

Study of Patients Presenting with Complaint of Headache in ENT Outpatient Department: A Prospective Study

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Abstract

Introduction: Headache is perhaps one of the most common symptoms in medical practice. In most of the cases, headaches are not harmful, but in some cases, they can show symptoms of meningitis, stroke, brain tumor, or subarachnoid hemorrhage.

Aims and Objectives: The aims of this study were as follows: (1) To study the common age and gender distribution of headache. (2) To find out triggering and relieving factor. (3) To categorize different types of headache cases coming to an ENT specialist. (4) To find out frequency of sinus disease causing headache.

Methods: A total of 150 patients were selected randomly, attending ENT department with history of headache. A ready questionnaire was used to record the data of patients. Patients coming with different form of neuralgic pain were excluded from the study.

Results: The patients in the age group of 21–30 were experiencing more head ache. Women suffer more than men do from headache. Stress was found to be the triggering factor, whereas medication and good sleep were found to be relieving factor. Tension type headache followed by migraine were the most common cause among primary headache. A good number of patients 72 (48%) were having existing ENT-related problems.

Conclusion: The study showed the challenges of patients experiencing headache and approaching the ENT department to determine the exact cause of headache and get satisfactory treatment. A group of doctors consisting of ENT specialist, neurologist, ophthalmologist, psychiatrists, and psychologist can bring many benefits to remove or cut short the victims sufferings.

Key words: Headache, Migraine, Primary headache, Secondary headache, Sinus headache, Tension type headache

INTRODUCTION

Headache is one of the most common symptoms in medical practice. Headache is defined as pain or any unpleasant sensation in the region of cranial vault above the orbitomeatal line. The international classification of headache disorders classified headache into two principal types – primary headache and secondary headache. Primary headache is the one, in which research scientists have

failed to reach any specific causes. Secondary headache is attributed to innumerable reasons and can be caused by any physical disorder or discomfort. The primary headaches include migraine, tension type headache (TTH), cluster headache, and other trigeminal autonomic cephalalgias.^[1]

It is hard to find out a human being who had never experienced headache in life time. However, consultation with the physician is done very seldom. Therefore, the true incidence of headache remains unknown. In general, the primary headache disorders constitute nearly 98% of all headaches, with TTH and migraine being the most prevalent.^[2] TTH affects 60–80% of the population, while migraine has a prevalence of 11–15%.^[3,4] However, a number of patients come to the ENT specialist with a headache claiming to have “sinus trouble,” but, in reality, only few patients have headache of nasal or sinus

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Month of Submission : 10-2022
Month of Peer Review : 11-2022
Month of Acceptance : 11-2022
Month of Publishing : 12-2022

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headache and headache due to refractive errors that are very commonly misdiagnosed as “sinus headache” and are investigated and treated for the same which increases the economic burden on the patients.^[5-9]

The diagnosis of the underlying cause of headache depends mainly on an accurate history taking. History must reveal the true characteristic of headache, for example, onset whether sudden or gradual, length of suffering whether recent or old, periodicity whether episodic or chronic, triggering factors, for example, stress, nasal blockage, nasal cold, any particular food, insomnia, excessive sleep, and weather change, relieving factors, for example, good sleep, vomiting, and medication, complaints in relation to ENT head and neck region, for example, nasal obstruction, nasal cold, earache, pain on opening the mouth, toothache, and dysphagia, and complaints in relation to eyes, for example, blurring of vision, pain in eye; h/o any head injury, h/o vascular disease, metabolic disorder, or OTC drug taken for headache.^[10]

A complete physical and neurological examination should be done. In majority of cases, investigations are not required to reach a diagnosis.^[11]

The prevalence of headache in ENT patients and its subsequent changes of misdiagnosis is high. Hence, this study was aimed to analyze the incidence of headache in ENT department patients and various triggering and relieving factors for headache.

Aims and Objectives

This aims of this study were as follows:

1. To find out the common age and gender distribution of headache
2. To find out the triggering and relieving factors of headache
3. To categorize different types of headache cases coming to ENT specialist
4. To find out the frequency of sinus disease causing headache.

METHODS

A total of 150 patients were selected randomly, attending ENT outpatient department of SMHS Hospital GMC Srinagar, J and K from June 2018 to 2019. A patient approaching with complaint of headache with history of recurrent episode was included in the study. Patients coming with different forms of neuralgic pain in head neck region such as TM joint neuralgia, glossopharyngeal neuralgia, or atypical facial pain were excluded.

A questionnaire sheet was given to each patient who was filled by the patient after having thorough conversation

for 15–20 min with the patient. For every case, the characteristics of headache, symptoms associated with it, triggering factors, relieving factors, and complaints related to ENT Head – Neck region or Eye or CNS were noted carefully. Any previous history of head injury and present or past medical disorders was also documented in the ready sheet. A thorough and complete ENT head – neck and neurological examinations was done. The main purpose of majority of the patients to see an ENT specialist was the fear of having sinus disease, so an X-ray PNS occipitomeatal view was advised to all patients either to exclude sinus disease or prove sinus disease when history was suggestive.

RESULTS

For the study, a total 150 cases of headache were selected randomly.

DISCUSSION

The purpose of this study was to find out the age and sexual criteria of headache cases which come to ENT specialist. The age range was divided into five groups ranging from 11 to 60 years [Table 1]. The prevalence of headache in our study was maximum in age group of 21–30 years (35.33%), and thereafter, the prevalence declined which was similar with the study conducted by Tepper *et al.*, Alberca *et al.*, and Bahra *et al.*^[12-14]

In this study, majority of patients were female (67.33%) than male (32.66%) in every age group [Table 1] which is similar with the study conducted by Bahra *et al.* and Manzoni *et al.*^[15,16]

In present study, stress (14.66%) was the major triggering factor responsible for headache, followed by nasal cold (12%) and insomnia (11.33%) [Table 2]. Stress is also mentioned as the principal factor triggering headache in different studies conducted on headache.^[17,18] However, the most common attributions of headache remains unrealized (16.6%).

Other factors which were discovered in our study that trigger headache include nasal blockage (8%), sunlight

Table 1: Age and gender distribution (n=150)

Age in years	Male patient (%)	Female patients (%)	Number of patients	Percentage
11–20	15 (10)	26 (17.33)	41	27.33
21–30	15 (10)	38 (25)	53	35.33
31–40	12 (8)	22 (14.66)	34	22.66
41–50	05 (3.33)	11 (7.3)	16	10.66
51–60	02 (1.33)	04 (2.6)	06	04

Table 2: Factors triggering headache

Triggering factor	Times mentioned	Percentage
Stress	22	14.66
Nasal cold	18	12
Insomnia	17	11.33
Nasal block	12	8
Sunlight	11	7.3
Long journey	08	5.3
Excessive talking	06	4
Excessive sound	05	3.3
Looking downward	04	2.6
Looking upward	04	8
Miscellaneous	14	9.3
Not realized	25	16.6

Table 3: Factors relieving headache

Relieving factors	Times mentioned	Percentage
Medication	48	21.33
Good sleep	32	21.33
Vomiting	10	6.6
Relieved spontaneously	09	6
Not relieved by anything	04	2.6
Not recognized	35	23.33

Table 4: Single clinical diagnosis (n=150)

Headache type	No of patients	Percentage
TTH	64	42.66
Migraine	52	34.66
Cluster headache	13	8.6
Paroxysmal hemicrania	7	4.6
Sinusitis	7	4.6
H/O head injury	7	4.6

TTH: Tension type headache

Table 5: ENT problem along with primary headache (n=150)

Cause of headache	Number of patients	Percentage
TTH+DNS	20	13.33
Migraine+DNS	15	10
Migraine+Sinusitis	08	5.3
TTH+Sinusitis	12	8
TTH+Nasal polyp	02	1.3
TTH+Nasal allergy	05	3.33
Migraine+Nasal allergy	08	5.3

TTH: Tension type headache

(7.3%), long journey (5.3%), excessive talking (4%), excessive sound (3.3%), looking downward (2.6%), looking upward (8%), and miscellaneous (9.3%).

Among the relieving factors [Table 3], medication 48 (21.33%) was found to be highest relieving factor, followed by good sleep 32 (21.32%) and vomiting 10 (6.6%). Medication was also noted to be the main relieving factor of headache in study conducted by Goadsby and Lipton, Aromaa *et al.*^[17,18]

Table 6: Significant ENT problem in headache patients (n=150)

ENT problem	Present (%)	Absent (%)
No. of patients	72 (48)	78 (52)

Table 7: Referral required for further management (n=150)

Name of discipline	Number of patients	Percentage
Neuromedicine	02	01.67
Ophthalmology	04	03.33
Psychiatry	01	00.84
Physical medicine	01	00.84
ENT surgery	15	12.50

Sinusitis is the common cause of headache worldwide affecting millions of individuals, but only 7 (4.6%) cases of headache were truly seen diagnostic of sinus headache following the criteria of his [Tables 4 and 5]. Among the primary headache, most common cause on our study was TTH (42.66%), migraine (34.66%), cluster headache (8.6%), paroxysmal hemicranias, sinusitis, and h/o head injury (4.6%). This is similar with the study conducted by Goadsby and Lipton, Aromaa *et al.*^[17,18]

In our study, a number of cases 72 (48%) had a coexisting significant ENT problem along with primary headache explaining the reason why headache is thought to be sinus in origin [Table 6].

For further evaluation, we had refer 2 (1.67%) cases to neurophysician, 4 (3.33%) cases to ophthalmologist, 1 (0.84%) cases to psychiatrists, and 1 (0.84%) cases to physical medicine. Fifteen (12.5%) cases, however, require surgical treatment in nose and paranasal region [Table 7].

CONCLUSION

Headache is nearly a universal human experience. The lifetime experience of headache is estimated to be at least 90%. Most of the patients either suffer from vascular or muscular headache diagnosed by medical practitioner or self-diagnosed as sinus headache. Thus, majority of cases can be treated by the primary care physicians or generalist with a correct clinical diagnosis without any special investigation. Therefore, a group of doctors consisting of ENT specialist, neurologist, ophthalmologists, psychiatrists, and psychologist can bring many benefits to remove or decrease the suffering of headache patients.

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How to cite this article: Dar BS, Manzoor R, Mehta KS. Study of Patients Presenting with Complaint of Headache in ENT Outpatient Department: A Prospective Study. Int J Sci Stud 2022;10(9):70-73.

Source of Support: Nil, **Conflicts of Interest:** None declared.