

Original Article

## Clinical profile and commonly used Drugs and their response in chronic headache patients at OPD in DNMCH

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### Abstract:

**Background:** Headache is the most commonest presentation in Neurology Outpatient Department. Headache patient may present in different ways. It may vary in duration, character, severity, location, associated features, and trigger factors. In our clinical practice many drugs are used for treatment of headache. Responses of those drugs may vary from patient to patient.

**Objectives:** To see the clinical profile of chronic headache patients and commonly used drugs and their responses in those patients.

**Methodology:** It was a descriptive, cross sectional observational study. 100 patients presenting with chief complaints of headache to the Neurology OPD in Dhaka National Medical College Hospital between January 2018 to June 2018 were included. Patients with secondary cause of headache were excluded for the study. Results were tabulated and analyzed.

**Results:** Tension headache was the commonest headache type (72%), followed by migraine headache (28%). Intensity was severe in majority of cases (65%), frequency of headache was  $9.5 \pm 4.4$  (Min 2–Max 20) times per month with duration of  $2.8 \pm 1.4$  (Min 1–Max 12) days. Bilateral band like pain was the commonest (45%) clinical presentation. Among the associated features, vomiting (86%) and vertigo (56%) were common and journey was the commonest aggravating factor (78%). Commonly prescribed drugs were Amitriptyline (70%) and Propranolol (48%). Drug response was good among 66% patients.

**Conclusion:** Clinical presentation of headache may vary patient to patient. The diversity of headache presentations and response to the drugs need to know very well for accurate diagnosis and management of headache patients.

**Key words:** Chronic headache, Drugs.

### Introduction

Headache is the most common disorder in our clinical practice. Headache has wide spectrum presentations. It varies patient to patient, region to region. As in other parts of the world, in Bangladesh too, Headache is the commonest one in our Neurology Outpatient Department. Tension-type headache is very common, with a lifetime prevalence in the general population ranging in different studies between 30% and 78% and Migraine ranked as third most prevalent disorder in the world.<sup>1</sup> In GBD 2015, it was ranked third–highest cause of disability worldwide in both males and females under the age of 50 years.<sup>2</sup> There is lack of study about Headache presentations and its variation, drugs uses in the headache and their responses. The present study

designed to study the clinical profile of headache, drugs used in the headache and their responses.

### Materials and methods

In this descriptive, observational study, total number of 100 headache patients were randomly selected clinically from the period of January 2018 to June 2018 at neurology department of Dhaka National Medical College Hospital.

For each patient a routine clinical questionnaire was completed. The questionnaire consisted of details on the onset and lifetime duration of the illness, the pattern of headache, associated factors. Patients with secondary cause of headache was excluded for the study.

The International classification of headache disorder, version 3 was applied and as many diagnosis as was necessitated by the criteria and as was clinically justified, were assigned to each patient.

Statistical analysis was done using STATA 10 software.

#### Results:

Out of 100 cases, most of the cases were diagnosed as Tension type headache (72%) then Migraine headache (28%).

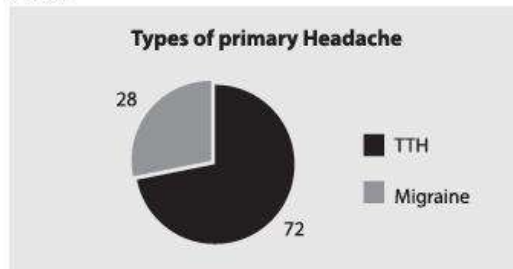


Figure-I: Types of Headache

Table-I: Headache frequency and duration among study population

Headache Character	
Frequency	9.5±4.4 (Min 2- Max 20) times per month. Above 10 times per month 44 persons (44%)
Duration	2.8±1.4 (Min 1 - Max 12) days.

Among headache patient, headache frequency were 9.5±4.4 (Min2-Max 20) times in one month. Above 10 times in each month were found among 44% patient. In each patient of headache, pain was persisted averagely 2.8±1.4 (Min 1-Max 12) days

Table-II: Intensity of pain among population

Intensity of pain	Frequency	Percentage	Cum.
Moderate	35	35.00	35.00
Severe	65	65.00	100.00
Total	100	100.00	

Headache was severe in 65% of the cases and moderate in 35 % of the cases (Table-II)

Table-III: Location of pain among population

Location of pain	Frequency	Percentage	Cum.
Unilateral	18	18.00	18.00
Bilateral	45	45.00	63.00
Frontal	30	30.00	93.00
Occipital	7	7.00	100.00
Total	100	100.00	

Location of the headache may vary patient to patient and bilateral headache was 45%, frontal 30%, unilateral 18% (Table-III).

Table-IV: Associated Features with Headache in population

Associated feature	Present in cases (in number)
Aura	08
Photophobic and Phonophobia	68
Nausea/Vomiting	86
Lacrimation	06
Vertigo	56

Headache was associated with several associated factors like nausea and vomiting (86%), Photophobia & Phonophobia (68%), vertigo (56%) (Table-IV)

Table-V: Aggravating factor of headache patients

Aggravating factor	Present in cases (in number)
Movement	26
Smoke	12
Journey	78
Any Smell	38
Fasting	52

There were some aggravating factors causing aggravation of intensity as well as frequency of headache. Those were Journey (78%), Fasting (52%), Smell (38%), Movement (26%), and Smoke (12%) (Table-V)

Table-VI: Drugs used among headache patients

Drug used	Present in cases (in number)
Amitriptyline	70
Flupenthixol	36
Nortriptyline	12
Propranolol	48
Sodium valproate	8
Tolfenamic acid	4
Pizotifen	2
Escitalopram	2
Clonazepam	2

Most of the headache patient were treated with single or combination drugs and those were amitriptyline (70%), propranolol(48%), flupenthixol(36%), nortriptyline(12%), sodium valproate(8%), pizotifen(2%), escitalopram(2%), clonazepam(2%). Responses were better in amitriptyline and propranolol combinations as well as amitriptyline and sodium valproate.



**Table-VII: Response to drugs among headache patients**

Respond to drug	Freq.	Percent.	Cum.
Marked to moderate	66	66.00	66.00
Slight	24	24.00	90.00
Unchanged	10	10.00	100.00
<b>Total</b>	<b>100</b>	<b>100.00</b>	

Among the treated patient 66% patient were marked to moderate responder, 24% were slight responder and 10% were unchanged to the drugs. Analgesic or abortive drugs were avoided as because they induce rebound or medication over use headache.

### Discussion

This observational study estimated the prevalence of different types of headaches among the study populations. It showed that 72% patients suffered from TTH and 28% from migraine headache. Tension type headache has been observed in higher prevalence than migraine in most of the population based studies.<sup>3</sup> We found the similarities in other studies done in different countries like: in Isfahan<sup>4</sup> (44.2% TTH versus 14.2% migraine); Jordan<sup>5</sup> (36.9% TTH versus 7.7% migraine); Zagreb<sup>6</sup> (57.69 versus 8.86%); while in Oman<sup>7</sup> both were equal (12.2%).

In addition to headache, there were some associated features, commonly found during taking history of headache patient. Those are Nausea & vomiting 86%, vertigo 56%, Photophobia 44%, Phonophobia 24%, Aura 8%, and Lacrimation 6%. These accompanying symptoms increase the disability of the patient and are usually more problematic for the patient. These associated symptoms, known as migraine variant, when more prominent than the headache, it makes the diagnosis difficult and delay the Management. These findings of associated features are in almost consistent with other studies.<sup>8,9</sup>

We also noticed some aggravating factors which were influencing the headache intensity. Those are journey (78%), fasting (52%), smell (38%), movement ((26%), smoke (12%). Mustaq et al.<sup>10</sup> found similar aggravating factors in their study and sleep deprivation was an important aggravating factor for headache.

Headache patients were treated commonly with amitriptyline (70%), propranolol (48%), flupenthixol (36%), nortriptyline (12%), sodium valproate(8%), pizotifen (2%), escitalopram (2%), clonazepam (2%). Those drugs were used either single or combination to

treat the migraine and tension headache. Other researchers had found that amitriptyline was most effective drug for Tension headache.<sup>11,12</sup> Islam et al.<sup>13</sup> found that amitriptyline and propranolol combination were more effective than monotherapy for migraine headache. We also found that combination drugs superior than monotherapy in headache treatment. Lenaerts et al.<sup>14</sup> and Rothrock et al.<sup>15</sup> found that sodium valproate were effective in chronic tension headache and migraine as well. SSRI drugs are recently used in headache patient but showed no superiority than the tricyclic antidepressant.<sup>16</sup> In our study, we also found that Sodium valproate, SSRI were not superior than the tricyclic antidepressant.

Drug responses were varied, it depend upon types of drugs and doses of drugs. We have documented the drugs responses of commonly used drugs in our study and we stratified the response on the basis of Physician Global Assessment, response to treatment (PGART scale). We found that marked to moderate responder were 66%, slight responder were 24%, Unchanged 10%. Gopalakrishnan S et al.<sup>17</sup> found the similar drug response to the prophylactic drugs.

### Conclusion

Primary headache was the commonest clinical presentation in our outpatient department and also in daily practice. Tension headache was more common than migraine headache. Nausea, vomiting, photophobia, phonophobia were commonly found associated features and journey, fasting, smell, movement were common aggravating factors. Amitriptyline, propranolol, flupenthixol, sodium valproate were commonly used drugs for headache patients. Most of the headache patients were good responder with those drugs in single use as well as combination.

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