The Comparison of Clinico-mental Pathology in Convertive Patients and Grandmal Epileptics in Forced War Participants

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Abstract
This topic aims toward the investigation and comparison of four groups: epileptics, convertives, combat soldiers and normal individuals. The purpose of this research is comparison of similarities and differences between these groups. Each group had thirty members. The members of first three groups (epileptics, convertives and combat soldiers) were in fronts of war, but the fourth groups members weren't.

The members of epileptics and convertives had a traumatic experience, especially head trauma. The third group were in fronts of war but weren't experienced head trauma.

The mental symptoms and neuropsychological situation (information processing) of groups were examined by the symptoms checklist-90-revised (SCL-90-R) and visual-perception tests.

The method used in this research is analysis of variance between variables using ANOVA, demonstrated that there were significant difference between groups mean. These differences were observed about symptoms of mental and information processing. These differences are significant (a=0.01).

The result of research showed that epileptic and convertive group have perceptual and mental disorders. The epileptics group had more problems than convertive group.

Key words: Clinico-mental pathology, convertive patients,

Introduction

Stresses are transferred by nervous system to specific centers in the brain, and stimulates those centers, and rises reaction according to stress. These tense factors make several physical and mental disturbance, therefore according to this systematic theory of mental function, all disturbance that appear in portion or in all of system will show these reflection in high activities. In trauma-epileptics with brain lesion in part of region in their brain and traumatic convective with no lesion in brain, nervous system response against stress unlike heterorganic and psychopathology outbreak in form of disturbance of emotional-affectional processing and different apprehension vision. These disturbances indigences on region and intension of lesion and extent. Poggia and his colleagues (1975)2 and Zeki (1982)3 showed that each cell of brain in order to dedicate function has another responsibility.

According to recent neuropsychology and physiopathology researches on traumatic-epileptics not only they have mental symptoms and physical information processing derangement but also have problem in emotional perception. The war has direct physical destructive effect and series of mental
symptoms on soldiers and indirect affect on their family and society. These affects all parts of individual and society life, mental hygiene and social Safety. So special attention to the problems of war has first priority.

Method
Testees: Testees in this research includes two groups of Janbaz, one group of combat soldiers and the other normal individuals. One group Janbaz was epileptic and the other group was convective that they were hospitalized in Bonyad clinic.

The number of all testees were 120, so because of few number of convective and epileptic cases by association. For getting more definitive results, two groups were added to then. Testees include men of 24-50 years old.

Research tools
A) SCL-90-R-TEST, using this test for evaluation of mental symptom in groups.

Derogtis, Lipman, Covi used this test to show the psychological aspects of mental symptoms with attention to psychometric experience and analysis in 1976 and revised by Derogtis, Beckels and Rock.

This test explain nine dimension (obsessive-compulsive, somatization, depression, stress, aggression, phobia, paranoia, psychosis) and expand and explain three index of distress (total coefficient of pathological symptoms, distress coefficient criteria and symptom summation).

Each test includes 5 grade (0-4) or nothing much, testee defines it. About the constancy and validity of test, we have to say that the nine dimensions of constancy assessment of this test have been performed in two ways.

Internal constancy of calculation and stability retest. The most stability was related to depression (9%) and the least was related to psychosis (77%). Drogotis, Beckels and Rock (1976), also reliability by retest had measured constancy of the test during the time, the majority of coefficient have high correlation between 78% to 0%. (Numalry, 1970).

Also in Iran it was reported the constancy of this test about 8% (Bagheri, et al). In field of validity of test several studies has been performed. Drogotis and his colleagues (1976) performed the validity of test with MMPI on 119 cases. The correlation between the results indicated a high correlation between two tests, higher level related to depression (r=0.75) and the least related to phobia (r=0.5).

Boleiovsky Horuth measured the correlation of these tests by test. The results shows the general correlation of MHQ with GSI is high (%92), and between scales the most correlation was related to depression (73%) and the least was related to phobia (36%).

Bagheri, et al and other Iranian researchers also had performed studies about the validity of test and the results were similar to that issued in United States. In this investigation (by Bagheri et al) the constancy of this test in all dimensions are more than 7%, except for aggression, phobia and paranoia.

B) Neuropsychological test
This test is prepared according to Neuropsychological evaluation by Lezak, (1983) and with accompaniment of neuropsychologist and psychiatrist. The purpose of this test was assessment of information processing.

For going test contain one constant stimulus and 60 computerized dynamic stimuli which includes words, numbers, colors, sentences, and the pictures.

Constant stimulus was only for learning about the way of performance. Thereafter, stimulus will appear less than one second on screen and then will disappear, and a blank plan will substitute. After next order, next stimulus will be given.

Test contains several parts:
A) mono stimulus
B) multiple stimuli
C) sentences
D) pictures

In each instance, stimuli were distributed equally in different sections of monitor.

Performance methods and statistical ways:
For testees it was explained that they were chosen for research. They must answer to two parts, first SCL-90-R test and then neuropsychological test will be performed.

Then performed SCL-90-R test was performed in singularly and accidentally way and after ward, afterward neuro-psychological test (perception-vision) was performed.

In order to analyze the facts, the one-way variance analysis method has come to use. For using this method, we studied mental-status and information processing of studying groups. concerning to conducted test, the variance analysis and follow-up test, the results are as follows:
The results of SCI-90-R Test:

Somatic complaint scale:
In this scale the average scores in epileptics had been more than the other average, and convetive, combat soldiers, and normal individual are in second to fourth level respectively. Concerning to conducted follow-up test, we concluded that the differences between all averages, except the differences between epileptics and convetive groups, and the differences between the averages of combat soldiers and normal individual are significant (P ≤ 0.01).

Obsession-compulsion scale:
In this scale the average scores of epileptic had been more than the others, and convetive group combat soldiers, and normal are in second to fourth level respectively. Regarding to the conducted follow-up test, we conducted that the difference between each pair of groups, except the differences between combat soldiers and normal individual group, were significant (P ≤ 0.01).

The scale of interpersonal sensitivity:
In this scale the average scores of epileptic (2.39), convetive (1.73), combat soldiers (5.54), and normal individual (5.44) have apparent differences, but according to the conducted follow-up test, the differences between the averages of each pair of groups, except the differences between combat soldiers, and normal individuals are significant (P ≤ 0.01).

Depression scale:
In this scale the average scores of epileptic (2.65), convetive group (2.03), have apparent differences with combat soldiers (5.55), and normal individuals (5.55), but according to the conducted follow-up test, the differences between combat soldier group and normal group were significant (P ≤ 0.01).

Anxiety scale:
In this scale the average scores of the epileptics (2.49), convetive group (2.17), combat soldiers (6.1) and normal individuals (4.8) have apparent differences respectively, but according to the conducted follow-up test, the differences between averages of epileptics and convetives and averages of combat soldiers and normal individual were significant (P ≤ 0.01).

Aggression scale:
In this scale the average score of the epileptics (2.54), convetive (1.88), combat soldiers (5.6) and normal individuals (5.3) have apparent differences, respectively but according to the conducted follow-up test, the differences between each pair groups, except the differences between combat soldiers group and normal individuals were significant (P ≤ 0.01).

Phobia scale:
In this scale the average scores of the epileptics (1.83) convetive group (1.47), combat soldiers (4.9) and normal individuals (3.7) have apparent differences respectively, but according to the conducted follow-up test, the differences between each pair groups, except the differences between the averages of the epileptic group and normal individuals were significant (P ≤ 0.01).

Paranoid scale:
In this scale the average scores of the epileptic group (2.40), convetives (4.95), combat soldiers (6.54), and normal individuals (7.55) have apparent differences respectively but according to the conducted follow-up test, the differences between average of epileptics and combat soldiers and differences between epileptic and normal individuals were significant (P ≤ 0.01).

Psychosis scale:
In this scale the average scores of the epileptic group (2.09), convetives (1.2), combat soldiers (5.0), and normal individuals (4.7) have apparent differences, respectively, but according to the conducted follow-up test, the differences between each pair of groups except for the differences between combat soldiers and normal individuals were significant (P ≤ 0.01).

Coefficient of symptom index:
In this scale the average of epileptics (2.42), convetives (1.78), combat soldiers (5.6) and normal individuals (4.7) have apparent differences respectively, but regarding to the conducted follow-up test, the differences between each pair of groups except for the differences between combat soldiers group and normal individual were significant (P ≤ 0.01).

Symptom summation index:
Regarding to the averages, epileptic group (78.73), convetive group (66.70), combat soldiers group (36.23) and normal individuals (29.87) have apparent differences respectively, but according to the conducted follow-up test, the differences between each pair of group, except for the differences between combat soldiers and normal individuals were significant (P ≤ 0.01).
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except for the differences between combat soldiers and normals averages were significant (P ≤0.01).

Single stimuli:
The average of the correct responses in epileptic group (14/2), convetives (15), combat soldiers (19/4) and normal individuals (19/59), shows apparent differences between groups. By the conducted follow-up test we can say that the differences between each pair of all averages, except for the differences between epileptic and convetive averages, and the differences between combat soldiers and normal group averages were significant (P ≤0.10).

Double stimuli:
The average of the correct responses in epileptics (0), convetives (0), combat soldiers (1), and normal individuals (2/6) shows apparent differences between groups. By the conducted follow-up test we can say that the differences between each pair of all averages, except for the differences between epileptic and normal individuals averages, and the differences between convetive and normal group averages, and the differences between militant and normal group were significant (P ≤0.05).

Triple stimuli and sentences:
The average of the correct responses in epileptic (0/2), convetive (0), militant (5/1) and normal individuals (6/2) shows apparent differences between groups. By the conducted follow-up test, we can say that the differences between each pair of all averages except for differences between epileptic and convetive averages and the differences between militant and normal individuals were significant (P ≤0.01).

Discussion
In contrast with current belief that epileptics only suffer form neural discharges and in convetive patients have less problem and merely must use antiepileptic drugs. Comparing to our study it showed that the epileptic also have psychological problems.

This especially was apparent in epileptics that their epilepsy was triggered by severe stress like war and front exposure.

For the first time Binder8 mentioned that stressful events like combat or natural disasters cause problems in psychological reactions. Among them depression more than other disorders were studied.

Carrie 9 in his study about epileptics showed that depression is the most prevalent disorder in epileptic patients. He didn’t mention to any other statistics about the other disorder in epileptic patients, and also didn’t divide epileptics, etiologically.

Our study specified that depression among epileptic patients is more meaningful than in convetive patients and normal individuals.

The main problem that will be mention in this part is that depression in patients (except their history) is due to participation in war, because between epileptic group and combat soldiers were statistical meaningful differences (P ≤0.01).

Chaplin, et al 12 that performed a study on epileptic patients it was specified that inter-ictal depression signs in these patients in comparison to chronic neurological patients and physical disables are more severe. This matter clearly shows the clear relation among epilepsy and depression.

Psychosis in epileptics also was studied, however, the results in some cases is inconsistent. Dodson and his colleagues 13 specified that affective psychosis is more prevalent in epileptic patients, but the other group of specialists believe that psychotic disorders in epileptic patients in is less prevalent.

Therefore our study specified that psychosis in epileptic patients comparing to convetive and combat soldiers and normal individuals is more prevalent and at this point our findings are compatible with Dodson and his colleagues.

The reason for mismatching of our results and the other researchers that believe in less psychosis in epileptics might be in attention to essences of the reason of epilepsy formation, in patients who participated in this study.

We should mention that psychotic disorders are more prevalent among those who confronted to trauma or shock of combat or natural disaster comparing to normal individual. Also in similar foreign studies the intentional self-mutilation in epileptics has six-fold of normal population, also Carriere mentioned that suicide among epileptics especially temporal-epileptics is more prevalence than normal population.

In our study the prevalence of phobia among epileptics was more than conversion disorder but there was no statistical meaningful differences between the two group, also this prevalence in comparison to combat soldiers and normal was more. This problem also has emphasized in Gehlert’s paper.
In our study we emphasized on aggression too. Generally mental symptoms except somatic complaint scale, phobia and stress, had statistical significant differences between epileptics and conversion disorder. The second part of our study, contain neuro-psychological test results.

In our study perception disorder of all stimuli in epileptics was more, although there was statistical meaningful differences with converters.

About positive emotions, and negative emotional changes, epileptics group, convective disorder and combat soldiers was similar, but had differences to normal individuals. About the right side of the plan stimuli in epilepsy disorder was more prevalent but in the left and central side of the plan stimuli was similar to converters. The other stimuli also didn’t have statistical differences with convective group. The considerable problem was clear disorder in perception of the right side of the plan stimuli in epilepsy.

Researches about information processing and perception stimuli in epileptics is very old history. Forgus et al. about etiology of depression and the other convective disorders noted that this convective disorders themselves are the cause of cognitive distortion.

About the etiological relevance of emotional and cognition disorders, it is clear that in epileptic-patients, depends on the site of injury. Attention deficit and primary memory problems are more common. In frontal lobe epileptic, Chadwick article has mentioned that in generalized epilepsies primary-memory and attention are disturbed.

Helmstaedter and his colleagues has cleared that epilepsies cause defect in concentration the scope of recognition threshold, attention and reactions time. It is not worthy that in the field of neuropsychological disorders there is not agreement between authors.

Binder believed that memory intelligence and most other abilities are not different in epileptics and psychological convulsion. These researcher findings are more compatible with our results. However as distinguished in our “Neuropsychological study” only in right side of the plan stimuli there were discrepancies between epileptics and conversion disorder and in other cases they were similar.

However at the end we mention that this research results were obtained from epileptics encountered war accidents.

In order to generalize the results to all epileptic patients it is necessary to study the patients with no war history. Epileptics have different cognition-Psychological problems. These disorder are more common among them, compared to normal population even in some cases like aggression, depression, obsession compulsion and psychosis are more prevalent than converters.

The single more common neuropsychological issue in epileptics is right side of the plan stimuli perception, but other problems are more prevalent in conversion disorder.

References