

## Clinical Evaluation of Headache Patients attended at Eye OPD in a Secondary Level Hospital in Bangladesh

Mohammad Iftexhar Hassib<sup>1</sup>, AKM Shoab<sup>2</sup>, Syed Abul Foez<sup>3</sup>,  
MAM Shakhawat Hossain Khan<sup>4</sup>, Ajoy Roy Chowdhury<sup>5</sup>

<sup>1</sup>Senior Consultant (Eye), General (Victoria) Hospital, Narayanganj, Bangladesh; <sup>2</sup>Assistant Professor, Department of Neurology, MAG Osmani Medical College, Sylhet, Bangladesh; <sup>3</sup>Assistant Professor, Department of Hepatology, MAG Osmani Medical College, Sylhet, Bangladesh;

<sup>4</sup>Senior Consultant (Anesthesia), 250 Bedded Hospital, Moulvibazar, Bangladesh;

<sup>5</sup>Junior Consultant (Pathology), 250 Bedded Hospital, Moulvibazar, Bangladesh

[Received: January 2016; Revised: March 2016; Accepted: June 2016; Published: July 2016]

### Abstract

**Background:** Headache may occur due to different pathological condition in eye, brain or nasal cavity. **Objective:** The purpose of the study was to evaluate the pattern of headache patients in Eye OPD. **Methodology:** This retrospective study was carried out in the OPD of eye in the Sadar Hospital of Moulvibazar district of Bangladesh which was conducted from October 2014 to April 2015 for a period of seven (7) months. Here data of headache patients were collected from hospital record book with patterns of headache. Then total data were tabulated on age, sex, pattern of headache and chief complains. **Result:** The total study showed that out of 2206 patients 308(13.96%) patient came in Eye OPD. Among the headache patients, female were more (65%). Headache patients were more in 11 to 20 years (37.66%) age group and then 21 to 30 years (21.1%). However patients were less below 10 years (7.46%) with male and female nearly equal numbers. Above 10 years, female patients are more than male. In this study, we found migraine headache (69%) which included both purely migraine headache and mixed type headache comprising both migraine and tension, to be much more than non migraine headache (31%). Besides most headache patients (45.12%) complains of not only of headache also of dimness of vision, redness of eye, watering, nausea and vomiting. **Conclusion:** This study shows that a significant number of patients are suffering from headache. Its prevalence is more among female and young age group. [Journal of National Institute of Neurosciences Bangladesh, 2016;2(2): 75-78]

**Keywords:** Headache; eye; migraine;

**Correspondence:** Dr. Mohammad Iftexhar Hassib, Senior Consultant (Eye), General (Victoria) Hospital, Narayanganj, Bangladesh; Email: drmohammadiftexharh@gmail.com; Cell no.:

**Conflict of interest:** There is no conflict of interest relevant to this paper to disclose.

**Funding agency:** This research project was not funded by any group or any institution.

**Contribution to authors:** MA, FAR, AH, MRS & PB involved in protocol preparation, data collection and literature search up to manuscript writing. RH involved in preparation and revision of this manuscript.

**How to cite this article:** Hassib MI, Shoab AKM, Foez SA, Khan MAMSH, Chowdhury AR. Clinical Evaluation of Headache Patients attended at Eye OPD in a Secondary Level Hospital in Bangladesh. J Natl Inst Neurosci Bangladesh, 2016;2(2): 75-78

**Copyright:** ©2016 Hassib et al. Published by Journal of National Institute of Neurosciences Bangladesh. This article is published under the Creative Commons CC-BY- NC License (<https://creativecommons.org/licenses/by-nc/4.0/>). This license permits use, distribution and reproduction in any medium, provided the original work is properly cited, and is not used for commercial purposes.

### Introduction

Headache is defined by the dictionary as continuous or prolonged dull pain in the region of the head. Headache is one of the humanity's most frequent afflictions<sup>1-3</sup>. All of us have experienced headache in our life time except very few. Severe headache is reported to occur at least annually by 40% of individuals worldwide. In fact,

there are so many vexatious cases of headache that special headache clinics have been established in practically every medical center<sup>2</sup>. It is the most frequent and most ill-understood clinical symptom, which depends to a great deal on the emotional background and pain threshold of the subject. However, headache is usually a benign symptom and only occasionally it is

the manifestation of serious illness such as brain tumor, subarachnoid hemorrhage, meningitis or giant cell arteritis<sup>3</sup>. Even in emergency settings, only 5% of patients who present with headache are found to have a serious underlying neurological disorder<sup>3-8</sup>.

There are different causes of headache. Common causes are migraine, tension, ocular causes like refractive error, acute congestive glaucoma, acute uveitis, neurological condition like raised intracranial pressure, meningitis, intracranial space occupying lesion as well as temporal arthritis. Some times patients may have mixed headache like migraine with tension.

In eye OPD, usually headache patient comes with migraine, refractive error and other ocular causes. Severe headache patients with neurological causes rarely come in eye OPD. The prevalence of migraine in worldwide and in various population based studies showed that 4.0 to 6.0% men and 13.0 to 17.0% of women are suffering<sup>5</sup>. The purpose of the study was to evaluate the pattern of headache patients in eye OPD.

**Methodology**

This retrospective study was carried out in the OPD of eye in the Sadar Hospital of Moulvibazar district of Bangladesh from October 2014 to April 2015 for a period of seven (7) months. The data of headache patients were collected from hospital record book with their patterns of headache. Then total data were tabulated on age, sex, pattern of headache and chief complains. On the basis of chief complains, type of headache separate table was drawn.

**Results**

Total study showed that significant number of patients come in Eye OPD with headache. Here total data were grouped in six tables. A total number of 2206 patients were attended in the OPD of the hospital. Female patients were slightly more (51%) than male patients (Table 1).

Table 1: Total Patients attended Eye OPD (n=2206)

Gender	Frequency	Percentage
Male	1082	49.0
Female	1124	51.0
<b>Total</b>	<b>2206</b>	<b>100.0</b>

Total number of headache patients with their percentage in comparison to total patients attending eye OPD was recorded. Patients with headache were in 308(13.9%) cases and the rest 198(86.1%) cases were without any complains of headache (Table 2).

Table 2: Headache Patients attended in the OPD (n=2206)

Headache	Frequency	Percentage
Present	308	13.9
Absent	1898	86.1
<b>Total</b>	<b>2206</b>	<b>100.0</b>

It was clear that female headache patients were more predominant than male which were 108(35.0%) cases and 200(65.0%) cases respectively (Table 3).

Table 3: Gender Distribution among Patients Presented with Headache (n=308)

Gender	Frequency	Percentage
Male	108	35.0
Female	200	65.0
<b>Total</b>	<b>308</b>	<b>100.0</b>

Headache was more common in between 11 to 20 years and then 21 to 30 years. Female patients are more above 10 years of age. Below 10 years, Prevalence of headache is less with male and female nearly equal ratio (Table 4).

Only 19.15% of patients came in Eye OPD with only headache complain. Most patients came here with multiple complains like dimness of vision, watering, redness of eye, nausea, vomiting in addition to headache (Table 5).

This table shows that most of the headache patients are of migraine type which also includes mixed type headache comprising migraine and tension. In all types, female patients are more (Table 6).

Table 4: Headache Patients on Age Average and Sex Distribution (n=308)

0-10 Years		11-20 Years		21-30 Years		31-40 Years		41 Above Years		Total
M	F	M	F	M	F	M	F	M	F	
12	11	39	77	19	46	14	28	20	42	
<b>23(7.46%)</b>		<b>116(37.66%)</b>		<b>65(21.1%)</b>		<b>42(13.63%)</b>		<b>62(20.12%)</b>		<b>308</b>

Table 5: Headache Patients on Chief Complains (n=308)

Age Group	Only Headache		Headache With Dimness of Vision		Headache with or Without Dimness of vision		Total Patients
	M	F	M	F	M	F	
0 to 10 Years	4	4	5	1	2	5	308
11 to 20 Years	13	14	14	29	17	36	
21 to 30 Years	5	7	9	13	6	25	
31 to 40 Years	2	1	3	13	6	18	
41 Above Years	6	3	8	15	7	17	
<b>Total</b>	<b>30</b>	<b>29</b>	<b>29</b>	<b>71</b>	<b>38</b>	<b>101</b>	
	<b>59 (19.15%)</b>		<b>110 (35.75%)</b>		<b>139 (45.10%)</b>		

Table 6: Headache Patients With or Without Migraine (n=308)

Age Group	Headache Due To Migraine		Headache Not Due TO Migraine		Total Patients
	M	F	M	F	
0 to 10 Years	7	7	5	3	308
11 to 20 Years	30	57	11	26	
21 to 30 Years	14	30	5	15	
31 to 40 Years	9	22	3	8	
41 Above Years	16	20	5	15	
<b>Total</b>	<b>76</b>	<b>136</b>	<b>29</b>	<b>67</b>	
	<b>212 (69%)</b>		<b>96 (31%)</b>		

## Discussion

This retrospective study was carried out in Eye OPD of 250 bedded hospital, Moulvibazar. As it is a secondary level hospital, so it is a field level study. Total study shows that female patients (51%) are more than male in Eye OPD. It has been observed that 13.96% patients in Eye OPD came with headache. It is clear from this study that female headache patients are more than male. It correlates with all international and local studies. Headache is more common in 11 to 20 years age group (7.66%) followed by 21 to 30 years age group (21.1%). However, below 10 years headache prevalence is less (7.46%). Above 10 years in all age groups, female headache patients are more than male. Moreover, up to 10 years, male and female patients are nearly equal. This result is similar to other studies like Hoque et al<sup>8</sup>.

On the point of prevalence of headache on age, this study differs from study of Habib et al<sup>5</sup>. In their study, headache patients are 37.0% below 18 years; in 18 to 29 years it is 40.27% and above 50 years it is 3.32%. This study shows that headache patients above 40 years are 20.12%. The different types off complains of headache patients are recorded. Only 19.15% patients come in Eye OPD with only complain of headache and 45.1% patients come with complain of dimness of

vision, nausea, vomiting, redness and watering of eye in addition to headache.

This study clearly depicts that migraine type of headache is more common (69%) than non migraine type. In both groups female patients are more. This study is similar to the study of Narayan et al<sup>6</sup>. Their study shows 55.0% of total headache patients are due to migraine. Marcus<sup>7</sup> has evaluated 127 headache patients in headache clinic and has showed that 21.0% headache was due to migraine and 16% due to tension; however, 32.0% patients have both migraine and tension. In contrast study of Houque et al<sup>8</sup> have showed that tension type of headache is more common than migraine.

In context of gender, this study similar to Mamun et al<sup>9</sup>, where the authors have also found that migraine is more common in female. Therefore different studies about headache show different result on prevalence in age groups and type of headache. However, all studies have a common conclusion that female headache patients are much more than male patients.

There are some limitations of the study. As this is a secondary hospital based retrospective outdoor based study and due to patient burden and lack of instruments support all the investigational procedures can't be perform.

## Conclusion

In conclusion a significant number of patients are suffering from headache. Its prevalence is more among female and young age group. Moreover, headache is a major health problem in all age groups of patients. Common causative and triggering factors should be identified from the research work so that patients and guardians in case of child aged patients can take preventive measures. Therefore, widespread multicenter study should be done about headache along with identification of common causative and triggering factors.

## References

1. Campbell J. Keith, Caselil J. Richard. Headache and other craniofacial pain, In Bradley WG et al. eds. Neurology in clinical practice, 2nd ed. vol. 2 Butterworth-Heinemann, 1996; 1683-1719
2. Adams RD. Victor M. Ropper AH. Headache and other craniofacial pain, In Principles of Neurology, 6th ed. McGraw-Hill, 1997; 167-93
3. Raskin H. Neil: Headache, Unfauci AS et al eds. Harrison's principle of Internal medicine. 14th ed. vol. I McGraw-Hill; 68-72
4. Guidetti V, Gali F et al. Headache and psychiatric co-morbidity-clinical and outcome in an 8-year follow-up study. Cephalalgia 1998; 18: 455-61
5. Habib M et al. Headache, study of 3350 cases. Bangladesh J Neuroscience 2001;17(1):1-5
6. Narayan CS, Anwar KS, Mollah MA, Akhter S. Dynamics of Age and Gender-Dependant Correlates of Recurrent Headache in Bangladeshi Schoolers. Pediatric Research. 2011;70:148
7. Marcus DA. Identification of patients with Headache at risk, of Psychological Distress. Headache 2000; 40:373-76
8. Hoque MA, Rahman KM, Haque B, Chowdhury RN, Khan SU, Hasan AH, et al. Pattern of headache in school going children attending specialized clinic in a tertiary care hospital in Bangladesh. Oman Medical Journal. 2012;27(5):383-87
9. Hussain AAM et al. A study on Psychiatric Co-morbidity Among patients with Migraine. TAJ 2008; 21(2):12-15