Original Research

A study of migraine headache spectrum in patients treated in tertiary care hospital

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ABSTRACT

Introduction: Headache is a very common symptom with multifactorial origins. They are broadly classified as primary headache, secondary headache and other headaches. **Material and Methods:** We included patients who newly presented with primary headache were identified and were subjected to a detailed history and examination to find out who among them were cases of migraine. This was carried out from October 2015 to 0ctober 2016. The diagnosis was made according to the ICHD-2 criteria (International Classification of Headache Disorders). **Results**: 437 cases of primary headache were identified within the time period of the study. Of these, 107 cases (24%) were diagnosed as migraine spectrum disorders. 72 cases were female (67%). 35 cases were male (33%). 32% of the cases belonged to the age group of 15-25 years, and 36% of cases belonged to the age group of 45-55 yrs. This shows a bimodal distribution of the disease. **Conclusion**: migraine is an important cause for primary headache in the study population of southern part of Tamil Nadu and has higher prevalence in women and among adolescents and the middle aged. Drug therapy is effective in 70% cases.

Key words: Migrane, headache.

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INTRODUCTION:
Headache is a very common symptom with multifactorial origins. They are broadly classified as primary headache, secondary headache and other headaches.
Primary headache consists of mainly four types. Migraine headache, Tension type headache, Trigeminal autonomic cephalalgias including Cluster headache and other primary headache syndromes[1]. Migraine is further classified into Migraine with Aura and Migraine without Aura. Migraine without Aura is further classified into Migraine with typical aura, Migraine with brainstem Aura, Hemiplegic migraine and Retinal migraine[2]. From all these types, migraine is considered very important because it is relatively common and it significantly affects the quality of life of its patients.
The term migraine is coined from the old Greeek word hemikranios, which translates to half head. This is because, 70% of the patients of migraine have unilateral distribution of head pain.
In a recent study, migraine was found to be the third leading cause of disability in patients under 50 years of age[3]. Migraine is more prevalent than diabetes, epilepsy and asthma combined[4]. The World Health Organisation has declared migraine to be among the most disabling medical conditions experienced worldwide.
Most of the data regarding the prevalence and types of migraine involves the population of western countries.

A descriptive study regarding the demographics and types of migraine within the Indian population are very few.

MATERIALS AND METHODS

This study was carried out from October 2015 to 0ctober 2016 at S.P.MEDICAL COLLEGE BIKANER at department of medicine. The diagnosis was made according to the ICHD-2 criteria (International Classification of Headache Disorders). They were further classified into cases of migraine with aura, migraine without aura, migraine aura without headache, complicated migraine like ophthalmoplegic migraine, hemiplegic migraine etc. The prevalence of the disease was further classified according to sex, age group, severity and many such parameters. The severity and disability was assessed by the MIDAS scoring system.

Patients who had mild, moderate and severe disability were administered migraine prophylaxis. The drugs used were Propranolol (40-240 mg/day) and Amitryptilline (12.5- 150 mg/day). The drugs were titrated gradually to minimum effective dosage or maximum tolerated dosage, over a period of 3 months. Combination therapy was used in patients who had poor response to monotherapy. The patients were followed up for 6 months. The mean MIDAS score before and after the 6 months were calculated.

RESULTS

437 cases of primary headache were identified within the time period of the study. Of these, 107 cases (24%) were diagnosed as migraine spectrum disorders. 72 cases were female (67%). 35 cases were male (33%). 32% of the cases belonged to the age group of 15-25 years, and 36% of cases belonged to the age group of 45-55 yrs. This shows a bimodal distribution of the disease. Migraine without aura was present in 77 cases (72%). Male cases were 23 and female were 54. Male to female ratio is (2:5). Total cases of Migraine without Aura were 29 cases (28%).Migraine with typical Aura was present in 26 cases (25%). Male case were 14 and female were 15. Male to female ratio is (1:1). Presence or absence of aura did not show any relationship with the age of the study population.

Three cases of hemiplegic migraine were diagnosed. Two cases were female patients and one was a male patient. Of these two patents were father and daughter and thus familial. One case was sporadic. One case of ophthalmoplegic migraine (brainstem aura) was diagnosed in a female patient.

Disability due to Migraine:

Little or No disability. MIDAS Grade 1 (0-5) : 23 cases (21%)
Mild disability. MIDAS Grade 2 (6-10): 31 cases (29%)
Moderate disability. MIDAS Grade 3 (11-20): 36 cases (34%)
Severe disability. MIDAS Grade 4 (21+): 17 cases (16%)

The disability also did not show any correlation with age or sex of the study population.

Response to treatment:

84 cases were treated with migraine prophylaxis. Of these 26 cases (30%)did not report any improvement of their symptoms. 46 cases reported reduction in frequency and/or severity of migraine attacks. Two cases could not be followed up. The mean MIDAS score of these 84 cases were 14.4. After 6 months of treatment the mean Midas score was 8.6.

DISCUSSION

From the results obtained, we can see that migraine is certainly one of the most common causes for primary headache in the study population. 24% of the patients who had primary headache were diagnosed as having migraine. Another study conducted in Ethiopia showed a higher proportion of migraine. Migraine composed of 45% of all the primary headache syndromes in this study, with tension type headache accounting to 50%[5]. In this study population, migraine comprises of 24% of the primary headache syndromes. This could be because of the higher prevalence of Tension Type Headache in this study population. Tension type headache accounted for 73% of the cases in this study. The sex distribution is different to what have been found in the studies of the western population. The male to female ratio in this study is 1:2. In the studies on the western population, the male to female ratio was 1:3. [6] This means that compared to the western population, males are proportionately more affected in the study population. Age distribution of the disease showed a bimodal distribution. That is, the disease was more common within patients of two specific age groups of 15-25yrs and 45-55yrs. The disease peaks in the adolescent and young adult age group and also in the middle age group. This correlates with the data from the western population which also shows that the peak incidence is in the fourth decade of life[7]. The western data also shows that males are higher in number in the adolescent group, when compared to the females. However this study did not show such correlation. Females outnumbered the males also in the adolescent age group.

28% of cases belonged to the migraine with aura group. 72% were migraine without aura. There were 3 cases of hemiplegic migraine and 1 case of ophthalmoplegic Migraine. Migraine with aura was equally distributed among the male and female population. However migraine without aura was much more common among females. This finding roughly correlates to the western studies in which migraine with aura was found to be one third of the total number of migraine cases.[8]71% of migraine without aura patients were females. There was no correlation between age of the patients and between

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different types of migraine. The diagnosis of hemiplegic migraine and ophthalmoplegic migraine suggests that these types are not uncommon in the general population of the study area. The disability of the patients were assessed by the MIDAS (Migraine Disability Assessment). 21% cases showed little or no disability. The rest had mild, moderate or no disability. The patients with little disability were treated symptomatically with NSAIDs during the infrequent attacks. The rest of the patients were treated with migraine prophylaxis. The drugs used were Amitryptilline (12.5 to 150mg/day) and propranolol (40-240 mg/day.) They were started in low doses and titrated according to response and tolerability. Treatment was followed up for 6 months. 30% of cases did not report any improvement in symptoms. Others reported reduction in severity and frequency of attacks. The mean MIDAS score was 14.4 before treatment and it became 8.6 after 6 months of treatment. For the 70% cases who responded to treatment, there was a 58% reduction in disability score.

When reviewed with literature, usually effective prophylactic agents reduce headache frequency in 50% of patients[9]. So there seems to be a better response to migraine prophylaxis in the study population, when compared to the information available in the literature.

CONCLUSION:

Migraine is an important cause for primary headache in the study population of southern part of Tamil Nadu and has higher prevalence in women and among adolescents and the middle aged. Drug therapy is effective in 70% cases. More extensive studies with a bigger study population and with other alternate drug regimens for the non responding cases are needed to know more about the disease and its management, in the Indian context.

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