AGGRAVATING FACTORS OF MIGRAINE AMONG THE PATIENTS ATTENDING NEURO-MEDICINE OUTPATIENT DEPARTMENT AT TWO SELECTED TERTIARY LEVEL HOSPITAL

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Abstract

A descriptive cross-sectional type of study was conducted among the migraine patients attending the Neuromedicine department of Dhaka Medical College Hospital and Bangabandhu Sheikh Mujib Medical University to find out the aggravating factors of migraine in the year of 2006. Total number of respondents was 160. Among them 70% were female. Majority of the patients (46.25%) were aged between 21-30 years. Significant number of respondents (38.12%) was housewives; followed by 28.75% were student. The main aggravating factors so far identified in this study were sleep disturbance, bright light, noise and mental or physical stress. Other aggravating factors were various types of food, oral pill, relation with menstrual cycle. Respondents also stated more than one factor. Among the female respondents 39.8% practiced different types of contraceptive methods of which majority (82.05%) used OCP.

Key words: *Aggravating factors of migraine, family history, sleep disturbance.*

Introduction

Migraine is a common neurovascular disorder characterized by attacks of severe headache and autonomic and neurological symptoms. A large percentage of headache patients are suffering from migraine.[1]

In childhood, migraine incidence is equal in boys and girls but migraine becomes three times more common in girls than in boys during adolescence.[2] Commonly starting at puberty, migraine mostly affects those aged between 35 and 45 but can trouble much younger people, including children.[3] 25% of people with migraine will have experienced their first attack before the age of 10 and over 90% will have experienced their first attack before the age of 40.[4]

Migraine has a tendency to run in families, 4 out of 5 migraine sufferers have a family history of migraine. If one patient has a history of migraine, the child has a 50% chance of developing migraine and if both parents have a history of migraine, the risk jumps to 75% .[4]

Worldwide prevalence of migraine is 10-12%, while in Bangladesh the prevalence is 18% (Hospital based study). Among them 20% are male and 80% are female and male-female ratio is 1:4 .[5]

As migraine is not a curable, but a preventable disease, so the only way to prevent its attack is to avoid the risk factors.

Migraines develop differently among individuals with a varied combination of symptoms. For this reason, migraines are often undiagnosed in the general population.

Materials and Methods:

This was a descriptive type of cross-sectional study conducted at Neuromedicine department of Dhaka Medical College Hospital (DMCH) and also at the out-patient department of Bangabandhu Sheikh Mujib Medical University (BSMMU). Study population was all the patients having migraine as diagnosed by the physician attending at the outpatient department of DMCH and BSMMU. Sample was taken purposively and final sample size was 160. A pretested semi-structured questionnaire was used as research instrument. Data were collected by face to face interview. Data were

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summarized and presented by using scientific calculator and excel program 98.

Result:

The study was carried out among 160 diagnosed migraine patients. Male female ratio was 3:7 and majority was in the age group of 21 to 30 years with mean 30.23 and the SD was 10.34 years. About 12% respondents were illiterate. Regarding occupation most frequent were housewife (38%) and students (29%). Most of the cases (61%), duration of sufferings was <5 years, very few (4%) was suffered for >25 years. More than half (54%) of the respondents had family history of migraine. Regarding aggravating factors, multiple answers were common. Sleep disturbance, bright light, noise and stress were common findings.
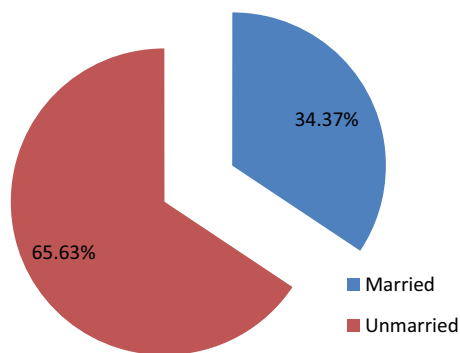
Fig.-1: *Distribution of respondents by marital status*

Table-I

Age distribution of the respondents

Age (in year)	Frequency	Percentage (%)	Statistic
<20	23	14.35	Mean = 30.23yr
21-30	74	46.26	SD= +10.34
31-40	36	22.50	
41-50	25	15.63	
>51	2	1.26	
Total	160	100	

Table-II

Family H/O migraine among the respondents

Family H/O migraine	Frequency	Percentage (%)
Present	87	54.37
Absent	73	45.63
Total	160	100

Table-III

Aggravating factors for migraine

Predisposing factors*	Frequency
Sleep disturbance	132
Bright light	118
Loud noise	107
Stress	103
Hypertension	42
Relation with food	33
OCP	32

*Multiple response

Table-IV

Relation of migraine with menstruation(n=98)

Relationship with menstruation	Frequency	Percentage (%)
Yes	32	32.65
No	66	67.35
Total	98	100
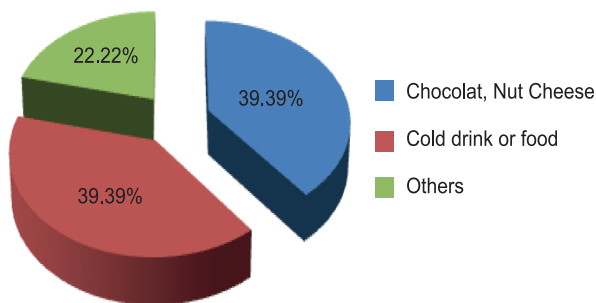
Fig.-2: *Types of food associated with migraine*

Discussion

Among them about 65% respondents were married. Of the total respondents 70% were female and the male female ratio was found about 3:7**.** According to WHO report March 2004 the prevalence rate was 2-3 times higher in women than those in men. Higher rate in women were hormonally driven .[3]

In our study most of the respondents (68.75%) found in the age group of 21-40 years. Only a few (14.35%) were in the age group of 20 years or less and 16.88% were more than 40 years of age. Other study suggests that over 90% experienced their first attack before the age of 40**.** With the increasing age attack rate usually decreases .[4]

Our study showed that highest percentage (38%) of migraineurs complained of having attack at any time, secondly 25% respondents had their pain usually occurring in the morning.

When we searched for relationship of migraine with family history, we found that 54% of the respondents had a family history of migraine. Migraine have a tendency to run in families, 4 out of 5 migraine sufferers had a family history .[4]

Considering the aggravating factors for the migraine among the respondents we found multiple responses, i.e. most of the respondents stated about having several risk factors. Majority of the respondents (132) complained about sleep disturbance. The other factors according to frequency of response were bright light, loud noise, stress, hypertension, relation with food and oral contraceptive pill.

Of the respondents who had relation with food 39.39% had problem with chocolate/nut/cheese, 39.39% had problem with various types of food like beef, tea, banana etc. and 21.22% had problem with cold drink. According to Maurice Victor certain dietary items particularly chocolate, cheese, fatty foods, oranges, tomatoes, tyramine containing food, especially wine, alcohol provoke and attack in some various persons .[6] Type of food triggering migraine may vary from other studies due to different food habit of the people of our country.

Among the female respondents, 32.65% had relation with menstruation. Among them 75% of women felt their problem during the menstrual phase, which can be marked as 'true menstrual migraine'. This finding is consistent with the text of Walter and Robert which stated that at least 25% of female migraineurs had relation menstruation. Migraine attacks occur throughout the cycle but increased in frequency and intensity at the time of menstruation. This association found up to 60% of female migraineurs. Among them true menstrual migraine is associated with up to 7% of female migraineurs. Premenstrual migraine can occur in few women .[7] In our study only 18.75% women had premenstrual migraine.

Among the 39.8% of reproductive age group of woman, 32 (82.05%) used oral contraceptive pill. Our result is also consistent with World Health Organization report, March 2004 which said oral contraceptive pills are the main precipitants of severe migraine .[3]

Conclusion:

Migraine is not only a severe painful disease but also a disabling one and people suffer from it for long duration. Majority of the migraineurs complained of several precipitating factors. We suggest to prevent the aggravating factors, building awareness among the people about migraine and its precipitating factors. These would be the best method to help thousands of migraineurs who are around us.

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