RESULTS

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Table (1) showed the age distribution of both groups, complex partial seizure (CPS) and idiopathic grand mal epilepsy (GME) groups. It was observed that the younger age group is the most frequent one (58%) in both groups. The older one is the least frequent one, being 16% in CPS group and 18% in the GME group. The mean age is 26.36 ± 10.19 years in the CPS group and 27.48 ± 11.23 years in the GME group.

From table (2) it was noticed that males are more frequent than females representing 82% in CPS group and 88% in the GME group.

Table (3) showed the distribution of the duration of illness in both patient groups. It was observed that the mean duration of the CPS group is 112.02 ± 70.5 months (ms) and that of the GME group is 124.92 ± 81.08 ms.

Table (4) showed that 2% only of both patient groups reached a higher level of education (the college). It also showed that 52% of the CPS group and 46% of the GME group

failed in reaching higher level of education being stopped at the level of prep school. This means that epilepsy is associated with learning difficulties.

From table (5), it was noted that post-traumatic epilepsy is the most frequent one (42%) in the CPS group, followed by post-infection (8%), temporal glioma (4%) and then others. No etiology was detected in 34% in the CPS group and in 100% in the GME group.

Table (6) showed that computerized axial tomography (CT) scan is abnormal in 12% in the CPS group while no abnormalities were detected in the second group. Temporal gliomas represent 4%, asymmetry of both lateral ventricles represent 4%, while stroke 2% and encephalomalacia 2%.

Table (7) showed that abnormal electroencephalographic (EEG) manifestations were 78% in the CPS group and 58% in the GME group. The right and left hemispheric abnormalities of the CPS group were (18%, 22% respectively) more than that of the GME group (12%, 16% respectively).

From table (8) it was observed that there is a significant difference between the four subgroups of both CPS and GME groups (classified according to different lengths of epilepsy duration) on the full intelligence quotient(I.Q.) and deterioration index (Det. Ind.) scales, while there is no significant difference on the schizophrenic scale. It also showed that the lowest full I.Q. (72.17 ± 15.23 in the CPS and 73.18 ± 15.23 in the GME) and the highest Det. Ind. (30.57 ± 29.01 in the CPS and 23.42 ± 11.84 in the GME) were in the subgroup of the longest duration and vice versa.

Table (9) showed that there is a significant difference between the three subgroups of the CPS group on the full I.Q. and the Det. Ind. scales and between them on the Det. Ind. scale of the GME group while there is no significance difference on the schizophrenic scale. It was observed that the lowest full I.Q. (reaching the borderline I.Q. scores of the standards) and the highest Det. Ind. were in the subgroup of the highest frequency.

From table (10) it was noted that in the CPS group, there is a negative significant correlation (sig. cor.)

As for the upper range of the Det. Ind. (> 20), there is a dependency (χ^2 = 4.52, P < 0.05) between EEG abnormalities normalities and a patient being a CPS or a GME, it is more likely for a GME patient to have EEG abnormalities than a CPS would.

From table (21) we observed that there is a significant difference between the CPS and the GME groups on the anxiety, psychosomatic and depressive scales of MSHQ. This means that they occur more frequently in the CPS group. It was noted that the mean scores of the scales reach the pathologic value (score ≥ 8) except that of hysteria in both groups.

There is a significant difference between the four subgroups of the CPS (classified according to the EEG laterality) on the anxiety (F = 2.17, P < 0.05) and depressive (F = 2.10, P < 0.05) scales., and of the GME on the anxiety (F = 2.12, P < 0.05) and psychosomatic (F = 2.21, P < 0.05) scales. It was observed that the right focus subgroups have the higher (worst) means on the anxiety, depression and psychosomatic scales while the normal EEG subgroups have the least scores (Table 22).

Table (23) showed that the incidence of significant (pathologic) neurotic traits (≥ 8) were surprising. The depressive trait represent the higher frequency of incidence, being 82% in the CPS group and 58% in the GME group followed by obsessionalism, anxiety, psychosomatic, phobia and then hysteria, which represent the lower frequency of incidence being 18% in the CPS and 14% in the GME. Also, it was noted that the incidence of abnormal neurotic traits were higher in the CPS than in the GME except for the phobic scale which is the reverse.

From table (24), it was noted that there is no significant difference between the CPS and the GME groups on the selected scales of the MMPI, schizophrenia, paranoia and psychopathy. However the mean scores of these scales were higher in the CPS group than in the GME group.

Table (25) showed that there is a significant difference on the scales of schizophrenia and psychopathy between the subgroups of the CPS classified according to the presence and laterality of the EEG temporal foci. The left subgroup has the highest (worst) mean scores of schizophrenia (71.18 ± 9.65) and psychopathy (56.18 ±

9.18).

From table (26) it was noted that the pathologic personality traits (score ≥ 70) of the MMPI were common in the CPS group than in the GME group. Psychopathy was the least psychopathology in both groups.

Table (1): Age distribution of both groups, complex partial seizure (CPS) and idiopathic grand mal epilepsy (GME).

Group / Variable	GPS				GME			
	No.	%	$\bar{X}$	S.D.	No.	%	$\bar{X}$	S.D.
15-25 ys	29	58	19.13	3.34	29	58	19.55	3.07
26-35 ys	13	26	31.23	2.91	12	24	29.33	2.50
36-45 ys	8	16	41.62	5.04	9	18	42.37	4.57
Total	50	100	26.36	10.19	50	100	27.48	11.23

No. = Number of patients
ys. = years
$\bar{X}$ = Mean
S.D = Standard deviation

Table (2): Sex distribution of both groups, CPS and GME group.

Group / Variable	CPS		GME	
	No.	%	No.	%
Male	41	82	44	88
Female	9	18	6	12
Total	50	100	50	100

Table (5): Etiology of epilepsy in both patient groups

Group	CPS		GME	
Variable	No.	%	No.	%
Trauma	21	42	0	0
Infections	4	8	0	0
Temporal glioma	2	4	0	0
Neurocutaneous disease	1	2	0	0
Stroke	1	2	0	0
Iatrogenic	1	2	0	0
Infantile jaundice	1	2	0	0
Idiopathic	19	38	50	100
Total	50	100	50	100

Table (6): Results of computerized axial tomography (CT) scan of both patient groups.

Group / Variable	CPS No.	CPS %	GME No.	GME %
I. Normal CAT	44	88	50	100
II. Abnormal				
1- Temporal glioma	2	4	0	0
2- Asymmetry of lateral ventricles	2	4	0	0
3- Post-stroke	1	2	0	0
4- Tempro-parietal enephalomalacia	1	2	0	0
Total	50	100	50	100

Table (7): Electroencephalographic (EEG) results of the two patient groups.

Group / Variable	CPS No.	CPS %	GME No.	GME %
I. Normal EEG	16	32	21	42
II. Abnormal EEG	34	78	29	58
1- Right focus	9	18	6	12
2- Left focus	11	22	8	16
3- Bilateral foci	14	28	15	30
Total	50	100	50	100

Table (8): Shows the F-test scores between the four subgroups of both patient group classified according to the length of illness duration on some selecte psychometric variables.

Group	subgroup / variable	1-5 ys.		6-10 ys.		11-15 ys.		16-20 ys.		F	P
		$\bar{X}$	S.D.	$\bar{X}$	S.D	$\bar{X}$	S.D.	$\bar{X}$	S.D.		
		n = 15		n = 17		n = 11		n = 7			
CPS	Full I.Q	86.66	15.37	79.54	13.80	76.23	12.40	72.17	15.23	2.25	< 0.05
	Det. Ind.	13.40	8.14	19.70	8.58	22.27	11.25	30.57	29.01	2.71	< 0.05
	Schizophrenia	57.46	11.45	63.94	11.11	64.18	14.10	65.28	12.75	1.12	n.s.
		n = 16		n = 14		n = 6		n = 14			
GME	Full I.Q.	85.35	11.07	83.33	9.62	80.06	13.51	73.18	15.23	2.19	< 0.05
	Det. Ind.	11.75	8.18	20.16	13.04	21.29	11.83	23.42	11.84	3.37	< 0.05
	Schizophrenia	60.00	9.51	59.85	11.54	57.16	11.85	65.85	11.50	1.25	n.s.

I.Q = Intelligence Quotient

Det. Ind. = Deterioration Index

n = Number of patients

n.s. = Non significant

< 0.05 = significant

Table (9): Shows the F-test scores between the three subgroups of both pati groups classified according to the frequency of fits per month some selected psychometric variables.

Group	subgroup variable	1-5 month		6-10 month		> 100 month		F	P
		$\bar{X}$	S.D.	$\bar{X}$	S.D	$\bar{X}$	S.D.		
		n = 22		n = 16		n = 12			
CPS	Full I.Q	86.40	15.87	80.25	14.28	71.83	11.15	2.23	< 0.(
	Det. Ind.	13.86	8.52	22.12	8.03	27.33	9.86	2.19	< 0.(
	Schizophrenia	63.86	11.59	59.18	13.04	63.33	12.34	0.73	n.s
		n = 37		n = 10		n = 3			
GME	Full I.Q.	86.33	14.15	81.15	12.91	75.9	15.03	1.12	n.s
	Det. Ind.	15.37	10.33	22.00	4.35	30.90	10.51	6.27	< 0.(
	Schizophrenia	60.89	10.70	62.00	13.54	63.33	9.01	0.09	n.s

Table (10): Correlations between Intelligence Quotients (IQs) and Det. Ind. of the Wechsler-Bellevue Adult Intelligence Scale (WAIS) with some neurological variables.

Group	Variable	Verbal I.Q.	Performance I.Q.	Full I.Q.	Det. Ind.
CPS	Duration of illness	- 0.36*	- 0.21	- 0.27*	0.34*
	Frequency of fits	- 0.19	- 0.92*	- 0.28*	0.32*
	Status epilepticus	- 0.12	- 0.15	- 0.31*	0.33*
GME	Duration of illness	- 0.27*	- 0.21	- 0.23	0.28*
	Frequency of fits	- 0.09	- 0.19	- 0.16	0.44*
	Status epilepticus	- 0.12	- 0.14	- 0.29*	0.51*

Critical value = ± 0.27

* = Significance ($P < 0.05$)

Table (11): Correlations between memory subscales of the WAIS with some neurological variables

Group	Variable	Information	Digit span	Digit symbol
CPS	Duration of illness	- 0.29*	- 0.31*	- 0.13
	Frequency of fits	- 0.21	- 0.32*	- 0.42*
GMC	Duration of illness	- 0.18	- 0.35*	- 0.27*
	Frequency of fits	- 0.12	- 0.23	- 0.34*

Critical value = ± 0.27

* Significance ($P < 0.05$).

Table (12): Correlations between some cognitive variables of the WAIS and some selected personality variables of the Minnesota Multiphasic Personality Inventory (MMPI).

Group	Cognitive variable / Personality variable	Verbal I.Q	Performance I.Q	Full I.Q	Det. Ind..
CPS	Schizophrenia	- 0.28*	- 0.17	- 0.33*	0.29*
	Paranoia	- 0.25	- 0.21	- 0.16	0.30*
GME	Schizophrenia	- 0.42*	- 0.20	- 0.35*	0.31*
	Paranoia	- 0.34*	- 0.24	- 0.28*	0.09

Critical value = ± 0.27

* = Significance (P < 0.05).

Table (13): Correlation between some selected personality variables of MMPI with some neurological variables.

Group	Variable	Psychopathy	Paranoia	Schizophrenia
CPS	Duration of illness	0.24	0.09	0.19
	Frequency of fits	0.09	0.12	0.07
	Status epilepticus	0.10	0.29*	0.31*
GME	Duration of illness	0.02	0.18	0.17
	Frequency of fits	0.14	0.16	0.09
	Status epilepticus	0.17	0.27*	0.32*

Critical value = ± 0.27

* = Significance (P < 0.05)

Table (14): Correlations between personality variables of Middlesex Hospital Questionnaire (MSHQ) with some neurological variables.

Group	Variable	Anxiety	Phobia	Obsession-alism	Psychoso-matic	Depres-sion	Hysteria
CPS	Duration of illness	0.28*	0.24	0.12	0.17	0.35*	0.12
	Frequency of fits	0.29*	0.23	0.09	0.07	0.10	0.03
GME	Duration of illness	0.23	0.28*	0.23	0.28*	0.03	0.24
	Frequency of fits	0.35*	0.05	0.06	0.13	0.15	0.01

Critical value = ± 0.27

* = Significance ($P < 0.05$)

Table (15): Numbers and percentages of some abnormal clinical symptoms of autonomic variablesin both groups.

Group / Variable	CPS n=50 No.	CPS n=50 %	GME n=50 No.	GME n=50 %	t for ratios	P
Palpitation	14	28	11	22	0.69	n.s
Flushing	9	18	6	12	0.84	n.s.
Dizziness	15	30	6	12	2.20	< 0.05
Fainting	9	18	4	8	1.98	< 0.05
Sweating	12	24	10	20	0.48	n.s.
Bladder disturbances	6	12	5	10	0.32	n.s.
Impotence (n. of married males = 12)	6	50	2	16.66	1.97	< 0.05

Table (16): Number and percentages of abnormal results of some autonomic tests in both groups.

Group / Variable	CPS n=50 No.	CPS n=50 %	GME n=50 No.	GME n=50 %	t for ratio	P
Blood pressure response to stand	15	30	6	12	2.20	< 0.05
Blood pressure response to stress	12	24	5	10	1.99	< 0.05

Table (17): Numbers and percentages of abnormal results of electrocardiogram (ECG) in both groups.

Group / Variable	CPS n=50		GME n=50		t for ratios	P
	No.	%	No.	%		
1- Arrhythmia	5	10	3	6	0.73	n.s.
2- P. wave	2	4	1	2	0.58	n.s.
3- P-R interval	2	4	1	2	0.58	n.s.
4- QRS complex	1	2	0	0	1.01	n.s.
5- QRS axis	1	2	0	0	1.01	n.s.
6- ST segment	0	0	1	2	1.01	n.s.
7- T wave	0	0	1	2	1.01	n.s.
8- Prolonged Q-Tc interval	8	16	5	10	0.89	n.s.

Table (18): Means ($\bar{X}$) and standard deviations (S.D.) of some cognitive variables as measured by the WAIS of CPS and

Group / Variable	CPS n=50		GME n=50		t	P
	$\bar{X}$	S.D.	$\bar{X}$	S.D.		
Information	5.21	2.86	8.24	2.66	2.19	< 0.05
Digit span.	5.20	1.41	8.64	3.31	2.27	< 0.05
Verbal I.Q.	78.32	14.53	80.92	13.75	0.91	n.s.
Performance I.Q.	81.66	14.19	84.00	13.69	0.83	n.s.
Full scale I.Q.	79.46	14.40	81.08	13.26	0.58	n.s.
Det. Ind.	19.90	14.22	18.88	11.78	0.39	n.s.

Table (19): The F-test scores between the four subgroups of both paitent groups classified according to laterality of the EEG abnormalities on some selective cognitive variables of WAIS.

Group	subgroup variable	Bilateral foci		Left focus		Right focus		Normal EEG		F	P
		$\bar{X}$	S.D.	$\bar{X}$	S.D	$\bar{X}$	S.D	$\bar{X}$	S.D.		
		n = 14		n = 11		n = 9		n = 16			
CPS	Verbal I.Q.	78.00	14.73	71.11	13.30	79.90	15.61	98.31	15.34	2.19	< 0.05
	Performance I.Q	78.85	17.19	81.75	12.76	76.88	10.26	88.18	14.25	2.11	< 0.05
	Full I.Q.	77.78	16.19	78.87	13.32	80.11	16.50	81.90	13.40	0.17	n.s.
	Det. Ind.	18.50	9.92	29.00	16.02	19.55	11.95	14.43	9.95	2.12	< 0.05
		n = 15		n = 8		n = 6		n = 21			
GME	Verbal I.Q.	79.33	14.43	74.00	9.97	82.37	16.07	83.47	13.35	0.83	n.s.
	Performance I.Q	83.73	13.72	84.50	17.73	84.16	12.70	84.33	13.30	0.01	n.s.
	Full I.Q.	82.20	13.33	80.87	16.25	76.66	11.14	83.04	13.15	0.38	n.s.
	Det. Ind.	22.80	10.59	26.75	15.13	22.33	12.76	12.85	8.60	3.75	< 0.05

Table (20): Chi square (χ^2) values between Det. Ind. in normal and abnormal EEG subgroups, and the two patient groups CPS & GME.

Variable	subgroup Group	Abnormal EEG		Normal EEG		χ^2-value	P
		No.	%	No.	%		
Possible deterioration	CPS	7	14	6	12	1.39	n.s.
11-20	GME	8	16	5	10		
Sure deterioration	CPS	7	14	6	12	4.52	< 0.05
> 20	GME	19	38	3	6		

Table (21): Means and standard deviations of personality variables on MSHQ of both patient groups CPS & GME.

Variable \ Group	CPS n=50		GME n=50		t	P
	$\bar{X}$	S.D.	$\bar{X}$	S.D.		
Anxiety	9.86	4.54	7.61	3.58	2.13	< 0.05
Phobia	7.32	3.40	8.64	3.16	0.48	n.s.
Obsessionalism	9.34	3.06	9.30	2.90	0.06	n.s.
Psychosomatic	9.26	3.88	7.68	3.26	2.20	< 0.05
Depression	10.00	3.80	8.38	3.28	2.27	< 0.05
Hysteria	6.20	2.77	5.28	2.71	1.27	n.s.

Table (22): The significant F-test scores between the four subgroups of both patient grou CPS and GME on the neurotic variables of MSHQ.

Group	subgroup / Variable	Bilateral foci		Left focus		Right focus		Normal EEG		F	P
		$\bar{X}$	S.D.	$\bar{X}$	S.D	$\bar{X}$	S.D	$\bar{X}$	S.D.		
		n = 14		n = 11		n = 9		n = 16			
CPS	Anxiety	9.31	4.31	8.09	3.36	11.55	5.44	7.06	4.12	2.17	< 0.05
	Depression	9.42	4.70	9.22	4.86	11.83	3.47	7.81	2.85	2.10	< 0.05
		n = 15		n = 8		n = 6		n = 21			
GME	Anxiety .	8.26	3.55	7.37	4.37	10.66	2.33	6.90	3.33	2.12	< 0.05
	Psychosomatic	7.06	3.02	7.12	3.83	11.50	3.27	6.52	2.97	2.12	< 0.05

Table (23): Numbers and percentages of normal and abnormal personality traitsof MSHQ in bot patient groups

variable / Group	Anxiety				Phobia				Obsessionalism			
	Abnormal		Normal		Abnormal		Normal		Abnormal		Normal	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
CPS n=50	36	72	14	28	22	44	28	56	37	72	13	2(
GME n=50	24	48	26	52	25	50	25	50	38	76	12	2/
variable / Group	Psychosomatic				Depression				Hysteria			
	Abnormal		Normal		Abnormal		Normal		Abnormal		Normal	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
CPS n=50	35	70	15	30	41	82	9	18	9	18	41	8/
GMe n=50	23	26	27	54	29	58	21	42	7	14	43	8(

Normal i.e. score < 8 Abnormal i.e. score ≥ 8

Table (24): Means and standard deviations of some selected personality variables on the MMPI in both groups.

Group / Variable	CPS n=50		GME n=50		t	P
	$\bar{X}$	S.D.	$\bar{X}$	S.D		
Schizophrenia	64.24	12.18	61.26	11.03	0.42	n.s.
Paranoia	63.08	12.46	59.98	12.11	1.14	n.s.
Psychopathy	50.86	11.66	49.62	11.87	0.52	n.s.

Table (25): The significant F-test scores between the four subgroups of both patient groups some selected personality variables of MMPI.

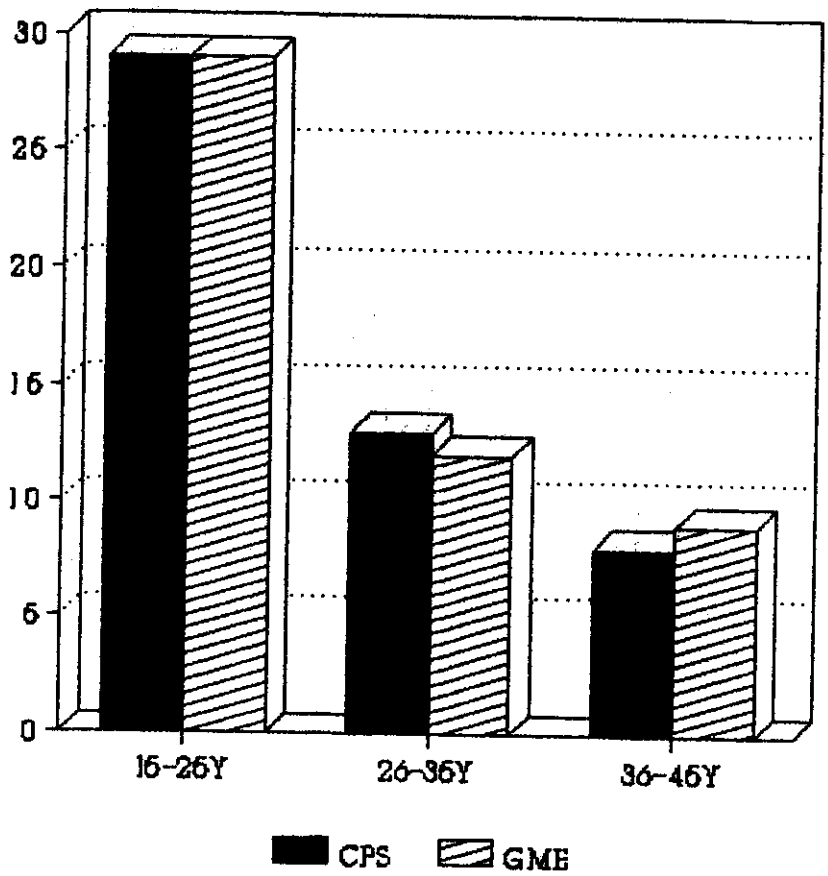
Group	subgroup / Variable	Bilateral foci		Left focus		Right focus		Normal EEG		F	P
		$\bar{X}$	S.D.	$\bar{X}$	S.D	$\bar{X}$	S.D	$\bar{X}$	S.D.		
		n = 14		n = 11		n = 9		n = 16			
CPS	Schizophrenia	65.14	11.31	71.18	9.65	56.44	10.38	58.43	14.31	2.13	< 0.05
	Psychopathy	51.50	11.80	56.18	9.18	52.22	12.45	45.07	11.40	2.11	< 0.05

Table (26): Numbers and percentages of normal and abnormal selected personality variables of MMPI in the two patient groups.

Group	CPS n=50		GME n=50	
Variable	No.	%	No.	%
Schizophrenia				
Abnormal	19	38	14	28
Normal	31	62	36	72
Paranoia				
Abnormal	17	34	13	26
Normal	33	66	37	74
Psychopathy				
Abnormal	5	10	3	6
Normal	45	90	47	94

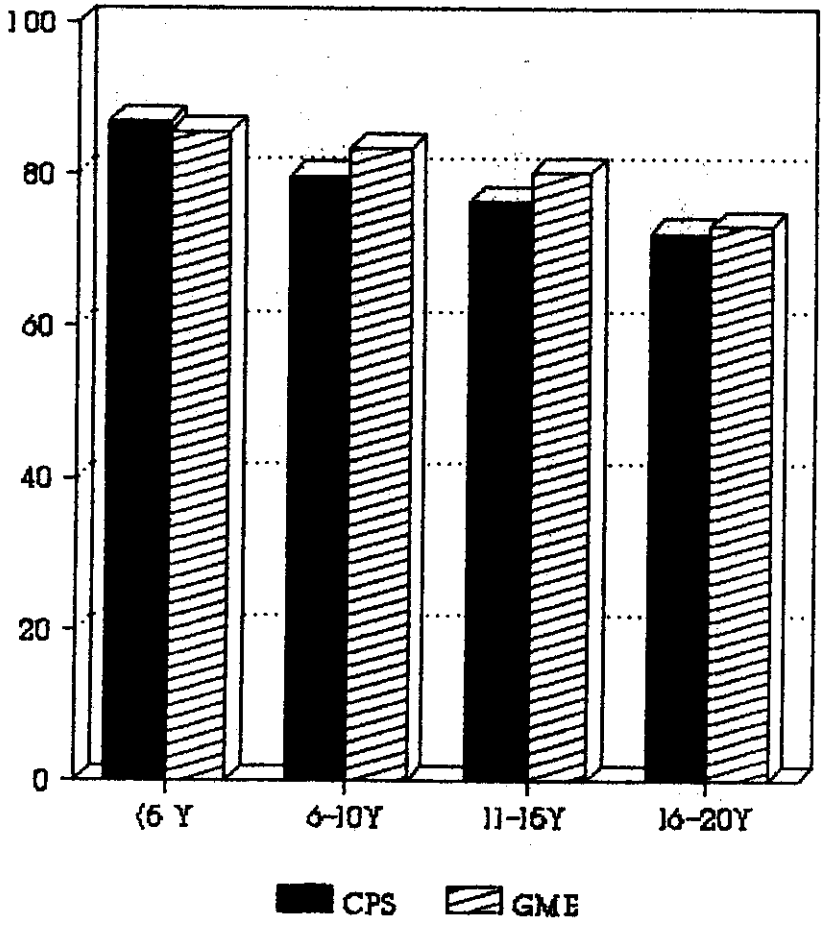
Normal i.e. score < 70 Abnormal i.e. ≥ 70

AGE DISTRIBUTION OF
CPS AND GME GROUPS



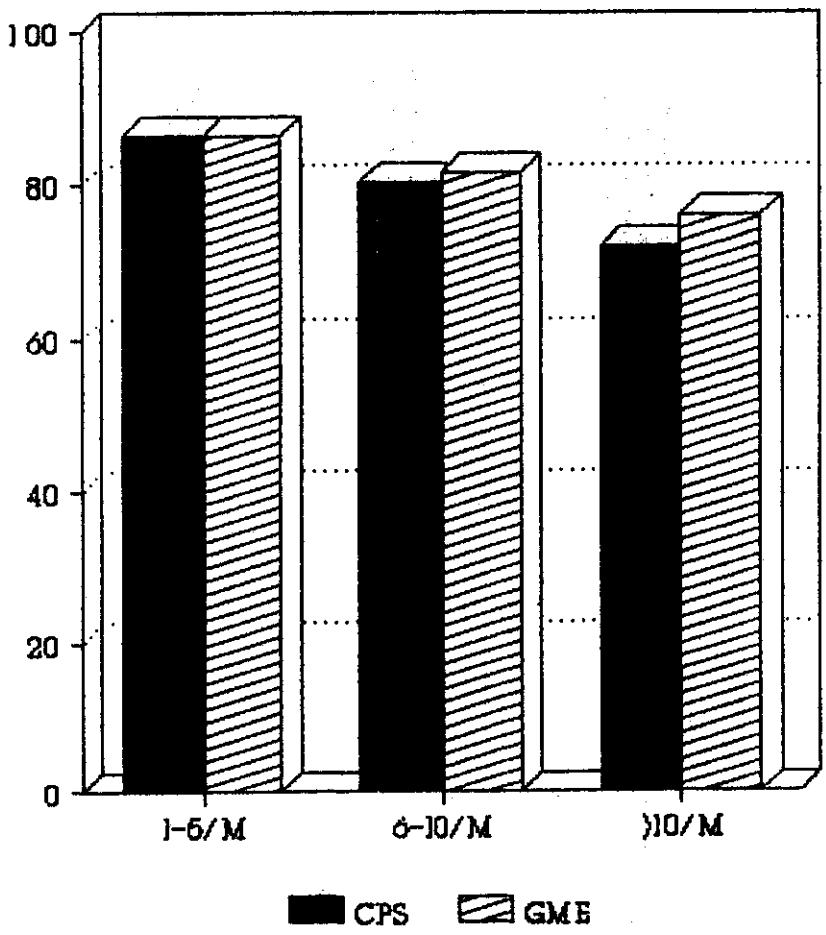
Graph No. (1)

FULL IQ SCOR OF CPS & GME GROUPS ACCORDING TO THE ILLNESS DURATION



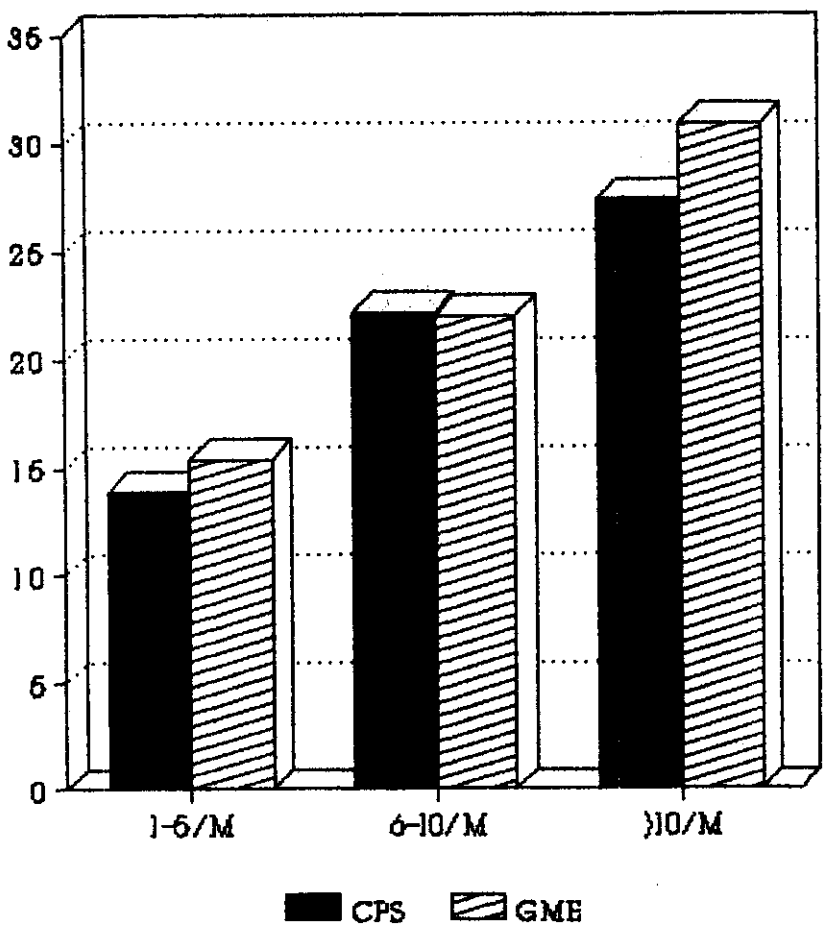
Graph No (2)

FULL IQ OF CPS & GME GROUPS ACCORDING TO THE FREQUENCY OF FITS



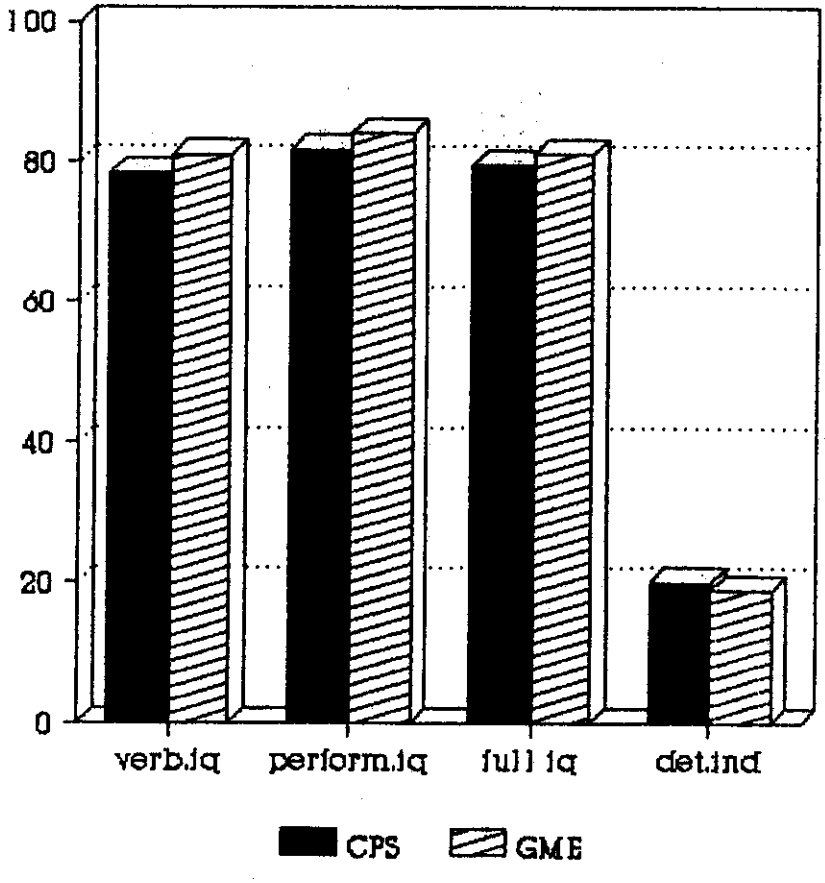
Graph No. (4)

DETINDEX OF CPS & GME GROUPS ACCORDING TO THE FREQUENCY OF FITS



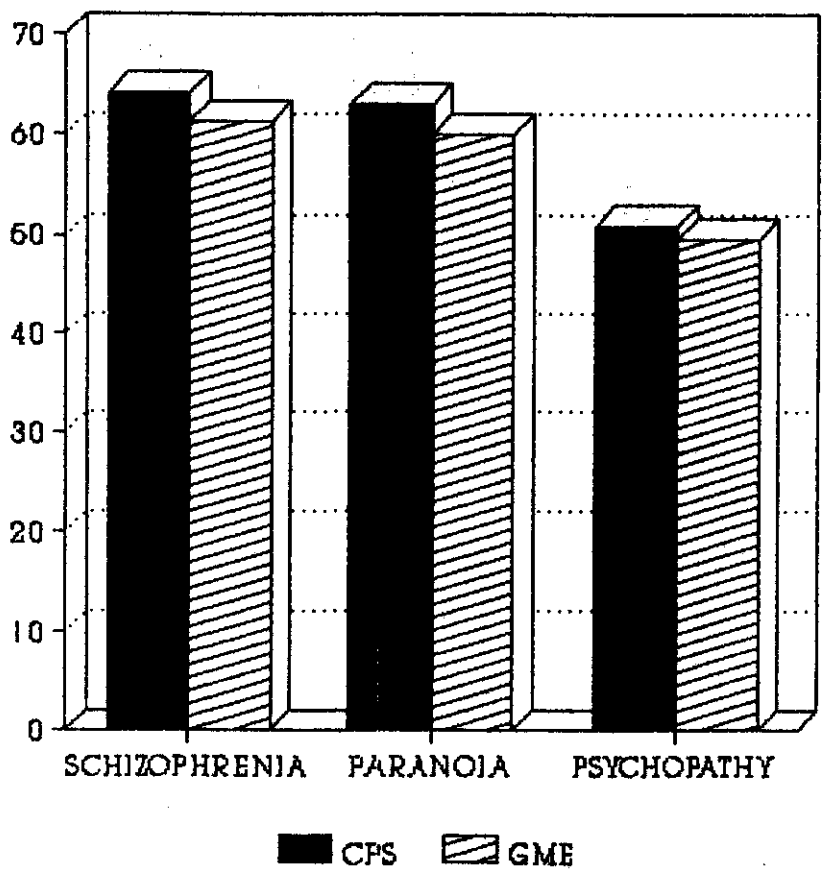
Graph No. (5)

WAIS END RESULS OF CPS AND GME GROUPS



Graph No.(6)

SOME MMPI RESULS OF CPS AND GME GROUPS



Graph No. (8)

Fig. (1): CT scan of a male patient, 31 years old, with CPS, shows right temporoparietal encephalomalacia

Fig. (2): CT scan of a male patient, 41 years old, with CPS, shows asymmetry of both lateral ventricles.

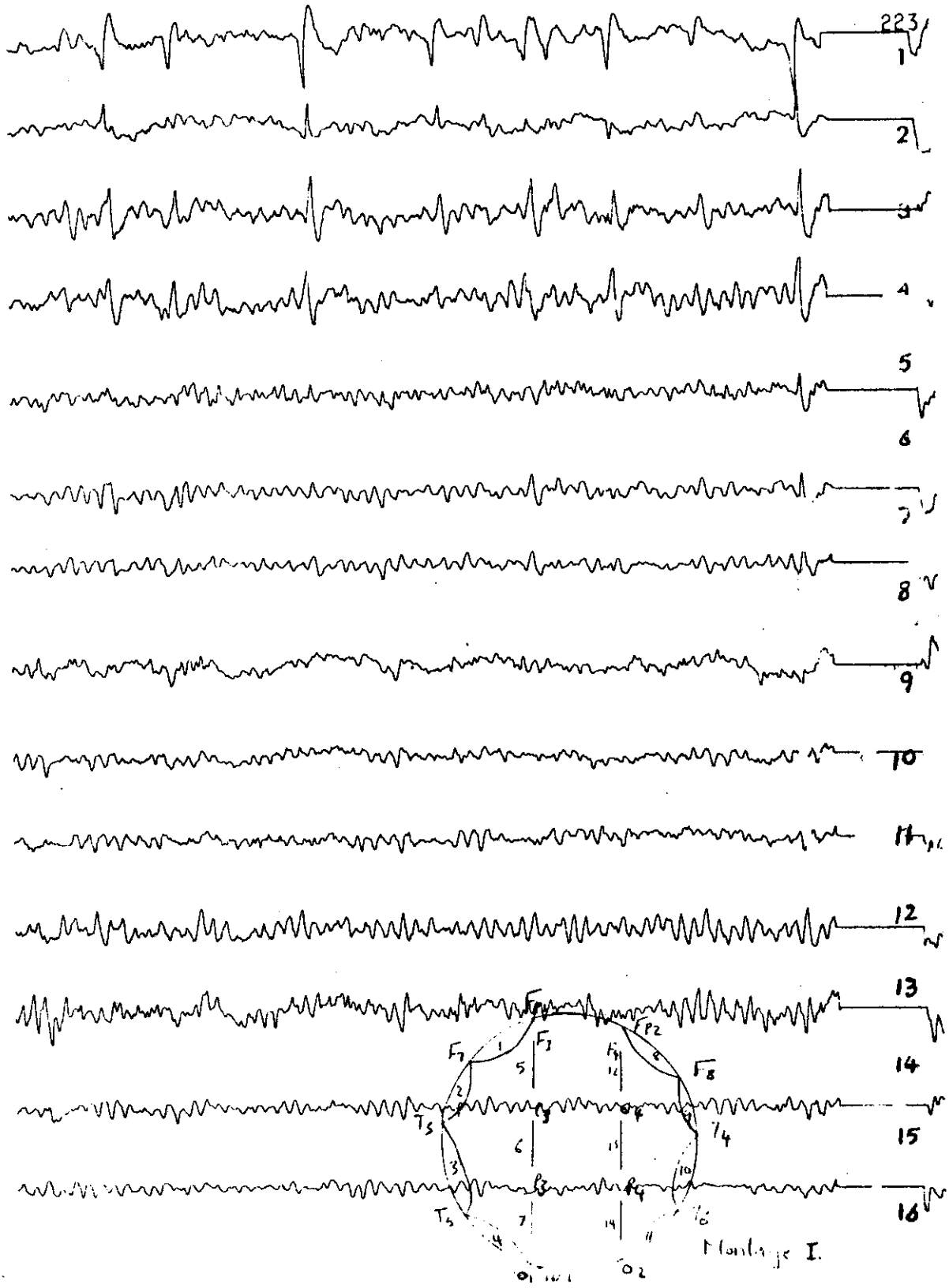


Fig. (3): An interictal EEG of a case with CPS shows left frontotemporal spikes and sharpes waves.

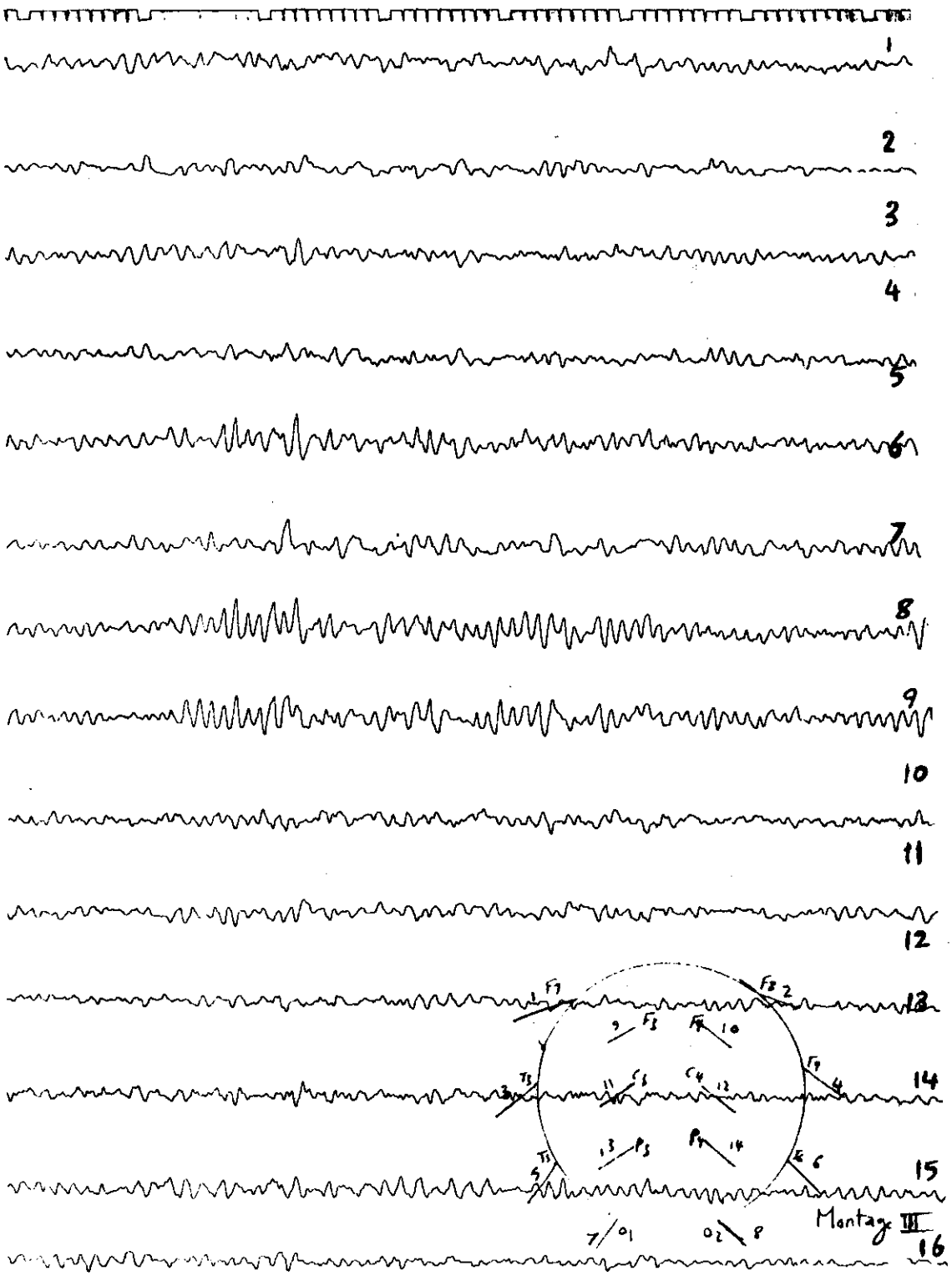


Fig. (4): An interictal EEG of a case with CPS shows left temporal sharp waves.

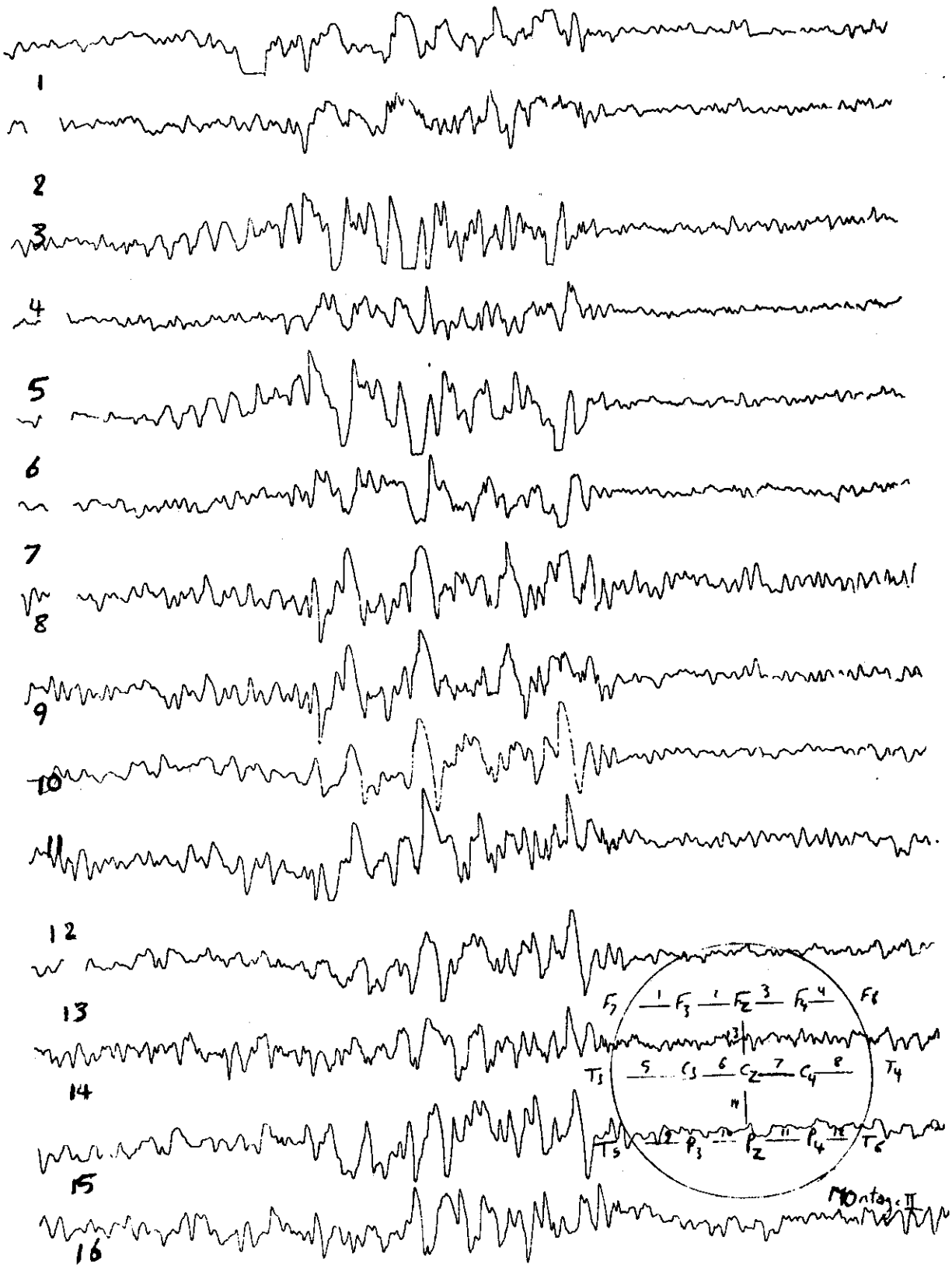


Fig. (5): An interictal EEG of a case with primary GME shows bilateral and synchronous paroxysmal discharge of spike and slow wave complexes.