

A Study of Conduct Disorders in a Sample of Egyptian Adolescent Epileptics

Z. Bishry; A.H. Khalil; S. Ashour, M. Omar.

Abstract

Twenty-one epileptic patients of both sexes, of age group ranging from 12-18 years, attending to the out patient clinic of epilepsy from June 1995 throughout August 1995 were included in the study. The diagnosis of epilepsy has been made according to the criteria of the International League against Epilepsy. Patients were subjected to physical examination, a semistructured psychiatric interview, the ICD-10 symptoms check list for the diagnosis of conduct disorder, psychological tests for assessment of I.Q, personality traits, impulsivity, and electroencephalograph and compared to a control group of 14 individuals, matched to the study group. Results of this study showed that being an eldest sib, poorer school performance, presence of positive past history, lower I.Q., impulsivity, introversion, uncontrolled seizures, abnormal EEG findings and presence of cerebral dysrhythmia in EEG, were highly significantly correlated with the occurrence of conduct disorders in epileptic adolescents; while male gender, neuroticism, high score on lie scale, longer duration of illness and treatment, complex partial seizures and myoclonic types of seizures were found to be correlated to occurrence of conduct disorder in epileptic adolescents. But neither large family size, parental absence, psychoticism, earlier age of onset of seizures, types of treatment were found to show any correlation.

Introduction

Epilepsy is a common condition. According to John Walton (1993) in his study of the prevalence and cumulative incidence, the percentage in the age group ranging from 10-20 years, is about 1.5%. As it is known, Egyptian adolescents represent about 23.1% of the entire population, i.e. 12.94 millions (Arabic Board of Children and Development, 1993). So, epileptics among this major category could be estimated to be 1.94 (approximately 2) million Egyptian adolescents. Conduct disorders, as an example of maladaptive behaviour, is considered the commonest psychiatric disorder in older children and adolescents, where the prevalence of conduct disorder was found to be 4% in some studies (Barker, 1988, Rutter, 1990). A methodological comprehensive study carried out on criminal offenders and

delinquents, showed that it was three times more frequent in the epileptic population (Fenurick, 1987). So if we consider the same percentage in our society, 232800 delinquent epileptic adolescents could be estimated to exist, which is quite a huge number. The present study was motivated by the above data, and the fact that the phenomenon involves the susceptible age group of adolescents, who are considered to be the future productive and driving power of the society. Furthermore, studies and references about the estimated conduct disorder patients among epileptic adolescents are scarce.

Aim of the Work

This work aims to study the prevalence of conduct disorders among a sample of Egyptian Epileptic Adolescents and to

identify the possible biopsychosocial correlates of these disorders. Also, an attempt will be made to identify possible correlations between conduct disorder and epilepsy regarding the type, age of onset, frequency of seizures, ...etc.

Material and Methods

The subjects of this study included adolescent (12-18 years) epileptic patients, diagnosed according to the criteria of the clinical and electroencephalographic classification of epileptic seizures according to the International League against Epilepsy (1993). The sample was selected from the patients attending the out patient epileptic clinic, Ain Shams University Hospital, in 2 fixed days of the week, during the period from June 1995 throughout August 1995.

Out of 483 epileptic patients attended to the clinic during this period, 92 cases were considered to be new cases, and the rest came regularly for follow up.

Only 28 patients of the new cases (30.43%) were fulfilling the inclusion criteria, and 5 cases were excluded according to the exclusion criteria of having an associated medical disease, other neurological disorders than epilepsy, other psychiatric disorders than conduct disorder and if the I.Q. of the patient was below 80. Two patients did not continue all the psychological tests or investigations. Hence the study comprised 21 cases of epileptic adolescents.

All patients of the study and control group were subjected to:

1- Physical examination, one of the family members was involved to give full details about the epileptic fits.

2- Semistructured psychiatric interview, to assess psychodemographic data and psychiatric history.

3- ICD – 10 symptom check list, for the diagnosis of conduct disorder.

4- Psychological tests:

A. Good Enough-Harris test and Matrix Analogies test for I.Q.

B. E.P.Q. for personality

C. Matching familiar figure test, for impulsivity/reflectivity

5- Electroencephalography

Results

Demographic Factors: The study included 21 cases in the *patients group* and 14 individuals in the *control group*. The patient group was further subdivided into two groups:

Group 1 and Group2: Group1 included those who were epileptics and diagnosed according to ICD-10 diagnostic criteria as conduct disorder. This group was formed of 8 cases (38%). One case (4.7%) was diagnosed as unsocialized conduct disorder, another case (4.7%) as socialized conduct disorder, and 6 cases (28%) as oppositional defiant disorder. Group2 was formed of the remaining 13 cases (61.1%) who did not fit the criteria of diagnosis of conduct disorder.

Table (1) shows that the mean age of Group (1) was 16.1($\pm$ 2.1) years, compared with the control group 13.9 $\pm$ 2.2, where t-test for the difference between means revealed that the difference is of high significance, that the older age group was among group1 (G1) i.e. epileptics with conduct disorder. Comparing means of age of Group 2 (G2) with control group, and G1 with G2 showed no significant difference.

Regarding *sex distribution* in the 3 groups, although the presentation of male sex in G1

was more, the chi square test showed no significant difference.

Regarding *sib order*, there was a significant correlation that eldest sibs were among G1 (epileptics with conduct disorder). The mean of sib order in G1 was 1.8 ± 1.4 , in G2 $3.5 \pm .09$, and in the control group 2.1 ± 1.0 .

Looking at *parental absence* among the study group showed that there was a significant correlation by total chi square: parental absence had the least presentation among G1 (0%), followed by G2 (31%) and the highest presentation among the control group (57%).

There was a significant correlation between *poor performance in school* (i.e. either left school because of recurrent failure, or not going school at all) and epilepsy in G1 and G2. Although chi square test showed a significant statistical difference between G1 and G2 regarding school performance, still G1 showed poorer achievement than G2: bad performance among G1 reached 63%, while it was 46% in G2, and absent among the control group.

B. Nature of seizures among the study group:

Table (2) shows the difference between two groups of the study Group1 (epileptic with conduct disorder) and Group2 (epileptics). Comparing the different types of seizures in both G1 and G2, it was found that complex partial seizures and myoclonus types are significantly more present in G1, while absence seizure and kinetic seizure were significantly more present in G2. Grand mal fits were equally present in both groups.

The daily frequency of fits was higher in G1 (88%) than in G2 (69%). However, chi

square tests showed no significant difference.

The age of onset showed no statistical significant difference between the two groups, where age of onset of seizures among G1 was 11.9 ± 2.5 and 11.2 ± 3.8 years among G2.

The table also shows that the duration of illness was longer in G1 (4.2 ± 3.9) than in G2 (3.2 ± 3.6). However, the t-test showed no statistically significant difference.

C. E.E.G. findings

Table (3) shows that an abnormal EEG was significantly more frequent in Group (1) (100%) than in Group (2) (54%).

Also the same table shows a significant correlation between general cerebral dysrhythmia in EEG and G1 (75%), while in G2 the rate was 15% and in the control group it was 0%.

D. Drug therapy among the study group (Table 4):

Duration of treatment seems to be longer in G1 (2.9 ± 4.4) than in G2 (2.1 ± 2.6). However the t-test showed no statistically significant difference. But it was found that there was a significant correlation between the failure to control fits and G1 (100%), while in G2 that rate was 31%.

Concerning the type of treatment, there is no significant correlation between the type of treatment and either group.

E. Psychometric Assessment (Table5):

This study showed that there was a significant correlation between lower I.Q. and epilepsy, G1 and G2, and the control group. Again G1 showed a significantly lower I.Q. than G2.

The results of I.Q by using "Matrix Analogies test" (MAI) showed no significant differences between any of the three groups.

Results of the Eysenck Personality Questionnaire revealed no significant correlation between psychoticism and any of three groups, while neuroticism was more in G1. However there was no statistically significant difference, where the mean for neuroticism in G1 was (9.6+/-4.4), in G2 (8.8 +/- 5.4) and in the control group (7.1+/- 3.5).

Regarding extroversion, epileptics showed a tendency to introversion with a significant

difference between both G1 and G2 on the one hand and the control group on the other.

Scores on the lie scale were higher in G1, however the difference was statistically insignificant.

Matching familiar figure test (M.F.F.T.) for impulsivity was significantly higher among G1. G1 showed (31.9+/-1.2) errors in a latency of (23.1+/-10.4 sec), while G2 showed (16.5+/-8.8 errors) in a latency of (23.6+/-208 sec.), and the control group showed (19.0+/-6.4 errors) in a latency of (11.6+/- 6.7 sec.)

Table (1) Demographic data of the study group:

	Group 1 Epileptic + Conduct N = 8		Group 2 Epileptic N = 2		Control		Group 1 Vs Control	Group 2 Vs Control	Group 1 Vs Group 2
Sex									
Female	2		6		5		X ² = 0.70	X ² = 0.03	X ² = 0.94
Male	6		7		9		p > 0.05	p > 0.05	p > 0.05
Age	16.1 ± (2.1)		14.2 ± (2.2)		13.9 ± (2.2)		t-test = 4.06 p < 0.01	t-test = 2.03 P < 0.05	t-test = 1.97 p > 0.05
Family size	6.0 ± (3.0)		7.2 ± (2.1)		6.7 ± (2.2)		p > 0.05	p > 0.05	p < 0.05
Sib order	1.8 ± (1.4)		5.8 ± (0.4)		2.1 ± (1.0)		p > 0.05	p < 0.01	* p < 0.01
Parental absence									
Present	0	0%	4	31%	8	57%	X ² = 7.18	X ² = 1.9	X ² = 3.04
Absent	8	100%	9	69%	6	43%	P < 0.01	P > 0.05	P > 0.05
School perfor.									
Good	3	83%	7	54%	14	100	X ² = 11.32	X ² = 8.31	X ² = 0.53
Bad	5	63%	6	46%	0	0	P < 0.01	P < 0.01	P > 0.05

Table (2) Nature of seizures among the study group

	Group 1 Epileptic + Conduct disorder N = 8		Group 2 Epileptic N = 13		
Seizure type	No	%	No	%	
Akinetic	0	0	3	23	X ² = 10.82 p > 0.05
Absence	0	0	4	31	
Complex partial seizure	2	25	0	0	
Grand mal fits	4	50	6	46	
Myoclonus	2	25	0	0	
Frequency of seizure					
Daily	7	88	9	69	X ² = 0.91 p > 0.05
Sporadic	1	13	4	31	
Age of onset	11.9 ± (2.5)		11.3 ± (3.8)		t-test = 0.42 p > 0.05
Duration of illness	4.2 ± (3.9)		3.2 ± (3.6)		t-test = 0.59 p > 0.05

Table (3) EEG Findings

	Group 1 Epileptic + Conduct N = 8		Group 2 Epileptic N = 2		Control		Group 1 Vs Control	Group 2 Vs Control	Group 1 Vs Group 2
EEG	No	%	No	%	No	%			
Normal	0	0	6	46	12	86	X ² = 15.0% *p < 0.01	X ² = 4.75 *p < 0.01	X ² = 5.17 *p < 0.01
Abnormal	8	100	7	45	2	14			
Dysrhythmia in EEG									
Present	6	75	2	15	0	0	X ² = 15.9 *p < 0.01	X ² = 12.8 *p < 0.01	X ² = 7.46 *p < 0.01
Absent	2	25	15	85	14	100			

Table (4) Drug therapy among the study group:

	Group 1 Epileptic + Conduct N = 8		Group 2 Epileptics N = 2		
Duration of treatment (years)	2.9 (4.4)		2.1 (2.6)		t-test = 0.49 *p > 0.05
Control of fits	No	%	No	%	
Controlled	0	0	9	69	X ² = 9.69 *p < 0.01
Not controlled	8	100	4	31	
Type of treatment					
Carbamazepine	5	62	11	85	X ² = 7.46 *p < 0.01
Valproate	1	13	0	0	
Phenytoin	0	0	1	7.5	
Poly therapy	2	25	1	7.5	

Table (5) Psychometric assessment:

	Group1 Epileptic + Conduct N = 8	Group 2 Epileptic Only N = 2	Control	Group 1 Vs Control	Group 2 Vs Control	Group 1 Vs Group 2
I.Q. Using Good- Enough test	84.4 (±8.5)	87.9 (10.3)	96.6 (7.2)	U-test = 2.62 *P<0.01	U-test = 2.27 *P<0.01	U-test = 0.87 p>0.05
I.Q. Using MAT	29.3 (11.1)	23.2 (13.0)	27.3 (12.8)	U-test = 2.33 p>0.05	U-test = 1.02 p>0.05	U-test = 0.95 p>0.05
E.P.Q. Psychoticism	5.6 (1.8)	7.2 (4.3)	5.3 (1.5)	U-test = 0.35 p>0.05	U-test = 0.79 p>0.05	U-test = 0.73 p>0.05
Neuroticism	9.6 (4.4)	8.8 (5.4)	7.1 (3.5)	U-test = 1.10 p>0.05	U-test = 0.59 p>0.05	U-test = 0.80 p>0.05
Introversion	12.0 (2.9)	11.3 (4.0)	15.3 (2.4)	U-test = 2.34 *P<0.01	U-test = 3.14 *p<0.01	U-test = 0.22 p>0.05
Lie scale	13.0 (3.8)	10.8 (3.0)	12.6 (1.9)	U-test = 0.55 p>0.05	U-test = 1.77 p>0.05	U-test = 1.14 p>0.05
M.F.F.T. for Impulsivity Errors	31.9 (11.2)	16.5 (8.8)	19.0 (6.4)	U-test = 2.61 *P<0.01	U-test = 0.83 p>0.05	U-test = 2.62 *p<0.01
Latency	23.1 (10.4)	23.6 (20.8)	11.6 (6.7)	U-test = 8.18 *P<0.01	U-test = 1.98 p>0.05	U-test = 0.07 p>0.05

* = Significant

Discussion

In a study of conduct disorders in a sample of Egyptian epileptic adolescents, it was found that they are at risk for developing behaviour disorders. The present study is a trial to demonstrate different factors that may contribute to that risk.

As regards demographic variables (Table1), the current study shows that conduct disorders were unrelated to age, which agrees with the study performed by Eppright et al. (1993).

Many studies state that disturbed behavior tends to occur in epileptic males more frequently than in females (Treiman and Delgader-Escuta, 1983; Herzberg and

Fenvick, 1988; Cull, 1989; Egan, 1991 and Kaplan, 1994.

Other studies showed that conduct disorder was unrelated to sex (Alder, 1993 and Eppright, 1993), which coincides with the result of our study.

Studies showed a great link between the large family size and behavioral disturbance among epileptics (Hendreu, 1991). In our study results showed the contrary, where evidenced significant relationship was detected between the group of the study denoting that the largest family size is not among G1, inversely to the expected, where large families are better adapted and show least disruptive behavior among epileptic

sibs, which is in agreement to other studies (Fenwick, 1987 and Joseph et al. 1997).

This probably is due to the fact that in large families the responsibility for care is dispersed among large number of people.

Studies showed that the great risk for conduct disorder was always in the middle child (Herrdreu, 1991), while in our study, the eldest siblings is found to experience greater distress than others, and shows more disturbed maladjustment conduct. This may be due to over protection of the families. The result comes hand to hand to other studies which stated the same results (Fenwick, 1987).

All studies stated that vulnerability of epileptic children to develop delinquency increased in single parent house holding (Rosen and Tookey, 1987; Fenwick, 1987; Hendreu, 1991; Farrington, 1994 and Kaplan et al., 1994).

This does not coincide with the result of our study, which show that parental absence is more presented in the control group, and Group2, than Group1. This may be due to the presence of an extended family in our culture, which minimize the effect of parental absence a strong variable in the pathogenesis of conduct disorder.

Although studies done showed that if a link between epilepsy and delinquency is present, it is predictable for association with school failure, (Seidenberg and Berent, 1992; (Doldyer, 1993; Adler, 1993). Our study showed that those epileptics who had asocial behaviour showed no poor school performance more than other groups, but still noticed in Table (1) that G1 showed more poor performance than G2 in comparison to the control group, although statistically data is not significant.

Table (2) shows the nature of seizures among the study group, there was fair measure of agreement that children with epilepsy are more prone to behavioural disorders. The risk of behavioural disorder may vary according to the type of epilepsy. In our study epileptic children with behavioural disturbance having partial complex seizure are found more frequently presented Which matched similar results done by other studies (Rebier, 1990; Toone, 1993; Christopher and Kanka, 1997)

Also in our current study, comparison of types of seizures among G1 and G2 revealed that akinetic and absence seizure types were more in present equally in both groups. However, these findings had no support from other studies for their significance. Regarding the frequency of seizures before treatment, in our study, it was found daily frequency of fits was presented more in G1 than in G2 however statistically showed no significance, which agrees with the study of (Perez et al, 1993).

In our study, the epileptic patient with conduct disorder was not found to be associated with earlier age of onset of seizures. This comes contradicting to studies stating that the earlier the age of onset of seizures, the more likely it was that delinquency or disruption of behaviour will develop later (Fenwick, 1987; Herzberg and Fenwick, 1988; Thompson, 1989; Rautakallia et al., 1992).

Also, it was found in the study that long-standing duration of epilepsy was not associated with behaviour disturbance in children, which disagreed with the study stating the contrary (Notle and Walff, 1992).

Table (3) shows EEG abnormal findings and cerebral dysrhythmia in our study was

found to be an important correlation of conduct disorder and delinquency, which came coinciding to the results of other previous studies (Farrington, 1994 and Abdul Ghani et al, 1994).

Table (4) shows the drug therapy among the study group, where behaviour disturbance was significantly related to active seizure period in the current study, which was found to be coinciding with other studies (Notle and Wolff, 1992).

Also other studies stated that carbamazepine showed protective effect on aggression and behaviour (Denband and Hanter, 1992), this did not fit with the results of our study which show no relation between conduct disorder and type of treatment.

This may be related to uncompliance of the patient to the treatment, and usage of more than one therapy.

Table (5), showed psychometric assessment, where studied showed that disturbed behaviour in epileptics is more frequent in-patients whose intelligence tended to be low (Treiman and Delgado-Escueta, 1993; Farrington, 1994; Pine Daniel et al. 1997).

On the contrary, our current study showed that over all I.Q. is not significantly lower in the group of delinquents, which coincides with other studied and with the same results (Fenvick, 1987; Renier, 1990 and Adler, 1993).

In the current study, the epileptic adolescents reported to meet the criteria of conduct disorder, were subjected to Eysenck Personality Questionnaire, group mean scores for conduct disorder, G1, when compared with those of other G2 and control Group, were found to be

significantly higher in introversion, which coincided to other studies (Wallace, 1993; Treiman, 1993 and Jerame and Segal, 1997).

While our study show no significantly difference concerning psychoticism, neuroticism and lie scale (Fencuick, 1987; (Gabry, 1988 and Lawton, et al, 1997).

Comparing the statistical difference between the three groups in our study regarding impulsivity versus reflectivity, the result showed that the mean total number of errors in a mean time in second was in G1 higher as seen in Table (5), where personality changes in epileptics in those found to be associated with conduct disorder are more impulsive, which agrees with result of other studies (Fenvick, 1987; Pliszka and Steven, 1991; Treiman, 1993; Farrington, 1994).

So in a study of conduct disorders in a sample of Egyptian Epileptic adolescents, it was found that they are at risk for developing behaviour disorders.

Factors that may contribute to that risk, was found to be eldest sibs, poorer school performance, lower I.Q., impulsivity, introversion, uncontrolled seizures, abnormal EEG, and presence of cerebral dysrhythmia in EEG, showed high significant correlation for high vulnerability of occurrence of conduct disorders in epileptic adolescents.

Male gender, neuroticism, high scores of lie scale longer duration of illness, longer duration of treatment, complex partial seizures, and myoclonic types of seizures are found to be suspected risk factors to the occurrence of conduct disorder in epileptic adolescents, but not significantly proven. Other risk factors as large family size parental absence, psychoticism, earlier age

of onset of seizures types of treatment, over no doubt as yet unsuspected.

Hence constructing high risk programs as primary prevention which aims to prevent disorders in children and adolescents groups believed to be at increased risk for conduct disorder.

As a secondary prevention interviewing of the epileptics must include information regarding seizures, developmental, behavioural sociodemographic data trying to identify early those children who are at risk for developing antisocial behaviour and to construct a preventive programs, to prevent the change of course of offending behaviour into groups of established delinquents, specially designed for the teachers and parents to identify disturbed behaviour as early as possible.

Also essential education of parents and teachers to recognize the fact that epilepsy is not accepted as an excuse for low attainment, only more supervision showed is included for promoting their health development.

References

- Adul Ghani M.O., Taman K.H., Bishry Z., Hefny K. (1994)** The value of Electroencephalography in predication of behavioural changes in epileptic children, Egyptian Journal Neural. Psychiat. Neurosurg, 31(2) : 85 – 9.
- Alder R., (1993):** Delinquency, Current opinion of Psychiatry, 6(6): 754 – 757.
- Bagley Ch and Mallick K (1997).** Temperament, CNS Problems and Maternal Conduct disorder. Perceptual and Motor skills. Apr. vol 84(2): 617 - 618.
- Barker P., (1988):** conduct disorders – In: Basic child psychiatry, Ch. 4:72 – 78. Black well scientific publications, London.
- Boldyer A.F. (1993)** The pathomorphosis of personality changes in epileptic. Journal of Russian and East European Psychiatry: 25(4): 62 – 67.
- Cull C.A. (1989):** Cognitive function and behaviour in children In: Trimble K, and Reynolds H. (eds): “Epilepsy, Behaviour, and cognitive function: Ch. 8:96 – 106. John Wiley and Sons.
- Denb S., and Hunter D. (1992)** the effect of anticonvulsant medication on the - psychopathology of adults with a mental handicap and epilepsy. Human psychopharmacology clinical, and Experimental March, April., 7(2): 129 – 134.
- Egan, J., (1991):** Oppositional defiant disorder. In: Winner J.M., (ed): “Text Book of child and adolescent psychiatry”, Ch.24: 278 – 278. British Library cataloging in publication data.
- Eppriget T.D., Rashani J.H., Robison, B.D., and Raid J.C., (1993):** Comorbidity of conduct disorder and personality disorder in an incarcerated juvenile population. American Journal of Psychiatry, August.
- Farrington D. (1994).** Delinquency: Methodological advances. Current opinion of psychiatry, November, 7(6): 452 – 455
- Fen wick P., (1987):** Epilepsy and psychiatric disorders – In: Hopkins A.(ed) “Epilepsy”, Ch. 18:511 – 542 Chapman hall, London.
- Fenwick P. (1989)** The nature and management of aggression in epilepsy. Journal of neuropsychiatry and clinical Neuro science, 1 (4): 418- 425.
- Gabry S.J., Kay P., Grace R., Kent U., (1988)** Personality attributes of children with conduct disorder. Psychological – Reports, February, 62(1): 63 – 69.

Hendreu R.L. (1991) Conduct disorder in childhood. In: Winner J.M., (ed), "Textbook of child and adolescent psychiatry". British Library Cataloguing in Publication Data.

Herzberg J.L., and Fenwick P.B. (1988): The aetiological of aggression in temporal lobe epilepsy. British Journal of Psychiatry, July, 153: 50 – 5.

Jerome L, Segal, A (1997) ADHD and dangerous driving journal of American Academy of Children and adolescent psychiatry. Oct. Vol 36(10) : 1325.

Joseph R., Michelle S., Se Fong H., David D. and Houise N.(1997) Rivendell child, Adolescent and Family Services. Archives of general psychiatry Sep. Vol 54(9): 817 – 822.

Kaplan H.J., Sadock B.J., and Gebb J.A., (1994) Disruptive behaviour disorder. In: Kaplan and Sadock's synopsis of psychiatry: "Behavioural sciences, clinical psychiatry" 7th edn., Ch. 40:1072. William and Wilkins. Company, Baltimore, Maryland.

Kaplan K, Sadeck B.J., and Gebb J.A., (1994): Forensic Psychiatry. In: Kaplan and Sadock's symposium of psychiatry: Behavioural science clinical psychiatry the edr., Ch. 51 : 1180 – 1183. Williams and Wilkins Company Baltimore, Maryland.

Lawton B., Michael F., Baier M., Laurel C. (1997). Conduct disorder and antisocial personality in adult primary care patients Journal of Family Practice. Aug. Vol. 54(2): 151 – 158.

Not let., and Wolf M. (1992): behavioural and developmental aspects of primary generalized myoclonic Asiatic epilepsy. Epilepsy – Res – Suppl., 6:175 – 83.

Perez R, Davidoff, U., Despland P.A., Deonna, T. (1993): Mental and behavioural deterioration of children epilepsy and C.N.S., acquired epileptic frontal syndrome. Dev. Med Child Neural., August, 35(8) : 661 – 74.

Pine D, Shaffer D, Schonfeld Z and Dairs M (1997) Minor Physical anomalies modifiers of environmental risks for psychiatric impairments. Journal of the American Academy of Child and Adolescent psychiatry Mar: Vol 36(3): 395 – 403.

Pliszka, and Steven R. (1991) Anticonvulsants in the treatment of child and adolescents psychopathology. Special issue: Child psychopharmacology. Journal of clinical child psychology, September, 20(3): 277 – 281.

Rauta Kallia P., Koiranin M., and Mottonen J., (1992): Association of perinatal events, epilepsy and C.N.S. trauma uteri Juvenile delinquency. Arch. Dis. Child, December, 67 (12): 1459 – 61.

Rebier W.O.(1990) Learning disabilities and behavioural problems in children with epilepsy. Wein: Klin – Wochensclin., April, 13, 102(8): 218 – 220.

Renier W.O. (1990): Learning disabilities and behavioural problems in children with epilepsy. Wein – Klin – Wochensclin, April, 13, 102(8): 218 – 22.

Rosen E.M., and Tookey P.(1989) Education needs and epilepsy in childhood. In: Trimble R., and Reysolds E., (esd): "Epilepsy, behaviour, and cognitive function". Ch. 7:87 – 95. John Wiley and Sons.

Thompson P.J. (1989): Methods and problems in! Assessment of behaviour disorder in epileptic patients. In: Trimble

M.R., and Reynolds E.H., (eds) "Epilepsy, behaviour, cognitive function" Ch. 3:27 – 38 'Willy and sons'.

Toone B. (1993) Psychiatric aspects of epilepsy. Current opinion of psychiatry, February, (1): 117 – 120.

Treiman D.M. (1993) Epilepsy and the law. In: Laid Low J., Richens A., and Chadwick D., (eds) "A text book of Epilepsy". Ch. 20:645 – 657. Churchill Livingstone, London.

Treiman D.M., and Delgado – Escueta, A., (1983): Violence and Epilepsy: A critical review. In *Pedley, T.A., and Medrin, B.S., (eds) "Recent advances in Epilepsy" Ch. 11:179 – 211. Churchill Livingstone, London.*

Wallace S.J. (1993): Seizures in children. In: Laid Low J, Richens A., and Chadwick D., (eds) A text book of Epilepsy. Ch.

4:151 – 154. Churchill Livingstone, London.

Authors

Prof. Z. Bishry
Professor of Psychiatry

A.H. Khalil
Prof. of Psychiatry

S. Ashour
Prof. of Neurology

M. Omar
Lecturer of Psychiatry
Institute of Psychiatry
Faculty of Medicine
Ain Shams University

Address of Correspondence

Prof. Z. Bishry
Professor of Psychiatry
Institute of Psychiatry
Faculty of Medicine
Ain Shams University

دراسة اضطراب المسلك

في عينه من مرضى الصرع المصريين في سن المراهقة

نظرا لأن معدل انتشار أمراض الصرع في الأطفال من سن ١٠ – ٢٠ سنة حوالي ١,٥ ٪، وحيث أنه وجد أن الأطفال المصابين بمرض الصرع هم أكثر عرضة للإصابة باضطرابات المسلك، وحيث أن عدد المراهقين يمثل قطاعا كبيرا من المجتمع لا يستهان به، فقد تم عمل دراسة على مرضى الصرع وعددهم ٢١ مريض، وقد اختيرت العينة من العيادة الخارجية للصرع بمستشفيات جامعة عين شمس على أن تتراوح أعمارهم من ١٢ – ١٨ سنة، مع استبعاد المرضى اللذين تقل معدلات ذكاؤهم عن ٨٠ وكذلك هؤلاء اللذين يعانون من مرضى عضوى أو عصبي خلاف الصرع أو مرض نفسي خلاف اضطراب المسلك لمدة ٣ أشهر وهي مدة البحث. وقد جاءت النتائج معظمها مطابقة لما وجد في الأبحاث السابقة، فوجد أن الترتيب الأكبر للأخوة، ضعف الأداء الدراسي، وجود تاريخ قديم لإصابة الجهاز العصبي، ضعف مستوى الذكاء، الانطواء وعدم توقف النوبات الصرعية ووجود موجات غير طبيعية برسم المخ كلها عوامل لها علاقة واضحة بحدوث اضطراب المسلك لدى الأطفال أو المراهقين المصابين بالصرع. كما وجد أن نوع وحدة الإصابة بمرض الصرع لها علاقة واضحة باضطراب المسلك وإن كانت لم تكن ذات دلالة إحصائية في هذا البحث، ربما لصغر حجم العينة. من ناحية أخرى لم يكن لكثرة عدد أفراد الأسرة، أو غياب أحد الأبوين، أو حدوث مرض الصرع في سن مبكرة، علاقة إحصائية ذات دلالة حدوث اضطراب المسلك في مرضى الصرع في هذه الدراسة.