



Comparison of Premature Ejaculation in Men with Focal Epilepsy and Generalized Tonic-Clonic Epilepsy

Comparaç o da ejaculaç o precoce em homens com Epilepsia Focal e Epilepsia T nico-Cl nica Generalizada

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Abstract

Introduction premature ejaculation (PE) is one of the most common sexual disorders in men.

Objectives Considering the importance of sexual health in men, especially patients with epilepsy, this study was conducted with the aim of comparing premature ejaculation in men with focal epilepsy and generalized tonic-clonic seizure (GTCS).

Methods In this cross-sectional and observational study, patients with epilepsy were included in the study. The examined patients were examined by psychiatrists and neurologists, and sampling was done according to the entry and exit criteria. The total sample size was 200 people, including 100 patients with focal epilepsy and 100 patients with GTCS. The tools used included demographic profile form, Men Sexual Health Questionnaire (MSHQ), Sexual Quality of Life-Men (SQOL-M), and Premature Ejaculation Diagnostic Tool (PEDT). The study was conducted to include patients referred to specialized clinics and hospitals and who had the necessary conditions to participate in the study. Considering that all the patients were male, the questioning was done by a male researcher. Then, the extracted data were entered into SPSS statistical software.

Results Result showed, the M(SD) age of the patients in the focal epilepsy group was equal to 30.18(3.85). M(SD) score of MSHQ tool was equal to 51.81 (11.98), SQOL-M tool was equal to 34.75 (9.36) and PEDT tool was equal to 8.63 (4.79). In this study, although the M(SD) of the PE score in the focal epilepsy group was reported to be 9.17 (4.49) higher than that of the GTCS group with a rate of 8.09 (5.04), but this difference was not significant. also, the findings showed that there was a significant relationship between the status of the PEDT score, the status of the SQOL-M score, and the MSH

Keywords

- ▶ Premature Ejaculation
- ▶ Focal Epilepsy
- ▶ Epilepsy

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score ($p < 0.05$). MSHQ score and SQOL-M score were reported to be lower in patients with PE disorder.

Conclusion According to the findings, the prevalence of sexual disorders including PE in both groups of patients with epilepsy is significant. For this reason, it is necessary to carry out pharmacological and non-pharmacological interventions to reduce the rate of PE in these patients.

Resumo

Introdução A ejaculação precoce (EP) é um dos distúrbios sexuais mais comuns em homens.

Objetivos Considerando a importância da saúde sexual em homens especialmente pacientes com epilepsia este estudo foi conduzido visando comparar a ejaculação precoce em homens com epilepsia focal e crise tônico-clônica generalizada (CTCG).

Métodos Neste estudo transversal e observacional pacientes com epilepsia foram incluídos no estudo. Os pacientes examinados foram examinados por psiquiatras e neurologistas e a amostragem foi feita conforme os critérios de entrada e saída. O tamanho total da amostra foi de 200 pessoas incluindo 100 pacientes com epilepsia focal e 100 pacientes com CTCG. As ferramentas utilizadas incluíram formulário de perfil demográfico Questionário de Saúde Sexual Masculina (MSHQ) Qualidade de Vida Sexual-Masculina (SQOL-M) e Ferramenta de Diagnóstico de Ejaculação Precoce (PEDT). O estudo foi conduzido de forma a incluir os pacientes encaminhados para clínicas e hospitais especializados e que tivessem as condições necessárias para participar do estudo. Considerando que todos os pacientes eram do sexo masculino o questionamento foi feito por um pesquisador do sexo masculino. Em seguida os dados extraídos foram inseridos no software estatístico SPSS.

Resultados Os resultados mostraram que a idade M(DP) dos pacientes no grupo de epilepsia focal foi igual a 30.18 (3.85). A pontuação M(DP) da ferramenta MSHQ foi igual a 51.81 (11.98) a ferramenta SQOL-M foi igual a 34.75 (9.36) e a ferramenta PEDT foi igual a 8.63 (4.79). Neste estudo embora a M(DP) da pontuação PE no grupo de epilepsia focal tenha sido relatada como 9.17 (4.49) maior do que a do grupo GTCS com uma taxa de 8.09 (5.04) mas essa diferença não foi significativa. Além disso os resultados mostraram que houve uma relação significativa entre o *status* da pontuação PEDT o *status* da pontuação SQOL-M e a pontuação MSH ($p < 0.05$). A pontuação MSHQ e a pontuação SQOL-M foram relatadas como sendo menores em pacientes com transtorno de EP.

Conclusão Segundo as descobertas a prevalência de transtornos sexuais incluindo EP em ambos os grupos de pacientes com epilepsia é significativa. Por esse motivo é necessário realizar intervenções farmacológicas e não farmacológicas para reduzir a taxa de EP nesses pacientes.

Palavras-chave

- ▶ Ejaculação Precoce
- ▶ Epilepsia Focal
- ▶ Epilepsia

Introduction

In men, there are different types of sexual disorders including libido disorder, erectile dysfunction (ED), and ejaculation disorder. Premature ejaculation (PE) is one of the most common sexual disorders in men.¹ Due to the existence of different definitions for the diagnosis of PE, for this reason, its prevalence has been reported differently in different studies. PE has many negative effects on the quality of sexual life of a person and his sexual partners and has reduced their mental health. Also, if PE is associated with ED disorder, the patient's depression worsens.^{2,3}

There are different definitions for PE. If the time interval from penetration to ejaculation is short and ejaculation

occurs before or shortly after penetration, it is defined as premature ejaculation. On the other hand, in some sources, if ejaculation occurs less than one minute from the beginning of intercourse, it is considered premature ejaculation, and in some other definitions, time less than two minutes is considered abnormal and premature. Also, in premature ejaculation, a man intermittently or permanently reaches orgasm before the desired time and ejaculation occurs.⁴⁻⁶

PE is divided into two categories. One of the types related to those men who are physiologically prone to rapid peak sexual pleasure due to the shorter time of neural latency. In the second type, some cases are conditioned by psychological or behavioral causes and suffer from premature ejaculation.⁷

In the diagnosis of PE, the doctor should consider the age, the novelty of the sexual partner, the frequency and duration of intercourse, which affect the duration of stimulation.^{8,9} The basis of PE diagnosis is based on taking a history from the patient or the person's sexual partner, and it has even been shown that if the doctor wants to measure the ejaculation time in his clinic, this time is normal or more than the time indicated by the person. Has done, is, for this reason, its routine evaluation is not suggested, and it is only based on the time mentioned by Fer himself or his wife.^{10,11}

The causes of male sexual dysfunction may be due to physical, mental or a combination of these two causes. The physical causes of sexual disorders include chronic diseases including diabetes, tumors of the reproductive system, blood pressure, urinary infections, and nerve and organ surgeries. From mental problems, it is possible to mention psychiatric disorders including the use of psychoactive drugs, anxiety, depression, etc.^{1,12,13}

Diseases related to the brain and nervous system are a group of diseases that have a high prevalence and leave many side effects for the patient.¹⁴⁻¹⁶ Epilepsy is one of the diseases of the brain and nervous system, which can affect the sexual function of the patient.^{17,18} The studies conducted in the field of sexual problems of patients with epilepsy are limited and few studies have addressed this issue. However, according to the studies, the status of sexual problems in patients with epilepsy has been reported to be higher than in other patients.¹⁹⁻²¹ In patients with epilepsy, spermatozoa concentration and seminal fluid have a lower volume and concentration, and this factor has been effective in the lack of sexual satisfaction in these patients.²²

Aim

Considering the importance of sexual health in men, especially patients with epilepsy, this study was conducted to compare premature ejaculation in men with focal epilepsy and generalized tonic-clonic seizure (GTCS).

Methods

In this cross-sectional and observational study, patients with epilepsy were included in the study. The examined patients were examined by psychiatrists and neurologists, and sampling was done according to the entry and exit criteria. The total sample size was 200 people, including 100 patients with focal epilepsy and 100 patients with GTCS.

The inclusion criteria included the patient being between the ages of 18 and 40, male gender, married and having sex for at least 6 months, informed consent to participate in the study, and suffering from epilepsy according to the doctor's opinion. Patients who, in addition to epilepsy, suffered from other diseases such as mental retardation, had a history of sexually diagnosed diseases, or had a history of drug use, were excluded from the study.

The tools used included a demographic profile form, Men Sexual Health Questionnaire (MSHQ), Sexual Quality

of Life-Men (SQOL-M) and Premature Ejaculation Diagnostic Tool (PEDT).

Demographic Information Form

It included questions about age, patient's and spouse's education, history of smoking, history of exercising, and number of children.

Men Sexual Health Questionnaire (MSHQ)

This tool includes 3 dimensions of erection, ejaculation, and satisfaction. The items of the instrument have a response range from zero to five, and higher scores indicate better sexual performance.²³ The MSHQ instrument has dimensions such as erection, which has 3 questions and the range of scores between 0-15, the state of ejaculation has 7 questions with a range of scores between 0-35, and the state of satisfaction has 6 questions, the range of scores of which is between 0-30.^{23,24}

Sexual Quality of Life-Men (SQOL-M)

This tool has 11 questions whose scoring range is from completely agree (score 1) to disagree (score 6), which in total scores are between 11-66, and higher scores indicate a better quality of life.^{25,26}

Premature Ejaculation Diagnostic Tool (PEDT)

This tool has 5 domains where the answer to each question is scored on a Likert scale from 0-4 and higher scores indicate higher sexual disorder. If the score obtained from the tool is less than 8, it means no PE, if the score is between 9-10, it means possible PE, and if the score is more than 11, it means PE.²⁷⁻²⁹

The method of conducting the study was in such a way that the patients who were referred to specialized clinics and hospitals and met the conditions for entering the study were included in the study. Considering that all the patients were male, the questioning was done by a male researcher. At first, by obtaining informed written consent from the patients, questioning began, and then the method of conducting the study was explained to the patients. Then, the extracted data were entered into SPSS statistical software while maintaining confidentiality, and data analysis was done with independent t-tests, ANOVA, regression, and descriptive tests.

Result

Result ► **Table 1** showed that the M(SD) age of the patients in the focal epilepsy group was equal to 30.09(3.66), in the GTCS group it was equal to 30.27(4.05) and in all patients, it was equal to 30.18(3.85). Also, 15% of all patients had the experience of doing sports and 15.5% of them had the experience of smoking.

According to ► **Table 2**, the M(SD) score of the MSHQ tool was equal to 51.81 (11.98), the SQOL-M tool was equal to 34.75 (9.36) and the PEDT tool was equal to 8.63 (4.79). In this study, although the M(SD) of the PE score in the focal epilepsy group was reported to be 9.17 (4.49) higher than that of the GTCS group with a rate of 8.09 (5.04), this difference was not significant.

Table 1 Demographic characteristics of patients with epilepsy in the studied groups

Variable		Focal epilepsy	GTCS	Total epilepsy
		N (%)	N (%)	N (%)
Education	High school or below	49(49)	47(47)	96(48)
	University	51(51)	53(53)	104(52)
Economic status	Weak	65(65)	54(54)	119(59.5)
	Moderate	33(33)	40(40)	73(36.5)
	Good and excellent	2(2)	6(6)	8(4)
Children	None	57(57)	64(64)	121(60.5)
	One or more	43(43)	36(26)	79(39.5)
Spouse education	High school or below	38(38)	47(47)	85(42.5)
	University	62(62)	53(53)	115(57.5)
Exercise	Yes	18(18)	12(12)	30(15)
	No	82(82)	88(88)	170(85)
Smoking	Yes	14(14)	17(17)	31(15.5)
	No	86(86)	83(83)	169(84.5)
Age	M(Sd)	30.09(3.66)	30.27(4.05)	30.18(3.85)

Table 2 Status M(SD) score of MSHQ, SQOL-M and PEDT instruments of the patients under study

Variable		Focal epilepsy	GTCS	Total epilepsy	P-Value, F
MSHQ	Erection	6.6(1.71)	6.08(1.27)	6.7(1.5)	0.04, 4.25
	Ejaculation	25.78(4.63)	21.57(6.84)	23.67(6.19)	0.000, 32.37
	Satisfaction	22.47(7.33)	20.4(7.94)	21.43(7.7)	0.05, 3.67
	MSISQ Total	54.85(10.38)	48.77(12.72)	51.81(11.98)	0.007, 7.48
SQOL-M		36.31(10.62)	33.2(7.66)	34.75(9.36)	0.001, 10.47
PEDT		9.17(4.49)	8.09(5.04)	8.63(4.79)	0.76, 0.09

The findings showed that there was a significant relationship between the status of the PEDT score, the status of the SQOL-M score, and the MSH score ($p < 0.05$). MSHQ score and SQOL-M score were reported to be lower in patients with PE disorder (→ **Table 3**).

Results showed, 29.5% of patients were in Definitive PE status, 8.5% of patients were in Possible PE status, and 62% were in No PE status (→ **Table 4**).

Discussion

This study aimed to compare premature ejaculation in men with focal epilepsy with GTCS. In various studies, the sexual problems of men and women in patients with epilepsy have been investigated. The results of this study will be compared with the results of other studies in several sections (general population, patients with epilepsy inside Iran and outside Iran) as follows:

In the report of the meta-analysis by Ramezani et al. in Iran, 11 articles with different types of patients including patients with heart problems, diabetes, dialysis, neurological, and other groups were reviewed. According to the findings, the prevalence

of erectile dysfunction in men was equal to 56.1%.³⁰ In the study of Porst et al., the prevalence of PE in the United States was reported as 24%, in Germany as 20.3%, and in Italy as 20%. Also, men with PE have been exposed to other sexual disorders such as erectile dysfunction, sexual aversion, and anorgasmia.² Also, in Tang et al.'s study, where men aged 18-70 years were examined, the prevalence of PE in 207 examined men was reported as 46.9%.³¹ The results of the aforementioned studies show the prevalence of sexual disorders, which is consistent with the results of this study on the prevalence of PE in patients with epilepsy.

In the study of Nikoobakht et al., 80 male patients between the ages of 22 and 50, who were diagnosed with epilepsy, were included in the study. 42.5% of patients had erectile function disorder and 11.3% of patients had premature ejaculation disorder. Also, the type of seizure and the frequency of epileptic seizures had a significant relationship with the state of erectile function, orgasmic function, and sexual desire.³² In the study of Mazdeh et al., which examined 35 married patients, it was shown that erectile dysfunction was observed in 48.1% of the patients in the sodium valproate group and 51.9% of the carbamazepine group. It

Table 3 Correlation coefficient matrix of MSHQ, SQOL-M and PEDT

Variable	SQOL-M			PEDT			MSHQ		
	P	R	F	P	R	F	P	R	F
MSHQ	0.000	0.28	17.63				1	1	1
SQOL-M	1	1	1	0.03	- 0.15	4.65			
PEDT				1	1	1	0.000	0.47	58.74

Table 4 Investigation of distribution of frequency (percentage) of PE in examined patients

Variable	Focal epilepsy	GTCS	Total epilepsy
	N (%)	N (%)	N (%)
No PE	55(55)	69(69)	124(62)
Possible PE	12(12)	5(5)	17(8.5)
Definitive PE	33(33)	26(26)	59(29.5)
Total	100(100)	100(100)	200(100)

was also observed that with erectile dysfunction, there were 11 patients with moderate condition, 15 patients with moderate to mild condition, 16 patients with mild condition, and 18 patients without erectile dysfunction.³³ Previous studies have shown the presence of sexual disorders in patients with epilepsy in Iran, which is consistent with the results of this study.

In the group of women with epilepsy, in the study of Mazdeh et al., where 80 married women were included in the study, disorders in the state of Desire equal to 41%, state of arousal equal to 35%, state of lubrication equal to 48% and state of orgasm were reported equal to 41%.³⁴ The results of the mentioned study are consistent with the results of this study regarding the existence of sexual problems in patients with epilepsy.

Henning et al.'s study, which examined 171 patients with epilepsy, showed that the most common reported problems included erection problems, decreased libido, vaginal dryness, and problems related to orgasm. Also, the prevalence of sexual problems in men was equal to 63.3%, and in women was equal to 75.3%. The problems reported in men include sexual dysfunction with a rate of 63.3%, late ejaculation with a rate of 5.6%, reduced sexual desire with a rate of 25.6%, feeling sexually deviant with a rate of 5.6%, problems with orgasm with a rate of 13.3%, and premature ejaculation with a rate of 15.6%. It was reported.³⁵

Also, in the study of Calabrò et al., in the group of 30 men with epilepsy (aged 20 to 53 years), it was shown that the rate of Retarded ejaculation equals 3.8%, the rate of Erectile dysfunction equals 3.3%, the rate of Premature ejaculation equals 6.7%, the rate of Hyperactive desire equal to 1.7%, hypoactive desire equal to 8.3% and the number of patients who reported no sexual disorders was reported equal to 21.7%.³⁶ Also, in another study conducted by Sureka et al., it was shown that sexual dysfunction was reported in 66% of patients. Reported sexual dysfunction included Erectile dysfunction with a rate of 36%, Hypoactive sexual desire equal to 4 hundred percent (0.04%), Premature Ejaculation equal to

26%, and the percentage of patients who reported no sexual dysfunction equal to 34%.³⁷

Conclusions

According to the findings, the prevalence of sexual disorders including PE in both groups of patients with epilepsy is significant. For this reason, it is necessary to carry out pharmacological and non-pharmacological interventions to reduce the rate of PE in these patients.

Authors' Contribution

SHA, MO, and AD conceived the study, performed data analysis, and wrote the manuscript. SHA, MO, and AD collected data and wrote the manuscript. SHA, MO, and AD interpreted the results and wrote the manuscript. SHA, MO, and AD designed the study, and wrote, and edited the manuscript.

Data Reproducibility

The dataset presented in the study is available on request from the corresponding author during submission or after its publication. The data are not publicly available due to [confidentiality].

Ethical Approval

The current study was conducted after obtaining approval by the Ethics Committee of ilam University of Medical Sciences (IR.MEDILAM.REC.1403.027).

<https://ethics.research.ac.ir/ProposalCertificateEn.php?id=463349&Print=true&NoPrintHeader=true&NoPrintFooter=true&NoPrintPageBorder=true&LetterPrint=true>

Informed Consent

Informed consent was obtained.

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Conflict of Interests

No conflict of interest.

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