live independently for a long time [10]. 4 years after diagnosis, 71% of patients still experience seizures [16]. It is alarming that over 40% of patients continue to take anticonvulsants despite the lack of indications [16]. Early diagnosis of PNES, and therefore a shorter period of burdening the patient with a diagnosis of epilepsy, younger age, better education and a supportive social environment (lack of excessive control by the family, empathy of the medical staff) lead to recovery in about 70% of patients [9,10,16,17]. An adverse course of the disease can be expected in patients with comorbidities such as epilepsy, depression, personality disorders, history of sexual abuse and late diagnosis [10,16,17].

The aim of the study was to familiarise neuroscience nurses with the causes, symptoms, treatment and nursing care for a patient with PNES on the basis of the described case.

Case Report

The patient, a 30-year-old female, unmarried, childless, works part-time as a saleswoman, admitted to a psychiatric ward because of depressive disorders and suicidal thoughts. Life parameters within the norm, no diagnosed somatic diseases, normal body weight. She has been treated for epileptic seizures for ten years. She was repeatedly hospitalised in neurological wards because of epileptic seizures not amenable to pharmacotherapy. For two years, the diagnosis of epilepsy in the patient has been questionable; however, due to the patient's lack of cooperation, it was impossible to finally exclude epilepsy. During her childhood, she experienced her

mother's death, and at school she was bullied because of her shyness. The first epileptic seizures started when her father met a new partner, whom he married. The patient did not want to accept this relationship, claiming that it was a betrayal of her dead mother.

From April to August 2019, during hospitalisation, the patient experienced 7 seizures. The nursing observation, interview and nursing records show that seizures were preceded by a telephone conversation with her father or his visit. The seizures were usually documented as follows: "(...) the patient slid down the wall in the corridor, then fell to the floor, her eyes were closed and she was moving her head, her hands were straightened and tense. The doctor was informed. The seizure stopped after 5 minutes without benzodiazepine treatment, no injuries"...

"During lunch in the canteen, the patient fell off the chair, began to tremble, moved her hips, she had her eyes closed, her lips tightened"...

The patient was at high risk of attempting suicide, which was estimated by an interdisciplinary team on the basis of the current hospital scales.

The patient often complained of abdominal pain, which was a response to stress. The patient felt unaccepted by the surroundings due to epileptic attacks. She isolated herself from other patients, was reluctant to take part in group activities, and talked only to some nurses.

The patient underwent a 24-hour EEG with video recording. No changes were detected in the record. The results of basic laboratory tests, including prolactin levels, did not deviate from the norm. The patient participated in psychotherapy, which "allowed her to relax and accept her own feelings".

Problem 1: Patient's Reluctance to Undergo Video EEG Examination

Purpose of nursing care: The patient will undergo the EEG examination and adapt to its requirements.

Nursing interventions:

1. Conversation with the patient and determination of the reasons for reluctance to undergo the examination.
2. Explanation of the purpose and course of the examination (the patient must be in a room that she cannot leave, the EEG recording will be conducted for 24 hours and the patient's behaviour will be monitored).
3. Enabling contact with a doctor, who will explain further doubts related to the examination to the patient.
4. Informing the patient about physical preparation for the examination (washing hair, not using gel and hairspray, taking or stopping medications

according to doctor's recommendations, consumption of meals and decaffeinated fluids).

Assessment: After speaking to the nurse and the lead physician, the patient accepted the inconveniences resulting from the examination course and underwent the procedure.

Problem 2: Abdominal Pain Caused by Stressful Situations on the Ward, e.g. Patients' Loud Behaviour

Purpose of nursing care: Alleviating the pain by reducing environmental stressors and teaching the patient effective ways of coping with stress.

Nursing interventions:

1. Establishing contact with the patient in order to determine the causes of the ailments.
2. Preliminary assessment of the pain in terms of somatic causes and, if necessary, informing the doctor.
3. Enabling the patient to express the experienced emotions through active listening.
4. Providing the patient with a sense of mental security by ensuring a constant presence of staff, who "control the situation on the ward".
5. Isolating the patient from stress factors, e.g. staying in a quiet room.
6. Offering the patient a warm drink or a warm bath.
7. Assessment of the patient's knowledge about coping with stress and teaching relaxation techniques.

Assessment: The patient initially complained about other patients' behaviour and lack of sense of security on the ward, which resulted in abdominal pain. With the support from the nursing staff, she learned how to deal with stress, which decreased the frequency of the reported pain.

Problem 3: The Patient's Isolation on the Ward Caused by the Feeling of Lack of Acceptance from Patients and Staff

Purpose of nursing care: The patient will establish relationships with other patients.

The patient will develop the ability to establish and maintain contacts.

Nursing interventions:

1. Establishing contact in order to jointly determine the causes of the problem.
2. Avoiding the use of terms such as "pseudo attack, hysterical attack" during the conversation.
3. Helping the patient understand the reasons for the lack of acceptance from the environment, e.g. the lack of knowledge about the disease, fear of the unknown.

4. Frequent conversations with the patient, getting to know them better, showing understanding and acceptance.

5. Encouraging the patient to participate in group activities, e.g. ergotherapy, eating together in the canteen, walking in a group.

6. Placing the patient in one room with a person with similar interests.

Assessment: The patient took part in group activities and became friends with one person.

Problem 4: The Risk of Suicide Caused by Depressive Disorders, Lack of Meaning in Life and Loneliness

Purpose of nursing care: Suicide prevention.

Nursing interventions:

1. The assessment of suicide risk using Nurses' Global Assessment of Suicide Risk (NGASR) scale.
2. Monitoring factors that may influence the suicide attempt, changes in behaviour, etc. using the Suicidal Patient Observation Chart (SPOC).
3. Ensuring safety by collecting dangerous objects from the patient (cables, shavers, shoelaces, medicines).
4. Discreet observation of the patient, making a ward round at night, control of the oral cavity following drug administration.
5. Conclusion of a therapeutic contract with the patient, obliging her to inform about any suicidal intentions.
6. Constant readiness of the nurse to help the patient in crisis times (conversation, contact with another specialist, administration of tranquilisers).
7. Using active listening techniques, avoiding asking questions starting with "why", not judging the patient's behaviour, which will allow her to speak openly about emotions.

Assessment: The patient did not attempt suicide. In times of crisis, the undertaken actions turned out to be sufficient.

Problem 5: Injury Risk from Falling During an Attack

Purpose of nursing care: Ensuring physical security during an attack.

Nursing interventions:

1. Observation of the patient during an attack.
2. Removing dangerous objects from the immediate surroundings, placing something soft under the head.
3. Evacuation of other patients from the room.
4. Not holding the patient during an attack, not putting objects in the mouth.

5. Informing the patient about any activities requiring body contact.
6. Assessment of the patient's physical condition in terms of possible circulatory and respiratory problems (control of breath, skin pigmentation) as well as injuries.
7. Informing the doctor about the seizure.
8. Documentation of nursing activities along with a detailed description of the seizure.

Assessment: The patient did not suffer any serious injuries and complications, which posed a threat to health and life following the seizure.

Discussion

Patients with PNES are a real challenge to the health service. The literature reveals that up to 40% of patients admitted to neurological departments because of epilepsy actually experience non-epileptic seizures [1], and 23% have been misdiagnosed with status epilepticus requiring intensive neurological care [18].

Psychosocial problems lead to suicide attempts in every fifth patient [19]. The described patient was admitted because of suicidal intentions. Nursing measures in the form of suicide risk assessment and suicide prevention were undertaken.

Another important problem during the patient care were frequent seizures, which could pose a threat to health and life. Nursing procedures undertaken during a seizure of a patient with PNES do not differ from those undertaken during an epileptic seizure due to the inability to exclude an organic cause [15]. Although most patients with non-epileptic seizures do not lose consciousness during an attack, 50% of them suffer injuries, most often in the form of skin abrasions and tongue biting. The intervention described above complies with the principles of nursing care based on scientific evidence and saved the patient from injuries [20]. It should be noted that during the event, one should not comment on the course of the attack (most patients can hear during the attack) and remove unnecessary people from the environment. Excessive concentration of staff on the attack and the presence of an "audience" lead to an increase in the intensity of the attack and additionally strengthen the feeling of the disease [21].

A major problem during the care of the patient was isolation due to the lack of acceptance of her disease by others. The lack of acceptance of the disease by the environment is confirmed in the literature. 30–50% of neuroscience nurses view PNES as a "fake seizure" [22,23]. A significant proportion (48%) of other healthcare workers consider PNES attacks as "false". Educating nurses dramatically changed their attitude towards patients with PNES and had a positive impact

on the quality of care [23]. The accepting attitude of staff, who perceive a person not only as being ill, is crucial in the therapeutic relationship and allowed the patient to openly talk about her emotions as well as to establish interpersonal relationships more easily.

The patient was reluctant to undergo an EEG video examination due to inconvenience (the need to be admitted to another hospital, being observed by others). A large proportion of patients with PNES stop the examination or do not undertake further treatment. This is associated with a high susceptibility to stress and the inability to relieve it, low level of motivation and concentration, emotional instability [3,24]. Mobilising the patient to undergo the examination required establishing therapeutic contact and gaining trust. The therapeutic communication consisting of reflecting the patient's feelings and subjective approach during the patient's stay resulted in decreased fears and reduced reluctance to undergo the examination.

The patient often complained about abdominal pain. Pain was typically preceded by stressful situations the patient encountered during hospitalisation. These observations are consistent with the available literature. In the large majority of patients with PNES, everyday life stress manifests itself in the form of somatic disorders. Patients often report headaches and abdominal pain, which may become chronic over time [18,25]. Over 76% of PNES patients are prescribed strong painkillers [26].

Distracting the patient from stressful situations through conversation, participation in occupational therapy, increasing physical activity and learning how to relieve stress independently (deep breathing, visualisation — focusing on a previously seen pleasant image), led to the reduction of pain complaints.

Conclusions

The care of the patient diagnosed with PNES required interdisciplinary cooperation. Nursing problems had a psychosocial dimension. The undertaken nursing interventions turned out to be an effective solution to the patient's problems. Through nursing activities, it was possible to improve the patient's quality of life, ultimately exclude epilepsy, and discharge her home with new therapeutic recommendations. Concurrently, it should be emphasised that proper nursing care for patients with PNES requires education of the nurses about the disease. Lack of knowledge about the disease can lead to the reproduction of inappropriate attitudes among medical staff.

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Conflict of Interest: None

Funding: None

Author Contributions: Piotr Wojda^{A-C, E-H}

A — Concept and design of research, B — Collection and/or compilation of data, C — Analysis and interpretation of data, E — Writing an article, F — Search of the literature, G — Critical article analysis, H — Approval of the final version of the article

Received: 29.12.2020

Accepted: 20.03.2021