INVESTIGATION OF CLINICAL CHARACTERISTICS OF PSYCHOSIS IN PATIENTS WITH EPILEPSY

Dinh Viet Hung[1], Huynh Ngoc Lang[1]
Pham Ngoc Thao[1], Ngo Dac Sang[2]

SUMMARY

Objectives: *To study psychotic features in patients with epilepsy.* ***Subjects and methods:*** *52 patients with epilepsy were treated at Department of Psychiatry, Military Hospital 103. The patients were consulted by three independent professional psychiatrists.* ***Results****: 69.23% of patients were found with psychotic expressions, of which hallucinations accounted for 97.22% and delusions accounted for 72.22%. There were 2 frequent psychotic symptoms, including optic hallucination (54.28%) and persecutory delusion (53.85%). Other disorders: 88.46% of patients were found with consciousness disorder, of which clouding of consciousness accounted for the highest percentage (54.35%). Behavioral and memory disorders were often encountered, especially 16.78% of patients had attempted suicide.* ***Conclusions****: Psychotic symptoms in patients with epilepsy are relatively diversified and complicated.*

** Keywords: Epilepsy; Psychotic feature.*

INTRODUCTION

Epilepsy is a popular disease in Vietnam as well as all over the world. According to the International League Against Epilepsy, the prevalence of epilepsy accounts for 0.5% of population with approximately 45 million cases. In Vietnam, this prevalence is approximately 2% including roughly 60% of children [1, 2].

The studies revealed that the number of local epilepsy or epileptic seizure explains for 55 - 60%, primary generalized epilepsy makes up 26 - 32%, non-classified epilepsy accounts for 8 - 13% [3].

Generally, the clinical expression of epilepsy as well as psychotic symptoms pre- and post-epilepsy are diversified and complicated. In Vietnam, no comprehensive study on psychotic symptoms has been conducted in patients with epilepsy. Therefore, this study aimed: *To evaluate the interictal delusion and hallucination characteristics in patients with epilepsy.*

SUBJECTS AND METHODS

1. Subjects

52 patients were diagnosed with epilepsy (G40) according to ICD-10 (1992), received treatment at the Department of Psychiatry, Military Hospital 103 from February 2014 to February 2020.

** Exclusion criteria:* Patients had normal EEG, critical illness, pre-epilepsy psychosis and did not agree to participate in the study.

[1]*Military Hospital 103*
[2]***Vietnam Military Medical University***
Corresponding author: Dinh Viet Hung (bshunga6@gmail.com)
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2. Methods

- Study design: A cross-sectional retroprospective study.

The clinical symptoms were examined on admission. The consultation were performed by two independent psychiatrists.

** Data analysis:* Based on SPSS 20.0. A statistically significant difference was determined for tests with $p < 0.05$

RESULTS AND DISCUSSION

1. General features of study subjects

** Distribution by age:* < 20 years old: 22 patients (42.31%), 20 - 29 years old: 12 patients (23.08%), 30 - 39 years old: 7 patients (13.46%), 40 - 49 years old: 7 patients (13.46%), ≥ 50 years old: 4 patients (7.69%). Mean age was 23 ± 4.12.

The most common age was under 30 years old (65.39%), which was considered a feature of disease.

** Distribution by gender:* Male: 33 patients (63.46%), female: 19 patients (36.54%).

The results showed that the percentage of male patients was significantly higher than female ($p < 0.001$). The male/female ratio was 1.73/1; this result was consistent with other domestic and international findings (male/female ratio was 1.1-1.7/1).

Table 1: Distribution by educational level.

Statistics index / Level	Number of patients (n)	Percentage (%)	p
Primary school	8	15.38	< 0.001
Secondary school	28	53.85	
High school	14	26.92	
Graduate and post-graduate	2	3.85	

The results showed that graduate and post-graduate accounted for the lowest rate (3.85%) and secondary school was the highest (53.85%). It meant that majority of patients were in the working/study age and these result were appropriate for the common qualification of Vietnamese population [2].

Table 2: Characteristics of marital status.

Statistics index / Marital status	Number of patients (n)	Percentage (%)	p
Single	33	63.46	< 0.001
Married	11	21.16	
Separated - divorced	8	15.38	

Most patients were single (63.46%). It can be explained by two factors: Firstly, onset age is relatively early, within the marriage age. Secondly, cognitive disorders may be the important cause leading to the difficulty in communication with other people, including opposite gender persons. Therefore, their opportunities for marriage may be lower compared to normal people. Furthermore, the high prevalence was found in patients with marriage but divorce or separation [5].

2. Psychotic characteristics in epilepsy patients

* *Types of hallucinations:* Visual hallucination: 19 patients (54.28%), olfactory illusions: 7 patients (20.00%); auditory hallucinations: 5 patients (14.29%) and tactile hallucinations: 4 patients (11.43%).

Hallucinations does not exist frequently; however, it often occurrs in the consciousness disorder phase. According to Montassir H (2020), the perceptual disorder was common and known as a characteristic of temporal lobe epilepsy, symptoms often appeared in episodes with a sudden start and end, optic hallucination and auditory hallucinations accounted for 47.29% and 16.54%, respectively. For the auditory hallucinations, true and crude auditory hallucinations did not control the behavior of patients [6].

* *Types of delusion:* In patients with temporal lobe epilepsy, delusion was a common symptom (50%), of which delusion of control was rarely encountered (15.38%); percecutory delusion accounted for a high proportion (53.85%); bizarre delusion was found in 30.77%.

In the temporal lobe epilepsy of the narrow consciousness phase, delusional symptoms were also common, its contents were diversified and abundant. Delusion symptoms resulted in change in patient's dignity and cognitive disorder time. This result was well matched with Montassir H's findings (2020): The prevalence of persecutory delusion occupied 41.15% [6].

* *Combination of hallucinations and delusions:* 25 patients (69.44%) with hallucinations and delusions emerged concomitantly; 10 patients (27.78%) had isolated hallucinations; 1 patient (2.78%) had isolated delusion.

Psychotic symptoms generally demonstrated in paranoid syndrome in combination with hallucinations, few of them was contracted with single hallucinations and delusions. Paranoid syndrome in epilepsy caused difficulty in diagnosis and treatment. According to the study by Kuzman Z (2020) on movement epilepsy, delusions and hallucinations accounted for 57.26% [7].

Table 3: Characteristics of content, behavior and visual hallucination attitudes in patients with epilepsy.

Characteristics \ Statistic index		Number of patients (n)	Percentage (%)
Content	Dreadfulness	16	84.21
	Pleasure	3	15.79
Attitude	Trust	14	73.68
	Vagueness	5	26.32
	Distrust	0	0.0
Behavior	Clearly response	12	63.16
	Unclear response	7	36.84
	Unresponsiveness	0	0.0

Optic hallucination content was most common found in spine-chilling (84.21%), for the attitude of patients towards optic hallucination, the prevalence was 73.68%;

and the behaviors of acute psychotic patients clearly responded to the optic hallucination, accounting for 63.16%. Our findings were consistent with the study by Kuzman Z (2020): Optic hallucination made up a high proportion and was typical for mental epilepsy [7].

Table 4: Characteristics of delusional behavior and attitudes in epilepsy patients.

Statistic index / Percecutory delusion		Number of patients (n)	Percentage (%)
Attitude	Trust	11	78.57
	Vagueness	3	21.43
	Distrust	0	0.0
Behavior	Clear response	9	64.29
	Unclear response	5	35.71
	Unresponsiveness	0	0.0

The results showed that in epilepsy patients with persecutory delusion, most of attitude's patient was trust (78.57%) and behavior of patient was clear respone (64.29%). This result was similar to Kuzman Z's findings (2020): Persecutory delusion was most common and caused dangerous behavior to the surrounding people [7].

* *Characteristics of consciousness disorders after seizure:* 46/52 patients (88.46%) had consciousness disorders, including sundown syndrome (54.35%), narrowed consciousness (28.26%) and confusion (17.39%). Such consciousness disorders generally caused to excited behavior which was the popular symptom to distinguish between general big epilepsy as what referred to by Gélisse P (2001) [8].

* *Characteristics of behavioral disturbances in patients with epilepsy:* Stimulation: 10 patients (27.78%), attempted suicide: 6 patients (16.78%), strange behavior: 5 patients (13.89%), motionlessness: 2 patients (5.56%).

Other common disorders in psychotic epilepsy included behavioral and memory disorders. Among them, attempted suicide was recorded as the dangerous behavior to to the patient life and the cause of admission. Our results were consistent with Gélisse P's findings (2001) on psychotic epilepsy, the attempted suicide accounted for 32.54% of behavior disorders [8].

* *Characteristics of memory disorders in epilepsy patients:* After epilepsy, 39/52 patients had memory disorders, of which short-term memory loss accounted for the highest (58.95%), followed by long-term memory loss (17.95%), total memory loss (10.26%) and combined memory loss (12.82%).

CONCLUSIONS

Through our study on psychotic characteristics in 52 patients with epilepsy, we drew some conclusions:

- Psychotic characteristics: 69.23% of patients were found with psychotic expressions, of which hallucinations accounted for 97.22% and delusions made up 72.22%. There were 2 common psychotic symptoms, including optic hallucination (54.28%) and persecutory delusion (53.85%).

- Other disorders: After epilepsy, 88.46% of patients were found with consciousness disorder, of which clouding of consciousness accounted for the highest percentage (54.35%), behavioral and memory disorder also often met, especially 16.78% of patients had attempted suicide.

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