

الخصائص الإكلينيكية للحالات المترددة على قسم استقبال الأمراض النفسية في مستشفى جامعة عين شمس (نتائج أولية لدراسة وبائية)

أجرى هذا البحث لدراسة الخصائص الإكلينيكية للحالات التي تتردد على قسم استقبال الأمراض النفسية بمستشفى جامعة عين شمس في الفترة ما بين فبراير ويوليو سنة ١٩٩٢ حيث تمت دراسة الحالات المترددة على قسم الإستقبال في الأيام العشرة الأولى من كل شهر خلال هذه الفترة. والهدف من هذه الدراسة هو القاء مزيد من الضوء على العوامل التي تؤثر على اتخاذ القرار في قسم الاستقبال.

ولقد وجد أن أكثر الأعراض شيوعاً في هذه الحالات هي اضطراب السلوك خاصة في صورة الهياج أو الميول العدوانية. وكانت أكثر التشخيصات المستخدمة هي الفصام، الاضطرابات التحولية، سوء استخدام العقاقير والاضطرابات الوجدانية الاكتئابية.

ولقد لوحظ أن قرار إدخال المرضى المستشفى يعتمد أساساً على التشخيص الإكلينيكي وعلى وجود عنف في الفترة القريبة وكانت نسبة الذكور أكثر من الإناث في الحالات التي تم حجزها بالمستشفى وأيضاً أصغر في العمر من الإناث.

وكانت أكثر العوامل التي تزيد من معدل حجز مرضى الاستقبال بالمستشفى هي وجود تاريخ سابق للاضطراب النفسي أو الحجز بالمستشفى مع عدم توافر طبيب نفسي أكثر خبرة مع طبيب الاستقبال.

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Migraine in Assiut

A clinical and electroencephalographic study

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Abstract

The current study was carried out on 100 migrainous patients of different ages and sex being selected from the neuro OPD, Assiut University Hospital, with the aim of evaluating some clinical aspects and study the EEG patterns of those patients being a sector of Upper Egyptian migrainers.

The study included 87 patients with common migraine and 13 patients with classic migraine with the differentiation being done according to the Headache Classification Committee of the International Headache Society (1988). The clinical results showed predominance of females (73%) with the commonest age of onset being between 10 to 20 years.

Some important aspects which help in differentiating migraine from other types of headache were discussed including: headache characters, associated clinical symptoms, different precipitating factors and recovery phase phenomena. EEG was found to be abnormal in 59% of patients. The abnormalities encountered were varied including: mild to moderate diffuse theta slowing, generalized bursts of theta and sharp waves seen under the effect of hyperventilation and focal sharp waves mainly in the occipital area, sometimes associated with focal slowing.

Correlation between EEG results and some clinical aspects including type of migraine, age, sex, duration and frequency of the attacks failed to give any significant results. Although the encountered abnormalities are not specific and could be shared by other dysrhythmic syndromes, however, they can still help in differentiating migraine from other types of headache especially the high reactivity of patients to hyperventilation and the presence of some epileptogenic features whether generalized or focal.

Introduction One of the most common types of vascular headache is migraine. It has been estimated that migraine is found in 8 to 12% of all the patients seen in general practice; it can be in a child of 5 years and in adults in the sixties (Ryan, 1978). It is a disease of the civilized; it is more common in women than in men, but in children before puberty; there are no sex differences (Bille, 1989).

Sillanpaa (1983) found that the migraine prevalence at the age of 7 years was 1.4% increasing to 5.3% at 15 years. In the study carried out by Walter and David (1990), they found that the highest incidence rate for migraine with aura among males occurred between 8 to 10 years of age and among females at 13 years of age. For the migraine without aura, the highest incidence rate among males occurred between 7 and 9 years and among females at age of 13 years. The classification of migraine done by the Headache Classification Committee of the International Headache Society (1988) included the following sub-types:

1. Migraine without aura;
2. Migraine with aura including:
 - a) migraine with typical aura
 - b) migraine with prolonged aura
 - c) familial hemiplegic migraine
 - d) basilar migraine

- e) migraine aura without headache
- f) migraine with acute onset aura
3. ophthalmologic migraine
4. Retinal migraine
5. Childhood periodic syndromes that may be precursors or associated with migraine including:
 - a) benign paroxysmal vertigo of childhood
 - b) alternating hemiplegia of childhood.
6. Complication of migraine including:
 - a) status migrainous
 - b) migrainous infarction
7. Migrainous disorder not fulfilling the above criteria.

The main clinical features of migraine are headache, nausea and vomiting, and in case of classic migraine, an aura. Before the attack, prodromal symptoms may occur and after the attack is over, there may be a recovery phase.

The prodromal symptoms according to Blau (1984) consist mainly of altered behavior and mood changes, food craving particularly for carbohydrate, yawning, altered bowel frequency, feeling unduly tired or inappropriately cold.

Headache is the most characteristic symptom of migraine; it lasts for a few hours to 48 hours and occasionally longer if untreated (Wilkinson, 1989). The pain usually begins on one side, but it may be bilateral,

and according to Blau (1984), a major differential point between migraine and other headaches is the concomitant alimentary disturbances like craving before the attack, nausea and vomiting during the attack and restricted food tolerance after the attack.

Wilkinson (1989) stated that 95% of the patients have nausea, 50% have vomiting and 30% diarrhea. As stated by Dalessio (1980), concomitant vasomotor changes are often conspicuous. The face is often pale and the extremities cold until improvement begins, also congestion of the face, conjunctiva and nasal mucosa may occur, often confined to the side of headache.

In cases of migraine with aura, the most common aura is visual disturbance followed by other symptoms like parathesia, hemiparesis or dysphasia (Wilkinson, 1989). Regarding the recovery phase symptom, Blau (1984) mentioned that 47 out of 50 patients continued with symptoms for about a day after the headache had disappeared. Mood and mental changes, yawning, tiredness, fluid intolerance and fluid imbalance are the most frequently encountered recovery symptoms (Blau, 1984 and Wilkinson 1989).

The effect of dietary factors on migraine has been mentioned by many authors. Egger et al. (1983) suggested that ingestion of specific foods precipitates migrainous attacks in susceptible patients and those patients would be symptom-free as long as certain foods are excluded from their diet. Blau and Diamond (1985) mentioned the food items which are most commonly cited as triggering agents in this order of frequency: chocolate, alcohol, cheese, nuts, citrus fruits, meat, coffee, fish, dairy products, onions, hot dogs, pizza, wheat products, bananas, tomatoes, apples and various vegetables. Peatfield et al. (1984) studied the prevalence of diet-induced migraine and found that 19% of about 490 patients with classic or common migraine reported that headache can be precipitated by chocolate, 18% by cheese and 11% by citrus fruits. There are some substances in the food which are suggested by the authors to be the triggering factors in precipitation of migrainous attacks like tyramine (Ryan, 1978), phenylethylamine (Hannington, 1974; Sandler et al., 1974 and McCulloch et al., 1976) and monosodium glutamate (Scopp, 1991).

EEG in Migraine According to Ryan (1978), EEG is normal in most of the migrainous patients. However, some investigators claim that EEG abnormalities are found in the headache free phase. Scollo-Levizzari (1975) stated that migraine may be called dysrhythmic and that the EEG findings are helpful in excluding organic brain lesions or true epilepsy. Borolin (1969)

said that about 1/3 of migrainous patients have an abnormal EEG, but only 4% of those patients have an EEG of an epileptic type. Weil (1962) pointed out that between migrainous attacks, pronounced EEG activation during hyperventilation is the most reliable sign of dysrhythmic migraine, and according to him the major types of resting EEG patterns between attacks are:

1. paroxysmal theta and delta patterns, usually with an amplitude of 50 to 200 uv;
2. high voltage spindles of 100 to 150 uv, occasionally with slow spikes interpolated.

Smyth and Winter (1964) found nearly half of 202 migraine patients had abnormal EEG, mostly in the form of increased theta activity. This was related to the length of history and the severity of the headache.

Towle (1965) found that the main difference noted in migrainous patients in comparison with normal control was the greater prominence of the EEG hyperventilation response. Green et al. (1971) found that abnormal EEG findings such as 14 and 6/second +ve spike pattern may be present in migraine in the absence of epilepsy.

Terzano et al. (1981) found that in 2.2% of 450 migrainous patients, spikes or spike waves occurred in patients not known to have epilepsy.

Also Simon et al. (1982) described various EEG abnormalities in migraine in the form of generalized spikes, spike and slow waves and focal slow waves or spikes.

In the light of all previous clinical and EEG data, the current study was designed to evaluate some of the clinical features of migraine in this locality and also to study the EEG pattern of those patients..

Subjects and Methods The study was carried out on one hundred migrainous patients of different ages and sex being selected from the attendants of the Neuro OPD, Assiut University Hospital. All patients fulfilled the clinical criteria for migraine, whether common or classic, as defined by the Headache Classification Committee of the International Headache Society:

1. Migraine without aura (common migraine) diagnostic criteria:
 - a) headache attack lasting 4 to 72 hours (untreated or unsuccessfully treated);
 - b) headache has at least two of the following characteristics: unilateral location- pulsating quality- moderate or severe intensity aggravation by walking stairs or similar routine physical activity;
 - c) during the headache, at least one of the following:
 - i nausea or vomiting;
 - ii photophobia and phonophobia;

- d) at least 5 attacks fulfilling a and c;
- e) the history gives no suggestion of an organic disorder and there are no abnormal physical signs on examination.

2. Migraine with aura (classic migraine), diagnostic criteria: at least 3 of the following 4 characteristics:
 - a) one or more fully reversible aura symptoms indicating focal cortical and/or brain stem dysfunction;
 - b) at least one aura symptom develops gradually over more than 4 minutes or 2 more symptoms occur in succession;
 - c) no aura symptoms last more than 60 minutes. If more than one aura symptom is present, accepted duration is proportionally increased;
 - d) i. headache follows aura with a free interval or less than 60 minutes (it may also begin before or simultaneously with the aura);
 - ii. at least 2 attacks fulfilling a;
 - iii. the history gives no suggestion of an organic disorder and there are no abnormal physical signs on examination.

The patients included in the study were subjected to a clinical sheet for migraine concentrating on the following items:

- 1 the precipitating factors (menstruation, sleep, travelling, lights, sounds, smells, allergy, hunger, delayed meals, exercises, pain in head and neck areas and diet);
- 2 prodromal symptoms (thirst, hunger, irritability, depression, elation, yawning, fluid retention);
- 3 aura symptoms (visual as flashes of light, scotoma, star-shaped figures, sensory as hemihyposthesia or paraesthesia, motor as hemiparesis, speech as dysphasia);
- 4 characters of the headache (onset, frequency, duration, site, laterality);
- 5 associated symptoms (nausea, vomiting, dizziness, sweating, diarrhea, photophobia, phonophobia, nose running or stuffiness, others,...);
- 6 symptoms of recovery phase (tiredness, diuresis, mood changes, cognitive dysfunction, limited food tolerance, yawning).

Also, each patient was subjected to an electroencephalographic recording during the headache-free phase using 10 channels Alvar machine. Saline electrodes were applied through the 10-20 international placement system with the calibration always done at 50 micro volt/division and paper speed kept at 30 min./second. Provocation through hyperventilation and

photoc stimulation was carried out as a routine for every patient.

Results Total number of the patients seen were 100, 87 of them (87%) had common migraine while 13 were suffering from classic migraine.

Females were predominantly more affected (73 females and 27 males); however, the difference was not statistically significant.

Table (1): Sex Distribution of Migraine

	Male		Female		Total cases
	No.	%	No.	%	
Migraine without aura	24	28%	63	72%	87
Migraine with aura	3	23%	10	77%	13
Total	27	27%	73	73%	100

$X_2 = 0.12, P > 0.05$, not significant.

Table (2): Age of patient at the onset of migraine

	10- < 20	20- < 30	30- < 40	40+	Total cases
Migraine without aura	34 39%	33 38%	15 17%	5 6%	87
Migraine with aura	9 69%	-	3 23%	1 8%	13
Total	43 (43%)	33 (33%)	18 (18%)	6 (6%)	100

$X_2 = 7.61, P > 0.05$, not significant.

Table (1) shows the sex distribution among the 2 types of headache; again the sex difference among both groups was not significant.

Age at the onset of the attacks was also studied (Table 2) with the commonest age of affection seen being between 10 to 20 years, while the least affection occurred after the age of 40. Regarding occupation and residence, a correlation was carried out between these 2 factors and the incidence of migraine with no statistically significant results could be obtained.

Table (3) shows the relationship between the different precipitating factors and migraine. 32 of the female patients (43%) had their attacks precipitated by menstruation. Sleep precipitates the attacks in 41% of the patients, exposure to light in 44%, sounds in 36%, hunger or delayed meals in 39%. Cheese precipitates the attack in 6% of patients, allergy to certain food in 3%, travelling by cars in 20% and travelling by train in 4%.

Table (3): Relationship between various precipitating factors and migraine.

Precipitating factors	Migraine without aura	Migraine with aura	Total cases	χ^2	significance
Menstruation	22 (35%)	1 (10%)	23 (33%)	1.11	N.S.
Sleep	35 (40%)	6 (44%)	41 (41%)	0.01	N.S.
- too much	22 (25%)	3 (23%)	25 (25%)		
- too little	26 (30%)	6 (44%)	32 (32%)		
Travelling	20 (23%)	4 (31%)	24 (24%)	0.07	N.S.
- Cars	17 (20%)	3 (23%)	20 (20%)		
- Trains	3 (2%)	1 (8%)	4 (4%)		
Environmental stimuli	52 (60%)	8 (62%)	60 (60%)	0.03	N.S.
- Light	39 (45%)	5 (38%)	44 (44%)	0.02	
- Flash	31 (36%)	5 (38%)	36 (36%)		
- Reversal	9 (10%)	2 (15%)	11 (11%)		
Sounds					
- Noises	32 (37%)	4 (31%)	36 (36%)	0.01	N.S.
Smells					
- Odours	2 (2%)	1 (8%)	3 (3%)	0.04	N.S.
Local pain in the head and neck	29 (33%)	4 (31%)	33 (33%)	0.02	N.S.
Exercise					
- Mild	69 (79%)	10 (77%)	79 (79%)	0.03	N.S.
- Moderate	8 (13%)	1 (8%)	9 (9%)		
- Severe	69 (79%)	10 (77%)	79 (79%)		
Hunger for delayed meals	3 (38%)	6 (6%)	39 (39%)	0.07	N.S.
Alcohol	-	-	-	-	N.S.
Diet					
- Cheese	5 (9%)	1 (8%)	6 (6%)	0.12	N.S.
- Chocolate	-	-	-	-	
- Monosodium glutamate	-	-	-	-	
Allergy	3 (3%)	-	3 (3%)	0.04	N.S.
Allergy to certain foods, odours					
Associated allergic disease which may precipitate onset of migraine attack		1 (8%)	1 (1%)	1.12	N.S.

Table (4): Effect of duration of travelling on precipitation of migraine attack.

Duration of travelling	Migraine without aura		Migraine with aura		Total cases
	No	%	No	%	
> 5 hrs.	16	80%	2	50%	18 (75%)
3-5 hrs.	2	10%	-	-	2 (8%)
< 3hrs.	2	10%	2	50%	4 (17%)
Total cases	20	83%	4	17%	24 (100%)

$\chi^2 = 4, P > 0.05$, not significant

Table (4). shows the effect of duration of travelling on the attacks. As seen from the table, duration of travelling >5 hours precipitate the attacks in 75% while if <3 hours precipitate the attacks in 17% only. That difference was not statistically significant.

Table (5): Characters of headache in common and classic migraineurs

	Migraine without aura	Migraine with aura	Total cases	χ^2	significance
Most often frequency of headache				7.86	N.S.
- 2-4 months	23 (26%)	8 (62%)	31 (31%)		
- up to 1 month	34 (39%)	3 (23%)	37 (37%)		
- twice / month	29 (33%)	2 (15%)	31 (31%)		
- twice / week	1 (1%)	-	1 (1%)		
- daily	-	-	-		
Duration of headache				0.65	N.S.
< 12hrs.	46 (53%)	9 (69%)	55 (55%)		
> 12hrs.	41 (43%)	4 (31%)	45 (45%)		
Site of Headache	7	1		0	N.S.
- Temporal	87 (100%)	13 (100%)	100 (100%)	0.74	N.S.
- Frontal	80 (92%)	11 (85%)	91 (91%)	0.14	N.S.
- Orbital	74 (86%)	11 (85%)	85 (85%)	-	N.S.
- Facial	-	-	-	0.23	N.S.
- Occipital	6 (7%)	1 (8%)	7 (7%)	0.23	N.S.
- More than one site	80 (92%)	13 (100%)	93 (93%)		
Laterality of headache				1.27	N.S.
- Unilateral	64 (74%)	12 (92%)	76 (76%)		
- Bilateral	23 (26%)	1 (8%)	24 (24%)		

Table (5) shows some of the characters of the headache in common and classic migraine. Headache was strictly unilateral in 76% of patients and the common site of the headache was the temporal area (100% of patients) followed by the frontal and orbital regions (91% and 85% respectively).

Table (6): Associated symptoms with migraine attacks

	Migraine without aura	Migraine with aura	Total cases	χ^2	significance
Nausea	76 (87%)	12 (92%)	88 (88%)	0.01	N.S
Vomiting	43 (49%)	6 (46%)	49 (49%)	0.01	N.S
Diarrhea	14 (16%)	2 (15%)	16 (16%)	0.12	N.S
Faintness	28 (32%)	6 (46%)	34 (34%)	0.46	N.S
Confusion	-	-	-	-	-
Dizziness	24 (27%)	6 (46%)	30 (30%)	1.08	N.S
Sweating	51 (59%)	5 (38%)	56 (56%)	1.14	N.S
Cold hands or feet	35 (40%)	7 (54%)	42 (42%)	0.39	N.S
Facial flushing	57 (66%)	12 (92%)	69 (69%)	2.65	N.S
Facial paralysis	-	-	-	-	-
Photophobia	80 (92%)	11 (85%)	91 (91%)	0.12	N.S
Phonophobia	78 (90%)	10 (77%)	88 (88%)	0.74	N.S
Scalp tenderness	87 (100%)	13 (100%)	100 (100%)	1.00	N.S
Eye (s) watering	68 (78%)	13 (100%)	81 (81%)	2.23	N.S
Ophthalmoplegia	-	-	-	-	-
Nose stuffiness or running	36 (41%)	7 (54%)	43 (43%)	0.03	N.S
Temporal throbbing	87 (100%)	13 (100%)	100 (100%)	0.00	N.S

Table (6) shows the most common associated symptoms. Temporal throbbing was seen in 100%, photophobia 91%, phonophobia in 88%, while facial flushing (92%), eye watering (100%), cold peripheries (54%) were more frequently encountered in migraine with aura in comparison to migraine without aura which represents 66%, 78%, 40% for each group respectively.

Table (7): Recovery phase manifestations of migraine

	Migraine without aura	Migraine with aura	Total cases	χ^2	significance
Tiredness	79 (91%)	12 (92%)	91 (91%)	0.03	N.S.
Yawning	7 (8%)	2 (15%)	9 (9%)	0.12	N.S.
Limited food tolerance	52 (60%)	9 (69%)	61 (61%)	0.12	N.S.
Diuresis	13 (15%)	1 (8%)	14 (14%)	0.08	N.S.
Mood changes	77 (89%)	10 (77%)	87 (87%)	0.51	N.S.
- Depressed mood	49 (56%)	9 (69%)	52 (52%)	0.33	N.S.
- Irritability	57 (66%)	7 (54%)	64 (64%)	0.26	N.S.
Cognitive dysfunction	-	-	-	-	-
- Impaired concentration	39 (45%)	6 (46%)	45 (45%)	0.04	N.S.

Table (7) shows the recovery phase manifestation. Tiredness represents the most common complication (91%), followed by mood changes (87%) then limited food tolerance (62%).

Table (8): EEG changes in migrainous patients

EEG findings	Migraine without aura		Migraine with aura		Total cases
	No	%	No	%	
Normal	38	44%	3	23%	41 (41%)
Abnormal	49	57%	10	77%	59 (59%)
Slowing (minimal to mild theta slowing)	21	24%	2	15%	23 (23%)
Generalized sharp waves \pm slowing	15	17%	5	38%	20 (20%)
Focal sharp waves \pm slowing	13	15%	3	23%	16 (16%)

$\chi^2 = 1.22$, not significant.

EEG results EEG was found to be normal in 41 patients (41%), while abnormal recording was encountered in 59 patients (59%). The abnormalities seen were as follows: (1) mild to moderate diffuse theta showing mostly in the range of 5 to 7 cycles/second (23 cases, i.e. 23%); (2) generalized bursts of either high voltage theta or sharp waves, that were seen only under the provocative effect of hyperventilation (20 patients); (3) focal sharp waves that were seen mainly in the occipital area and increased remarkably under the effect of hyperventilation (16 patients). These focal sharp waves were accompanied by focal slowing in 4 patients. EEG changes were correlated to the type of migraine as shown in Table (8).

As seen from the table, the percentage of abnormal tracing was more in migraine with aura (77% versus 57%); however, this difference is not statistically significant. Also, other correlations between EEG results on one hand and age, sex, duration and frequency of the attacks on the other hand were made with no statistically significant results being obtained.

Discussion No previous studies could be traced discussing the clinical as well as the electroencephalographic patterns of the Upper Egyptian migraineurs. The current study gives some idea about these 2 aspects; however, the number of patients with classic migraine (13 cases) is small for making good statistical figures. Regarding the age as seen in Table (2), no patients below 10 years were encountered which could be explained by the low incidence (1%) of migraine in school children as reported by Lance (1978). The incidence was high (43%) between 10 to 20 years

which agrees with the reports of Sillanpaa (1983), Walter and David (1990). Also, our study showed predominance of females (73%), a finding which is supported by the reports of Ryan (1978) and Bille (1989). Also, the non-significant difference in sex incidence of common and classic migraine comes in accordance with reports of Bille (1989).

Regarding the precipitating factors, the current study showed 32% of female patients had their attacks precipitated by menstrual cycles. Eldelson (1985) recorded that approximately 60% of women with migraine relate the periodicity of their headaches to their menstrual cycles and 30% have regularly an attack at each menstruation.

Also, sleep was found to precipitate the attacks in 41% of patients, according to Blau (1984); too much or too little sleep provokes headache in 5% of normal population and in a proportion of migrainous patients.

Also he stated that travelling provokes migraine by stimulating the nervous system through eyes and labyrinth. In our study, travelling by car precipitates attacks (20%) more frequently than travelling by train (4%).

Duration of travelling was also found to be an important factor to be considered with no significant difference that could be obtained between both types of headache; however, no comparable data could be obtained through reviewing the literature in this aspect.

Effect of environmental factors (namely light and sounds) are well-known clinical phenomena and according to Blau (1984), light is a more common precipitant than others, a finding which correlate well with our results.

Among the various precipitating factors, cheese was found to precipitate the attacks in 6% of patients, a ratio lies in the range mentioned by Blau and Diamond (1985). As suggested by Scott et al. (1972) and Blau (1984), the effect of cheese is due to the presence of tyramine which activates blood vessels.

The current study showed that the headache lasts from a few hours to about 48 hours and the attack occurred once (37%) or twice (31%) a month and rarely (3%) twice a week.

This is in agreement with Wilkinson (1989) who said that migraine attacks may occur once or twice a month, and rarely occur more than twice a week. According to the literature findings, 95% of migrainous patients have

nausea, 50% develop vomiting while 20% suffer from diarrhea (Wilkinson, 1989). Our results as depicted in Table (6) are concordant with the literature data.

According to Blau (1984), a major differential element between migraine and other headaches is the concomitant alimentary disturbances like nausea and vomiting during the attack and restricted food tolerance following the headache.

Hence, the conclusion of Morley and Levine (1983) that the integration of the impulses causing appetite-regulation taking place in the hypothalamus is rather relevant. In our study, a percentage of patients suffered from cold hands or feet (42%) and facial flushing (69%). Again this could be explained by a disturbed hypothalamic function and according to Morley and Levine (1983), impaired temperature control is frequently seen in hypothalamic damaged animals.

EEG findings Correlating the EEG data of the current study to what has been mentioned before in this aspect, the following observations could be made:

1 The current study showed the abnormal EEG among the studied migrainous group as 59%. This shows some similarity to the figures obtained from the literature, 33-70% and 22-91% (Jay, 1982) and 25-70% (Bruyn, 1986);

2 The high reactivity of the migrainous patients to hyperventilation, as reported in our results, seems to be a specific finding in this type of headache, and it has been mentioned before by some authors (Weil, 1962, and Toube, 1965);

3 The occurrence of either generalized spikes or focal sharp waves as observed in this study, has been also reported by Terzano et al. (1981) and Simon et al. (1982). However, the current results showed high figure of focal sharp waves (16%) if compared to the low figure (2.2%) that was obtained by Terzano et al. (1981).

4 The presence of diffuse theta slowing (23%) has been also reported by Smyth and Winter (1964).

Considering the statistical correlations of the EEG findings to the various clinical items (as mentioned in the results), the literature on this subject is not too rich. However, Smyth and Winter (1964) reported increased abnormal EEG findings in relation to the severity of the attacks, a point which could not be proved in our results. We might reach a conclusion that abnormalities in the interictal EEG shows a mid-range of variations and no specific EEG findings could be linked to the migrainous patients whether having classic or common type of

headache. In addition to this, these abnormalities may be shown by many other dysrhythmic syndromes.

Also, there are two other points of importance which should be mentioned: (1) the high percentage of abnormal EEG in migrainous patients if compared to the normal population, and (2) the occurrence of some epileptogenic features either focal or generalized which increase significantly under hyperventilation

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ADDRESS OF CORRESPONDENCE

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دراسة اكلينيكية وفسيولوجية باستخدام رسم المخ الكهربائي للصداع النصفي في اسيوط

أجريت هذه الدراسة على ١٠٠ مريض بالصداع النصفي تم اختيارهم من المرضى المترددين على العيادة الخارجية للأعصاب بالمستشفى الجامعي باسيوط. وكان الغرض الرئيسى لهذه الدراسة هو بيان بعض الصفات الاكلينيكية للصداع النصفي في هذه المنطقة من صعيد مصر، وأيضاً إلقاء الضوء على نمط التغيرات التى تحدث فى رسم المخ الكهربائي. وقد تم تصنيف وتشخيص هؤلاء المرضى باتباع الشروط التشخيصية التى وضعتها اللجنة الخاصة بتقسيم الصداع سنة ١٩٨٨ والمنبثقة عن جمعية الصداع الدولية. ولكل مريض احتوته الدراسة تم إجراء مناظرة اكلينيكية وايضاً عمل رسم مخ كهربائي فى الفتره التى تخلو من الصداع. وقد أوضحت الدراسة أن ٨٧٪ من هؤلاء المرضى كانوا يعانون من الصداع النصفي العام و١٣٪ من الصداع التقليدي. وكانت نسبة الإناث ٧٣٪. وقد تبين أن السن من ١٠ إلى ٢٠ سنة هو الذى يشهد أعلى معدل لبداية الشكوى من الصداع. وتناولت الدراسة بعض مسببات حدوث النوبه مثل الدورة الشهرية-الافراط أو قلة النوم- التعرض للمؤثرات البيئية مثل الضوء والضوضاء والروائح النفاذه- تناول أكالات معينة - السفر وخاصة تأثير المدة التى يستغرقها وقت السفر.

وتناولت النتائج أيضاً بعض الملامح الخاصة للصداع النصفي والأعراض الأخرى المصاحبة للنوبه والتوءكات التى تعقبها والتي تساعد فى تفرقة الصداع النصفي عن غيره من أنواع الصداع.

أما بالنسبة لرسم المخ فقد كانت نتائجه غير طبيعية فى ٥٩٪ من الحالات. وهذه التغيرات غير الطبيعية تنوعت ما بين اختلافات عامة أو بؤرية ظهرت بصورة أوضح تحت تأثير فرط التنفس. ولم يظهر رسم المخ اختلافاً بين أنواع الصداع (العام والتقليدي). ويربط هذه التغيرات بالنواحى الاكلينيكية الأخرى لم تظهر نتائج ذات دلالة احصائية. وبصفه عامه فإن نمط رسم المخ الكهربائي لمريض الصداع النصفي متنوع، ولكن يمكن الاستعانة به فى المجال التشخيصي فى التفرقة بين الصداع النصفي وباقي أنواع الصداع الأخرى.