Psychogenic non-epileptic seizures and psychoanalytical treatment: results

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Summary

Background: the occurrence of psychogenic non-epileptic seizures (PNES) is estimated to be between 2 to 33 cases in every 100,000 inhabitants. The number of patients with PNES reaches 19% of those treated as epileptics. Patients with PNES are treated as if they had intractable epilepsy, with unsatisfactory results even after medication treatment is used to its maximum. The aim of this study is to present the effects of individual psychoanalytical treatment in patients with PNES, assessing its impact in the evolution of the clinical picture and its association with sex, time of disease, social, psychological and professional harm, as well as going through with treatment.
Methods: The case base was composed of 37 patients with PNES. The diagnosis was reached with video-EEG monitoring. Psychoanalytical treatment was carried out through 12 months of weekly sessions timed for around 50-minutes each, in a total of 48 individual sessions.
Results: This study found a high rate of success in the treatment of PNES patients. 29.7% (n=11) of patients had cessation or cure of symptoms and 51.4% (n=19) had a decrease in the number of episodes. There is an association between cessation or decrease in the number of episodes and sex ($p<0.01$), religion ($p<0.01$) and concluding treatment ($p<0.01$).
Conclusion: Individual psychoanalytical treatment applied to patients with PNES is considered effective and can be an essential form of assistance for the reduction or cessation of episodes.

Keywords: psychogenic non-epileptic seizures, conversion disorder, psychoanalysis, treatment.

Introduction

Psychogenic symptoms are common in medicine. Conservative estimates consider that around 10% of patients in medical services have psychogenic symptoms. In the neurological clinic they represent 9% of patients admitted to hospital, and probably a higher percentage of patients seeking outpatient services. Symptoms such as paralysis, mutism, visual and sensory disorders, movement and balance problems, as well as pain represent a challenge in establishing a diagnosis and treatment. The exception is psychogenic non-epileptic seizures (PNES): the diagnosis is clearly of psychogenic symptoms and treatment must be psychological.

Recognized as a public health problem,[1] PNES may be defined as episodes of changes in movements, sensations or experiences similar to epilepsy caused by psychological process not associated with cerebral electrical discharge.[2] Its prevalence in the general population is difficult to calculate given that it is underreported and an accurate diagnosis is difficult to perform. Thus, there is great variation in the presentation of these rates, between 2 and

33 per 100,000 inhabitants. PNES rates correspond to approximately 5% of patients with an epilepsy diagnosis.[3]

It is estimated that between 10 and 58% of patients seeking care at epilepsy centers in tertiary hospitals do not present epilepsy.[3] One in every 4 or 5 patients referred for video-EEG monitoring diagnosed with intractable epilepsy will not have this diagnosis confirmed, and the majority will present PNES.[4]

The difficulty in the diagnosis results from the similarity with epileptic seizures, the diversity in the manifestation of these seizures, and the changes found in the electroencephalogram.[5,6] Patients with PNES before the correct diagnosis - which can take decades - are treated as having refractory epilepsy, using maximum doses of anticonvulsant drugs with risk of iatrogenic complications; and will pass through 6 emergency units on average in the six months prior to the correct diagnosis[7] as well as admission to ICUs, resulting in redundancy in diagnostic imaging and laboratory tests. These factors result in significant economic losses for the patient, the family and health services. As a result, the quality of life of patients with PNES and the unemployment index (22-23%) are worse than those encountered for patients with epilepsy.[8,9] These conditions experienced over the years of treatment and without therapeutic results lead the patient to seek out government programs for financial assistance, such as disability benefit and even disability retirement. Thus, the economic impact of PNES is immeasurable. It derives from direct costs of diagnostic assessment, interventions, laboratory tests, ineffective use of anticonvulsants and hospital admissions, and indirect costs related to loss of employment by the patient and family/caregivers.[10]

The "gold standard" diagnosis should be performed with simultaneous recording of clinical manifestations (video) and electroencephalogram,[11] and is indicated for all patients with frequent seizures despite the use of prescription drugs.[12] In possession of the results of the recording, together with a good neurological and psychiatric history, the diagnostic uncertainty (epilepsy *versus* PNES) is usually answered, with the PNES diagnosis holding a high level of reliability.[13] However, video-EEG monitoring is only available in large healthcare centers.[14,15]

Various treatments for PNES patients have been reported in the literature: biofeedback,[16] hypnosis,[17] acupuncture,[18] transcranial magnetic stimulation[19] and psychotherapy.[2,5,20,21,22,23,24] Nevertheless, the amount of studies encountered with a focus on psychological treatment is limited.[20]

A study[25] conducted with the purpose of verifying the method considered most effective in the treatment of PNES by health professionals showed that 91% of these professionals would prefer psychotherapy. Prigatano et al.[21] assessed the effectiveness of a psychotherapeutic intervention and verified the importance of individual therapeutic work.

Psychoanalyst Kalogjera-Sackellares,[26] defines post-traumatic PNES as a response to a traumatic experience or experiences, which the patient was unable to elaborate owing to the inability of their psychological resources. In developmental PNES, seizures are not considered as a result of a single trauma or even a chronically traumatic life, but rather a difficulty in dealing with large and complex vital tasks for psychosocial development, such as the passage from adolescence to life as an adult.

Specifically in cases of patients who have conversive symptoms, the search for the unconscious factors related to the symptom is the route used to allow the conflict to be made conscious and find another route to its symbolic manifestation, mainly through words, making violent release through aggressiveness to the body unnecessary.

This study is justified given that patients with PNES are treated as having refractory epilepsy, reaching the maximum level of drug treatment (use of anticonvulsants and psychotropic drugs) without obtaining satisfactory results in the reduction of seizures and improving quality of life, resulting in burdensome hospital costs and causing immeasurable losses in the personal, family and social life of such patients.

Therefore, the objective of this study is to report on the effects of individual psychoanalytical treatment in PNES patients in order to evaluate the clinical development of PNES and verify its association with gender, seizure time, social, emotional and professional losses, as well as the end of treatment. The reduction or cessation of convulsive seizures was used as the criteria for effectiveness in the presentation of quantitative data from the results obtained.

Methods

This is a prospective longitudinal study, with design and Informed Consent form approved by the institution's research ethics committee (CapPesq nº383/04).

Patients

The selection of cases consisted of all patients referred for outpatient psychoanalytic treatment, consecutively,

in the period from 2004 to 2007, by the Epilepsy Group at the tertiary university hospital.

All patients referred had a PNES diagnosis conducted via video-EEG monitoring. The professionals conducting the video-EEG communicated the diagnosis to the patient and recommended the cessation of anticonvulsants, except in cases where the patients had concomitant epilepsy and PNES. The patients included reported that they were not undertaking concomitant psychiatric treatment. No patient presented structural alterations in the neuroimaging exam. The patients diagnosed with concomitant epilepsy and PNES had idiopathic epilepsy syndromes. All of the patients participating in the study, including those who were diagnosed with PNES through EEG-video monitoring, had been treated as though they had refractory epilepsy prior to the exam.

11 of the 48 patients referred (2 males and 9 females) did not accept the PNES diagnosis and psychoanalytical treatment and were excluded from the study. Therefore, the data presented relates to 37 patients, with 27% (n=10) having a diagnosis of concomitant epilepsy and CNEP.

Table 1 shows the demographic characteristics of the 37 patients that participated in the study.

TABLE 1 Demographic data of the 37 patients included in the study, collected before the start of treatment

Number of patients	**n=37**
Age, years	
Median (Q1 – Q3)	32 (22 – 43)
Minimum - Maximum	11-59
Years of seizures	
Median (Q1 – Q3)	8 (2 – 17)
Minimum - Maximum	0.4 – 45
Marital status	
Married	15 (40.6%)
Single/separated	22 (59.4%)
Religion	
Buddhist	2 (5.4%)
Catholic	13 (35.2%)
Spiritists	8 (21.6%)
Evangelical	7 (18.9%)
Not informed	7 (18.9%)

The following instruments were used to analyze the material present in the psychoanalysis sessions:

a. Initial interview script, aiming to collect information such as: age; marital status; education; occupation; religion; personal income and family income; seizure frequency; time of onset of seizures; what the patient thought caused the seizures; losses resulting from seizures; reaction to referral for psychoanalytic treatment; and expectations regarding treatment.

b. Script for elaboration of the psychoanalytic diagnosis: ways the patient reacts in relation to situations that cause anxiety; defensive strategies; symbolic resources; the symptom as "compromise formation" between conscious and unconscious forces.

c. Diagnostic interview sessions: between 3 and 4 preliminary interviews were conducted to elaborate the psychoanalytic diagnosis.

d. Psychoanalytic treatment sessions: individual clinical care consultations with a weekly frequency, lasting about 50 minutes, face to face, and with a total duration of 48 sessions over 12 months.

e. Finalization interview script: applied at the end of treatment with the objective of investigating: ease and difficulty in following treatment; what changed after treatment; frequency and intensity of seizures compared to the start of treatment.

The clinical data from the services were collected according to the psychoanalytical framework, through clinical reports on sessions. The sessions were not recorded so as not to interfere in the result. The transcription of the sessions was performed from memory. This data was systematically discussed at clinical meetings with the professional responsible for the project, with the objective of systematizing the organization of the material collected and enabling greater accuracy in the identification and classification of the characteristics of the participants, as well as achievement of the proposed objectives.

Statistical analysis

Clinical cases were taken on with their particularities and treated individually. However, for quantitative presentation of the results, indicators were created for pre- and post-psychoanalytic treatment evaluation.

The results encountered are presented in the form of means, medians, standard deviations, absolute and relative frequencies. For the 2x2 tables, the Fisher exact test and the nonparametric Mann-Whitney test were used. To compare results in more than two groups, we used the nonparametric Kruskal-Wallis test. A significance level of 0.05 (al-

pha = 5%) was adopted. As such, descriptive levels (p) lower than this value were considered as significant (p<0.05).

Results

This study found a high rate of success in the treatment of patients with PNES: 29.7% (n=11) cessation/cure of symptoms and 51.4% (n=19) reduction in convulsive seizures.

Patients (n = 11, 100%) who refused psychoanalytic treatment attended the scheduling service in person and said they did not believe in the PNES diagnosis and would seek other medical services to continue treatment for "epilepsy".

When associating the results obtained after treatment, there was statistical significance between the variables: end of treatment (p<0.01); gender (p<0.01) and religion (p<0.01). Table 2 presents the results.

There was no statistical significance (p = 0.06) in the association between end of treatment and seizure time, according to the data presented in Table 3.

TABLE 2 Data distribution according to the association between development of PNES and end of treatment, gender, diagnosis, social losses, emotional losses, professional losses, welfare assistance, religion and age of the 37 patients included in the study

Variables analyzed	Evolution of the PNES clinical profile				p
	Stopped n=11	Reduced n=19	Not reduced n=7	Total n=37	
End of treatment					
No	2 (10.5%)	10 (52.6%)	7(36.8%)	19 (100%)	<0,01#
Yes	9 (50%)	9 (50%)	0	18 (100%)	
Gender					
Female	5 (17.2%)	18 (62.1%)	6 (20.7%)	29 (100%)	<0.01#
Male	6 (75%)	1 (12.5%)	1 (12.5%)	8 (100%)	
Diagnosis					**>0.99#**
PNES	14 (51.9%)	8 (29.6%)	5 (18.5%)	27 (100%)	
PNES + epilepsy	3 (30.0%)	5 (50.0%)	2 (20.0%)	10 (100%)	
Social losses					0.41#
No	3 (20.0%)	8 (53.3%)	4 (26.7%)	15 (100%)	
Yes	8 (36.4%)	11 (50.0%%)	3 (13.6%)	22 (100%)	
Emotional losses					**0.45#**
No	7 (41.2%)	7 (41.2%)	3 (17.6%)	17 (100%)	
Yes	4 (20.0%)	12 (60.0%)	4 (20.0%)	20 (100%)	
Professional losses					0.29#
No	5 (22.7%)	11 (50.0%)	6 (27.3%)	22 (100%)	
Yes	6 (20.0%)	8 (53.3%)	1 (6.7%)	15 (100%)	
Receiving welfare assistance (INSS*)					**0.90#**
No	7 (29.2%)	13 (54.2%)	4 (16.7%)	24 (100%)	
Yes	4 (30.8%)	6 (46.2%)	3 (23.1%)	13 (100%)	
Religion					<0.01#
Informed	11 (36.7%)	16 (53.3%)	3 (10.0%)	30 (100%)	
Not informed	-	3 (42.9%)	4 (57.1%)	7 (100%)	
Age (years)					0.93##
Median (Q1-Q3)	32 (14 – 47)	28 (21-43)	36 (24-43)		
Min - Max	Nov/59	13 - 58	18-45		

#Generalization of the Fisher Exact Test
Kruskal-Wallis Test
*Brazilian Social Security System

TABLE 3 Distribution of the 37 patients according to seizure time and end of treatment

	End of treatment			
Seizure time	**No**	**Yes**	**Total**	**p**
< 2 years	4 (50%)	4 (50%)	8 (100%)	0.06#
2 to 15 years	12 (70.6%)	5 (29.4%)	17 (100%)	
> 15 years	3 (25%)	9 (75%)	12 (100%)	
Total	19 (51.4%)	18 (48.6%)	37 (100%)	

#Generalization of the Fisher Exact Test

Discussion

The high rates of successful treatment of patients with PNES through the psychoanalytic method – leading to recovery from symptoms in 29.7% (n=11) and a decrease in 51.4% (n=19) – initially lead us to reflect on the association between PNES, 'major conversions' and psychoanalysis. Yes, PNES may be recognized as hysteria or a conversive syndrome; however, the common sense connotation of the term hysteria has become pejorative, with a change observed in the international diagnostic classification manuals.

Decreased sexual repression, detected as responsible for the onset of hysteria, led to a belief in the eradication of this condition. However, according to Hermann,[27] psychopathological items rarely disappear without a trace. The pathoplasty and frequency may change, but the symptoms do not disappear.[27] Thus, this does not mean proving the effectiveness of the psychoanalytic method, demonstrated by Freud within the academic scope more than a century ago. This means presenting the results obtained by means of the psychoanalytic method, consolidating that effective treatment begins with accurate diagnosis by the neurologist and correct referral to psychological treatment.

The analysis of the relationship among conversive crisis *versus* environmental function *versus* the function of the physician serves as the basis for analyzing the difficulties and resistances to psychoanalytic treatment presented by 22.9% (n=9) of the patients. These resistances need to be understood within the context to which these subjects are exposed: years of diagnosis of "epilepsy", drug treatment and intense seizures, and then a sudden diagnosis of PNES. Thus, that which appeared to be the responsibility of the neurologist, i.e. the cure, becomes the patient's responsibility, and is subjective, psychological. Is it possible to believe that after years of drug treatment and suffering the cure of the symptom could be the responsibility of the individual suffering from it? How can you tell the family, which also suffers, that this is not an organic dysfunction, but the production of a psychological symptom? Is the subject now lying about, faking or inventing convulsions? Moreover, could they be "crazy"? Embarrassed and failing to understand what may be happening, the patient denies the offer of treatment, not necessarily because it is psychoanalytic or psychological, but for being included in a diffuse field, which seems inconsistent with so much suffering. Thus, diagnosis alone is not sufficient. It is also necessary to authorize the search for adequate treatment.

Therefore, the therapeutic connection between neurologist and patient contributes to the patient accepting the PNES diagnosis or not[28] and understanding that the possibility of help, or indeed a cure, results from the assistance of another professional. At this time, the understanding of what psychogenic means and the implied consequences of the reaction of family members, the differentiation between what is unconscious and what is voluntary, may lead the individual to accept the diagnosis and undergo treatment with the psychoanalyst. When the diagnosis is not well received, an iatrogenic process begins and the search for other services that mistakenly reproduce the epilepsy diagnosis. Howell et al.[29] indicated that 50% of patients with a diagnosis of epilepsy admitted to the emergency service in England not having the disease. These patients have a high risk of iatrogenic comorbidity given that when presenting seizures and being taken to the emergency services, despite having PNES, they will again be mistakenly diagnosed as having epilepsy.[4]

Thus, the first step in PNES is to facilitate the understanding and acceptance of the patient upon diagnosis.[4] Therefore, the diagnosis of PNES should be given in an environment of trust, recognizing the seizures and the suffering caused by them, with correct referrals while providing support and long-term outpatient monitoring, and also avoiding the resumption of the use of anti-epileptic drugs that may be inadvertently reintroduced in emergency rooms.

Scientific studies have shown that the latency period between the manifestation of symptoms and correct diagnosis of PNES is 7.2 years.[30] Furthermore, ¾ of patients with PNES are treated with anticonvulsants.[2] This study was conducted in a tertiary hospital and, possibly, the

fact that the average time for correct diagnosis was lower in this case compared to that found in the literature relates to care being delivered in a center of excellence.

Among the studies described about the efficiency of psychological treatment, Prigatano et al.[21] reported a 66.6% (n=5) reduction in seizures for patients concluding the psychological treatment (n=9) and indicated an increase in seizure frequency of 11.1% (n=1). In a study[31] conducted for an average of 12 weeks and which included 16 patients, the authors found cessation of seizures in 9 (56.2%) patients. King et al.[32] treated 14 patients and reported effectiveness in the cessation and improvement of seizures at 79%. The educational approach has also been indicated[33] as a form of support and assistance for patients, aimed at accepting the psychological nature of their symptoms and the need for psychological monitoring.

When comparing the results of the studies described above with the results presented in this work (81.1% reduction or cure of the symptom, with 29.7% cured and 51.4% with a decrease in seizures), the effectiveness of treatment becomes apparent. Thus, despite the costs involved in psychoanalytic/psychological treatments being considered high, in the treatment of patients with PNES this becomes minimal considering years of misdiagnosis, assistance at neurological clinics, visits to the emergency room and the high cost of the medication used. Furthermore, there are the social, professional and personal costs resulting from the symptom. In this light, the costs of psychoanalytic treatment and the time of 48 sessions are negligible, objective and assertive.

The patients in this sample were considered as having a poor prognosis given the chronicity of the disease, were placed on welfare (INSS) and had a concomitant diagnosis of PNES and epilepsy. Despite this, the results obtained with the psychoanalytic method in relation to decrease and cessation of seizures were higher than those presented in the scientific literature,[21,34] given that these studies only presented a decline in the frequency of seizures and not cessation of symptoms.

The patients that concluded psychoanalytic treatment (considered as 48 sessions here) obtained a better evolution of PNES symptoms. The highest rates of treatment effectiveness can be observed in longer treatments, a product of the encounter between individuals who suffer and need to talk about themselves with a professional trained to assist them in the task of finding other means for the manifestation of their subjectivity and to elucidate the unconscious conflict.[35] Schmutz[35] highlights that, when analyzing the fact that psychoanalytic treatment does not prove effective for all patients, one should take into account that the abandonment of the treatment can be interpreted as a choice, conscious or unconscious, for maintaining the condition of invalid, due to the secondary gains present in this condition.

Upon analyzing the data that the cessation of seizures was more common in males, whereas in females there was a greater reduction in seizures, we may question whether this result can be attributed to a greater difficulty in women of completely abandoning the PNES. If so, we would be facing a condition where the difficulty in losing the identity of "invalid" or "epileptic" would imply an unconscious satisfaction whose repetition points to the paradox present in the dissociative crisis itself - the moment of disconnection, beyond the disease, as well as the unconscious search for an intra-psychic comfort zone. The cathartic effect of the seizure is in itself an attempt at a "cure", so it can be difficult to give up in some cases.

With respect to religion, it can be imagined that this factor allows subjects some form of dialectic response to the symptom, since it is possible to establish a symbolic relationship between the sufferer, and their belief that something may modify their condition beyond the purely organic interventions. When there is a firm belief in the organic nature of the seizures, inviting the subjects to question their involvement in the formation of symptoms during analysis seems to be a much harder task. In this case, the degree of acceptance of the diagnosis and proposed treatment may be factors that influence the results of the intervention. Starting psychoanalytic treatment somewhat implies taking a share of responsibility in the condition presented, as it invites the patient to talk about themselves and to be encouraged to build hypotheses and undertake investigative work regarding the symptomatic manifestations, making them take responsibility for their part in the formation of symptoms.

Conclusion

This study showed the effectiveness of individual psychoanalytic treatment conducted with patients with PNES and may be considered an essential form of care for a decrease or cessation of seizures.

The constant connection between subjectivity and organism, as shown and proven in individuals diagnosed with PNES, calls health professionals to reflect on the pre-

sence of the unconscious in the medical setting, making it clear that behind or beyond technology, subjectivity manifests itself and asks to be listened to and to be treated.

Resumo

Crises não epilépticas psicogênicas e tratamento psicanalítico: resultados.

Introdução: estima-se que o número de casos de pacientes com crises não epilépticas psicogênicas (CNEP) seja de 2 a 33 por 100 mil habitantes. O índice de CNEP corresponde ainda a, aproximadamente, 19% dos pacientes tratados como epilépticos. Os pacientes com CNEP são tratados como portadores de epilepsia refratária, chegando ao limite máximo do tratamento medicamentoso e sem a obtenção de resultados satisfatórios.
Objetivo: relatar os efeitos do tratamento psicanalítico individual em pacientes com CNEP de forma a avaliar a evolução do quadro clínico de CNEP e verificar sua associação com gênero, tempo de crise, prejuízos sociais, afetivos e profissionais, bem como término do tratamento.
Métodos: a casuística foi composta por 37 pacientes com diagnóstico de CNEP feito por meio da monitoração por vídeo-EEG. Foram realizadas sessões de tratamento psicanalítico: atendimento clínico individual com frequência semanal, com duração aproximada de 50 minutos e duração total de 48 sessões em 12 meses.
Resultados: este estudo constatou elevado índice de sucesso no tratamento dos pacientes com CNEP: 29,7% (n = 11) de cessação/cura dos sintomas e 51,4% (n = 19) de redução das crises convulsivas. Foi constatada associação entre cessar ou reduzir as crises e gênero (p<0,01), religião (p<0,01) e término do tratamento (p<0,01).
Conclusão: este estudo apontou eficácia do tratamento psicanalítico individual realizado com pacientes com CNEP, podendo ser considerada uma forma de assistência essencial para que haja decréscimo ou cessação das crises.

Palavras-chave: crise não epiléptica psicogênica; transtorno conversivo; psicanálise; tratamento.

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