

## **Clinical Profile and Precipitating Factors of Migraine In Patients Attending a Tertiary Health Care Centre**

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### **Abstract**

**INTRODUCTION:** Headache is a common neurological complaint in the community, various types of headaches are complained by the patients which are quite different from the migraine type of headache. Migraine causes severe throbbing pain or pulsating sensations usually on one side of the head. Prevalence of migraine is gradually increasing in India. More than 213 million people in India were found to be suffering from migraine in the year 2019, among these cases 60% of the cases were reported by women.

**MATERIALS AND METHOD:** In this cross-sectional type of migraine study, it is based on information collection from the patients in a questionnaire format. The participants in this study are recruited from our patients of at Department of Neurology, Dr. Pinnamaneni Siddhartha Institute of Medical Sciences & Research Foundation from August 2021 to January 2022. Information from the participants is collected by their own will without any compel to pass on this project.

**RESULT:** In this study among the 50 migraine patients chosen as participants of the study, the age prevalence for the incidence of the migraine headache. By dividing all the 50 participants of the study into their respective age groups, total of four age groups have been segregated. In age group of 10 - 20 years a total of 11 participants come under this age group out of 50 migraine patients. 3 participants fall under the age group of 21 - 30 years, 25 members come under age group of 31 - 40 years, 10 participants come under 41 - 50 age group, and remaining 1 person belongs to age group of 51- 60.

**CONCLUSION:** The common risk factors mentioned by most of the participants stress, travelling, bright light, loud sounds, performing the physical activity aggravating headache. For most of the participants there is accountable functional disability with migraine. Migraine is mostly affecting female population compared with the male population.

**Keywords:** Migraine, Aura, Pulsating sensations.

## **INTRODUCTION:**

Headache is a common neurological complaint in the community, various types of headaches are complained by the patients which are quite different from the migraine type of headache. Migraine causes severe throbbing pain or pulsating sensations usually on one side of the head. <sup>[1]</sup>

Prevalence of migraine is gradually increasing in India. More than 213 million people in India were found to be suffering from migraine in the year 2019, among these cases 60% of the cases were reported by women. According to the report titled 'THE BURDEN OF NEUROLOGICAL DISORDERS ACROSS THE STATES OF INDIA' the global burden of disease study 1990-2019 states the most prevalent neurological disorders in India in year 2019 are headache disorders which includes migraine, tension type headache, accounting about 488 million people. <sup>[2]</sup>

Migraine prevalence is also high among neurologists than in non neurologists, according to the population prevalence studies on migraine stated that, average prevalence of migraine is about 12%. But migraine prevalence among the neurologists is between 27.6% to 48.6%, that is at least 2 to 3 times more than normal population studies. This change in the percentiles among the neurologists may be due to significant under recognition of migraine among non neurologists. <sup>[3]</sup>

The onset of migraine is typically between 18-40 years with a mean age of 35.22 years. In approximately 60 - 70% of the patients with migraine, the onset of headache is preceded by non specific malaise and irritable feelings, such as euphoria, depression, food cravings, fatigue, hypomania, cognitive slowing, dizziness and asthenia. These symptoms are called migraine prodromes and may occur early 24 hours before the migraine attack. <sup>[4]</sup>

Adolescent age groups and most of the young age groups are probably more likely to suffer from migraine, India being the second most populated country have large group of adolescent and young age groups. Since migraine is affecting large portion of the population, it definitely show impact on the health status of the country and also have huge impact over the work ability of these age groups.

The preliminary reason for the contemplation of this project is after all those above reasons, considering migraine creating a health burden on to the country by increasing the morbidity and inconvenience in the young and adolescent age groups. Many studies had taken part in the prevalence of migraine in different age groups most common age groups the migraine is more troublesome, various risk factors that provoke for migraine. <sup>[5]</sup>

**AIMS AND OBJECTIVES:**

- 1) To study the gender, age, distribution, severity of the migraine attack.
- 2) To explore clinical profile and functional disability of the patients with migraine.
- 3) Find out any other associated symptoms in patients presenting the migraine.
- 4) To study in detail about triggers of migraine.

**MATERIALS AND METHOD :**

In this cross sectional type of migraine study, it is based on information collection from the patients in a questionnaire format. The participants in this study are recruited from out patients of Department of Neurology, Dr. Pinnamaneni Siddhartha Institute of Medical Sciences & Research Foundation from August 2021 to January 2022.

This study is done on either previously known patient of migraine and still continuing taking medication as part of treatment or newly diagnosed individuals as migraine or already treated patients. In all these conditions the basic criteria for people to be diagnosed as migraine is fulfilling the ICHD3 criteria

**INCLUSION CRITERIA:**

- 1) Patient of both sexes and all age groups fulfilling the ICHD3 criteria were included in the study.
- 2) Patient with or without aura are considered under the study.

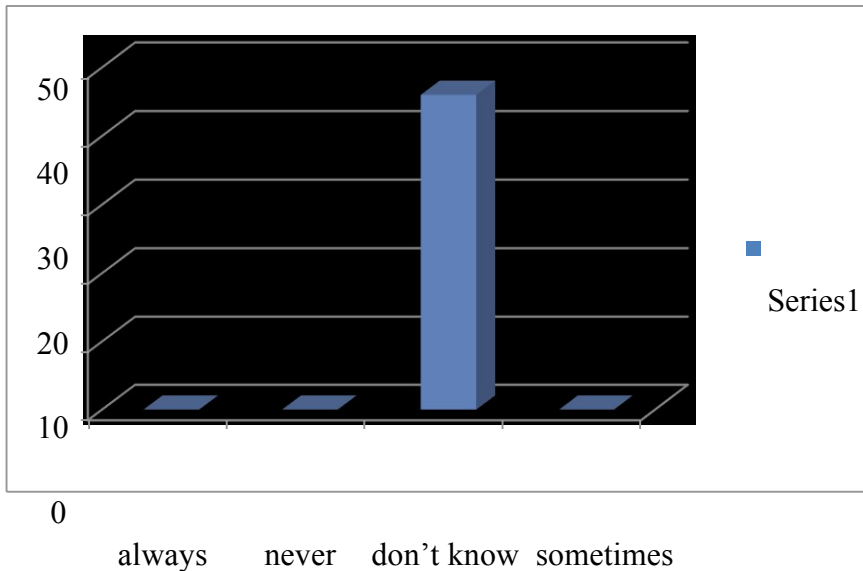
**EXCLUSIONS CRITERIA:**

Patients with headache due to any other etiologies like history of trauma, vascular disease, epilepsy are not included in the study.

Patients with psychiatric co morbidities, pregnant and lactating women were excluded from the study.

**RESULTS:**

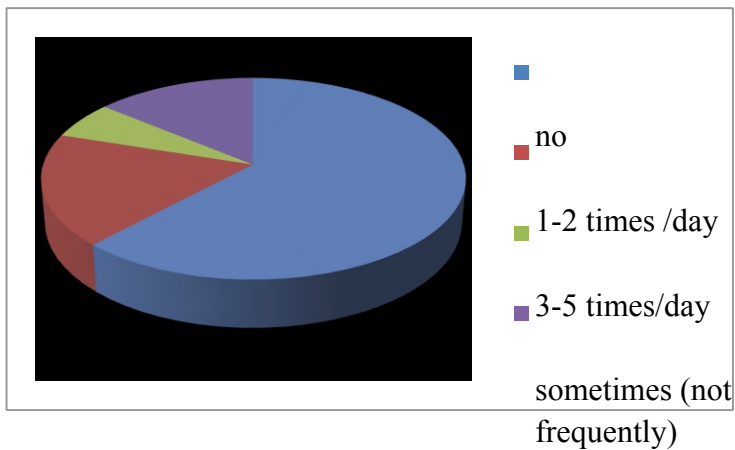
In this study among the 50 migraine patients chosen as participants of the study or divided into 4 groups. And considering the gender prevalence among this 50 migraine participants. There are more number of female patients reported compared to the males. In this particular study among the 50 members only 4 participants are male and remaining are female participants.



don't know : 100% ( 50 out of 50 participants).

according to the information given by participants, all mentioned no history of usage of hormonal supplements for a long period of time, to observe the effect of hormonal supplements on triggering headache.

(1) number of times taking caffeinated drinks :



no habit of having coffee/caffeinated drinks : 31

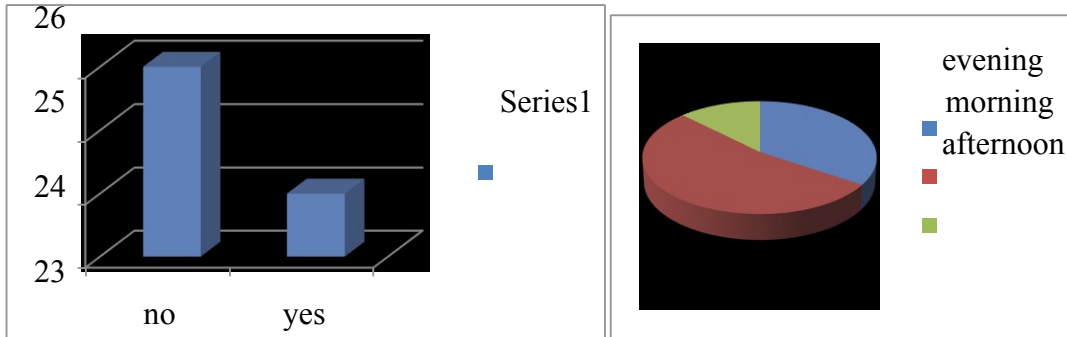
taking 1-2 times coffee per day : 9

taking 3 - 5 times coffee per day : 3

taking only sometimes not frequently : 7

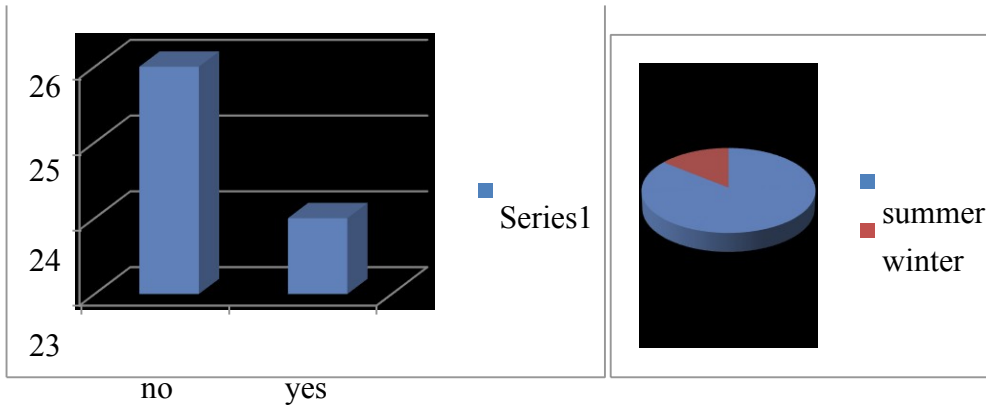
Only 3 participants among 50 participants in the study take caffeinated drinks 3-5 times a day, these 3 participants complain headache if there is history of missing coffee intake about 8-12 hours before headache incidence.

(2) any specific time for the headache incidence:

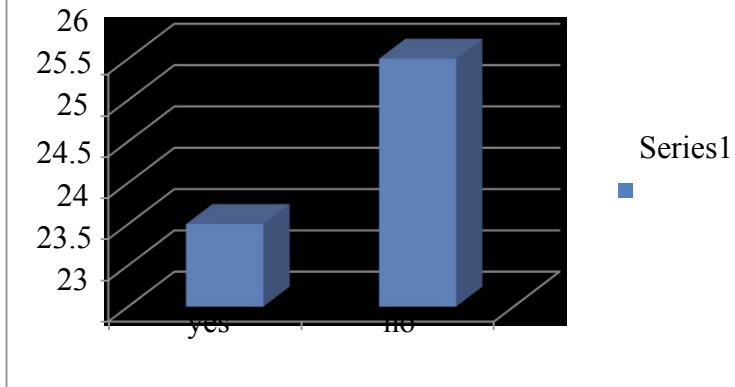


incidence of headaches are often having more chance for occur in morning than evening and afternoon.

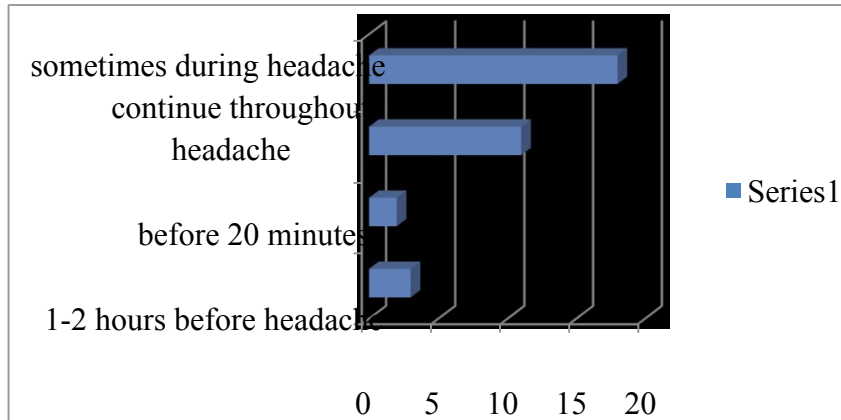
(3) any specific seasons for more number of migraine incidences:



(4) any change in vision observed before attack of headache:



if yes how long before headache do visual changes occur:



most of the participants have experienced the visual field defects. The visual disturbances are not continuous and occur only during severe headache to most of the participants. (29) Other symptoms: are also mentioned by each participant during an episode of headache. nausea, vomiting, numbness at back of the neck and shoulders, episilateral eye ball and face pain, body pains.

#### **DISCUSSION:**

In this study almost all the mentioned triggering factors are selected positive for at least one among 50 participants.

On basis of the age dependent categorization of these migraine patients, it could be clearly seen that the prevalence of migraine is more in middle aged groups like 31 to 40 years age groups and least number of participants are from the age group of 51 to 60 and 21 to 30 years.

As per the previous studies on the age distribution of the migraine patients, there shows two peaks in the migraine age incidence graphs. Number of migraine cases are more in between late adolescent period and to middle aged period. But in this particular short term study with limited and small number of patients there are more number of migraine patients in the middle aged group compared with the adolescent age groups.

The ratio of the male : female participants is 2: 23 that is for every 23 female participants there is one male participant. Many of the previous studies also mentioned that number of migraine cases are more common among the female than males.

History of missed meals leads to migraine episode by most of the participants in this study.<sup>[5]</sup> Previously reported studies also mentioned dietary habits of the patients play crucial role as triggering factor.<sup>[6]</sup> But most of the participants do not complain any history of migraine after too much eating.<sup>[7]</sup>

The factors which influenced the incidence of headache in most of the participants are too much stress before headache, changes in the altitude either going suddenly to low or suddenly to high altitudes, seeing bright light, listening to loud sounds, travelling before headache.<sup>[8]</sup>

Most of the participants complained of severe fatigue both during and after the episode of headache. But most of the people feel more fatigue after an attack of headache. On basis of this study when a person during an episode of headache performs daily works and activities they noticed an increase in intensity of headache.

Severe mood swings are also a common complaint by the participants, mostly during the episode of headache they get easily irritated, anger, aggressive behavior, and shout load on family members. these are the main mood swings mentioned.<sup>[9-14]</sup>

By facing all these unhealthy events during an episode of migraine, some of the patients had build up some fear and phobias towards the attack of headache.

A part from these factors, other symptoms that are most commonly mentioned are nausea, vomiting, numbness on back of neck, episilateral face and eyeball pain (on the same side of the headache), body pains, visible palpitations on forehead of patient.

Only small proportion of participants mentioned incidence of headache due to strong smells like pungent bad smell, rotten odor, strong scent smells, camphor odor, agarbathi smell.

## **CONCLUSION :**

The common risk factors mentioned by most of the participants stress, travelling, bright light, loud sounds, performing the physical activity aggravating headache. For most of the participants there is accountable functional disability with migraine. Migraine is mostly affecting female population compared with the male population, each person do have their independent set of risk factors that could lead to migraine attack

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