PROFILE OF PATIENTS WITH HEADACHE IN BASRAH

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ABSTRACT

This is a cross sectional study, carried out to study the profile of patients with headache, 300 patients attending the out-patient clinic in Al-Sadder Teaching Hospital in Basrah for the period 1st January-31st December 2003, were interviewed & examined by the researcher by using special question form. Primary headache found in 41.3% (tension type headache 25.7% and migraine 15.7% of the total) with a higher rate among females. Tension type headache was higher among age group 20-39 years and increasing with educational state, common among professional and administrative occupations, with higher rates among females. Migraine was higher among young male and older females and there was an inverse relationship with education and was higher among unskilled workers. Nearly ¾ of primary headache patients were using medication with a higher rate among migraine patients. Secondary headache contributed to 58.7% (mainly due to hypertension, febrile illness and 4 cases were due to brain tumor). The study recommended careful history and physical examination for establishing the diagnosis, &to prescribe appropriate treatment. Cranial CT scan and MRI may be needed for assurance of the patient of the absence of structural internal cranial lesion.

INTRODUCTION

Headache is an ancient affliction, described as early as 300 BC. It is a common complaint among adults and to a lesser extent in children.[1] Approximately 70% of adult reported having experienced headache in the past years,[2] but in a population based study, it was estimated that 90% of men and 95% of women had unprovoked headache annually,[3] and only 15% seek medical help.[2,4] The variation in the prevalence between different studies in different communities, may be due difference in the definition or classification scheme utilized.[5] In the United States and West Europe the prevalence varies between 16% and 96%.[5] In Saudi Arabia (1998), it was reported that the prevalence was 12%.[6] Headache is a common disorder worldwide and its worst form can be quite incapacitating with regard to social activities and work performance.[7] The primary headache disorders, migraine and Tension Type Headache (TTH) are defined primarily on the symptom profile of individual patient.[8] The lack of standardized case definition has blocked epidemiological studies of headache and has contributed to the enormous variation in estimation of prevalence and incidence of primary headache disorders.[9] Diagnosis in clinical practice and epidemiology rests largely on the analysis of sufferer's description of the prior attack.[9] In 1988, the International Headache Society (IHS) published a classification system. American Migraine Society (AMS), a modified version of the (IHS) defines migraine as idiopathic, recurrent, unilateral throbbing headache, which could be associated with nausea, vomiting, gastrointestinal discomfort and visual symptom.[9] TTH was defined as recurrent, bilateral with tightening or pressing pain in the head or vertex,[9] may inhibit but not prohibit activity. AMS estimated the prevalence of migraine as 17.6% in women and 6% among men.[5] Regarding age & sex, AMS reported that the prevalence increases in both male & female from age 12 years until 40 years when it decreases and female to male ratio increases from menarche up to 42 years after which it declines.[1] AMS found that there is an inverse relationship between socioeconomic status and prevalence of migraine. [1] Prevalence of TTH varies from 1.3% to 65% in men & 2.7% to 86% in women[10] with a peak at age 30-39 years. Prevalence was increasing with education level reaching a peak in subjects with graduate school education.[11] To evaluate headache in cost effective manner, and to prescribe appropriate therapy, a careful history and physical examination are the most helpful procedures.[12] Knowledge of the profile of headache patients in specific community, therefore, facilitates rational utilization of health care resources in the investigation and long term management of these cases.[13] In Basrah there was no previous study performed on patients

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with headache, so this study was designed to study the profile of patients with headache.

PATIENTS AND METHODS

This is a cross-sectional study, carried out to study the profile of patients with headache attending outpatient clinic in Al-Sadder Teaching Hospital in Basrah for the period 1st Jan. 2003 to 31st Dec. 2003.A total of 300 patients were interviewed and examined by the researcher using special questionnaire designed for the purpose of the study. The researcher followed the HIS criteria in the diagnosis of TTH & migraine. The data was analyzed by the computer using Excel version 1997. Chi-square test was used as a test of significance.

RESULTS

Out of 300 patients with headache 124 patients had primary headache (41.3%), 77 patients (62.1%) had TTH & 47 patients (37.9%) had migraine. Out of 176 patients with secondary headache, 65 (36.9%) had hypertension, 32 (18.2%) had febrile illness, 4 (2.3%) had brain tumor & 75 (42.6%) had no specific cause. Regarding age, the majority of patients (64.3%) were below the age of 40 years, with the highest peak was at age 20-29 years (32.0%) followed by 30-39 years (21.3%). Regarding sex, headache was higher among females (56.0%) than males (44.0%), and the percentages were higher among all age groups (Table-1).

Table 1. ***Age & sex distribution of studied patients.***

Age (years)	Female		Male		Total	
	No.	%	No.	%	No.	%
<20	20	60.6	13	39.4	33	11.0
20-29	50	52.1	46	47.9	96	32.0
30-39	37	57.8	27	42.2	64	21.3
40-49	23	56.1	18	43.9	41	13.7
50-59	20	55.0	16	44.4	36	12.0
60+	18	56.3	14	43.7	32	10.7
Total	168	56.0	132	44.0	300	100.0

Regarding education, it is evident that there is an inverse relationship between migraine and education where the percentage is decreasing as education increase and the reverse was true for TTH and the difference was statistically not significant (P>0. 05) (Table-2).

Table 2. ***Distribution of patients according to education.***

Education	Migraine		TTH		Total	
	No.	%	No.	%	No.	%
Illiterate & just literate	12	25.5	9	11.7	21	16.9
Primary	11	23.4	10	13.0	21	16.9
Intermediate	9	19.2	23	29.9	32	25.8
Secondary	6	12.8	17	22.1	23	18.5
High Education	9	19.2	18	23.4	27	21.9

Total	47	100.0	77	100.0	124	100.0

Chi-square = 8.077 D.F = 4 P>0.05

(Table-3) shows, age & sex distribution of patients with TTH, it shows that the majority of TTH patients were below 40 years & the percentages were higher among females than males. The percentages were higher among males than females after the age of 40 years. The difference was statistically not significant (P>0.05).

Table 3. **Age** ***& sex distribution of TTH.***

Age (years)	Female		Male		Total	
	No.	%	No.	%	No.	%
<20	10	21.3	6	20.0	16	20.8
20-39	22	46.8	12	40.0	34	44.2
40-59	9	19.2	8	26.7	17	22.0
60+	6	12.8	4	13.3	10	13.0
Total	47	100.0	30	100.0	77	100.0

Chi-square = 0.6799 D.F = 3 P>0.05

(Table-4) shows, age & sex distribution of migraine patients, it shows that the percentages were higher among males than females below 40 years of age, and the percentages were higher among females than males after the age of 40 years the difference was statistically not significant (P> 0.05).

Table 4. ***Age & sex distribution of migraine patients.***

Age (years)	Female		Male		Total	
	No.	%	No.	%	No.	%
<20	7	26.9	6	28.6	3	27.7
20-39	9	34.6	8	38.1	17	36.2
40-59	6	23.1	4	19.0	10	21.3
60+	4	15.4	3	14.3	7	14.8
Total	26	100.0	21	100.0	47	100.0

Chi-square =0.148 D.F = 3 P>0.05

(Table-5) shows, the distribution of male patient according to occupation, it is evident that TTH was higher among professional, retired & administrative (23.3%, 20.0% & 10.7%) respectively, while migraine was higher among skilled workers & unemployed (23.8%& 23.8%) respectively, while among females, it is evident that TTH was higher among working women than migraine (21.3% vs19.2%), while migraine was higher among housewives than working women (80.8% VS 78.7%)& the difference was statistically not significant (P>0.05). (Table-6)

Table 5. ***Distribution of males with primary headache according to occupation.***

Occupation	TTH		Migraine		Total	
	No.	%	No.	%	No.	%
Professional	7	23.3	3	14.3	10	19.6
Administrative	5	16.7	2	9.5	7	13.7
Skilled Worker	4	13.3	5	23.8	9	17.6
Unskilled Worker	3	10.0	3	14.3	6	11.7
Unemployed	5	16.7	5	23.8	10	19.6
Retired	6	20.0	3	14.3	9	17.6
Total	**30**	**100.0**	**21**	**100.0**	51	100.0

Chi-square = 2.486 D.F = 5 P>0.05

Table 6. ***Distribution of females with primary headache according to occupation.***

Occupation	TTH		Migraine		Total	
	No.	%	No.	%	No.	%
Housewives	37	78.7	21	80.8	58	79.5
Working	10	21.3	5	19.2	15	20.5
Total	47	100.0	26	100.0	73	100.0

Chi-square = 0.049 D.F = 1 P>0.05

Nearly ¾ of primary headache patients were using medication (71.0%) with a higher rate among migraine than TTH (74.5% &68.8%) respectively & the difference was statistically not significant (P>0.05). (Table-7).

Table 7. ***Use of medication in primary headache.***

Medication	TTH		Migraine		Total	
	No.	%	No.	%	No.	%
Yes	53	68.8	35	74.5	88	71.0
No	24	31.2	12	25.5	36	29.0
Total	77	100.0	47	100.0	124	100.0

Chi-square = 0.045 D.F = 1 P>0.05

DISCUSSION

Although studied for centuries, the epidemiology of primary headache disorders has been clarified only in the last 2 decades. Understanding the epidemiology of headache patients is important for both clinical and public health perspectives.[1] Epidemiological data describe the scope & distribution of various headache sufferers, whether or not they consult doctors, can be used to assess health care delivery and to devise interventions to improve

diagnosis & treatment.[1] Headache is one of the most common symptoms encountered in general medical practices, i.e. outpatient clinics, private clinic, or accident and emergency departments. The organization of headache care system and availability of resources in various communities influence clinical practice.[13] In this study, primary headache found in (41.3%) of studied patients, but this rate does not reflect the prevalence of headache in the community, but it may reflect the severe cases, they may be more cases in the community (ice-berg phenomenon). [14] TTH constituted (25.4%) of the total headache patients compared to (15.7%) for migraine with a female predominance for both types, which is similar to other studies, which showed higher prevalence among females at younger age.[3,13] Migraine was high among younger males, which is comparable to other studies which showed higher prevalence of migraine among males prior to puberty and increasing in girls as adolescent approaches, [1,4] and continue to rise and the age after 40 years where it declines. This decline is attributed to the decline in the level of estrogen as menopause approaches. [4] The study showed an inverse relation between education & migraine which is similar to another study,[5] this may be explained by that the disabling migraine may interfere with educational function of patients[5] while TTH was higher among young age and higher education which is comparable to other studies, this could be due to the stress of life events with young age may be factor in the pathogenesis of TTH.[11,13] The majority of male patients TTH were (professional, administrative or worker), and 21.3% of TTH & 19.2% of migraine female patients were working women, and this may account for many work days lost than does migraine.[15] All forms of headache patients are subdivided into those associated with medication overuse (for at least one month) & those without. In this study nearly ¾ of patients were using medication which is higher than other studies which stated that, whatever the predisposing type of headache at least half of patients overuse or abuse medications designed to treat acute episodes of headache.[16] When they use drugs daily tend to cause rebound of the headache mechanism leading to vicious cycle of increasing medication use, increasing headache frequency and eventually daily headaches.[16] The impact of headache disorders on individuals & society is large & provides an important target for public health interventions. Despite the widespread disability produced by headache, the disorder is still underdiagnosed & undertreated, so it is recommended that a careful history and physical examination may be more helpful in establishing the diagnosis and more cost effective & further epidemiological researches may be useful to screen for headache in primary care setting. Cranial CT-scan and MRI were often needed to reassure the patient of the absence of an ominous structural intracrainial lesion. [13,17]

REFERENCES

1. **Lipton RB, Stewart WS. Prevalence and impact of migraine. Neuralgic Clinics Advances in headache 1997; 15(1): 1-13.**
2. **Kumar KL, Cooney GT. Headache. Medical Clinic North America 1995; 79: 261-286.**
3. **Linet MS, et al. An epidemiologic study of headaches among adolescents and young adults. JAMA 1998; 261: 2211-2216.**
4. **Rasmussen BK, et al. Epidemiology of headache in general population: A prevalence study. Journal of Clinical epidemiology 1991; 44: 1147-1157.**
5. **Stewart WF, Schechter A, Rassmussen BK. Migraine prevalence: A review of population- based study. Neurology 1999; 44(4): 17-23.**
6. **Al-Rajeh SB, Ismail H, et al. A community survey of neurological disorders in Saudia Arabia. Neuroepidemiology 1993; 12: 164-178.**
7. **Linet MS, Stewart WF. Migraine headache: Epidemiological Perspectives Epidemiological Review 1984; 6: 107-139.**
8. **Lipton RB. et al. Migraine: Identifying and removing barriers to care. Neurology 1994; 44: 56-62.**
9. **International Headache Society: Classification & diagnostic criteria for headache disorders. Cephalgia 1988; 8: 1-9.**
10. **Matrga WBP, Mteze IBH, Rwice HT. Headache in a non-clinical population in Dar-Al-Salam, Tanzania. Headache 1995; 35: 273-276.**
11. **Schwarts BS, et al. Epidemiology of tension type headache. JAMA 1998; 279: 381-383.**
12. **Cummings RG, Kelsey JL, Nevitt MC. Methodological issues in the study of frequent and recurrent health problems. Annals Epidemiology 1990; 1: 49-56.**
13. **Louge AL. Profile of chronic headache patient in the Asir Region, Annals of Saudi Medicine 1998; 118(6): 564-568.**
14. **Epidemiolog.**
15. **Schwarts BS, et al. Epidemiology of tension type headache. JAMA 1998; 279: 381-383.**
16. **Rasmussen BK. Impact headache on sickness absence and utilization of medical services: A Danish population study. J. Epidemiol. Community Health 1992; 46: 443-446.**

17. **Mathew NT, Reuveni U, Perez F. Transformed or evaluative migraine. Headache 1987; 27: 102-106.**
18. **Hari M, Ghatashen M. Are magnetic resonance imagings or computed tomography required for tension headache. Jordan Medical Journal 1999; 33(2): 100-101.**