

Original Research Article

Migraine synonyms in South Indian coastal population: a retrospective study

M. V. Francis*

Headache and Neuroophthalmology Services, Teresa Eye and Migraine Centre, Cherthala, Kerala, India

Received: 12 February 2023

Revised: 07 March 2023

Accepted: 14 March 2023

***Correspondence:**

Dr. M. V. Francis,

E-mail: mvfrancis@rediffmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: A direct question like, do you get headaches or had headaches in the past will not unravel past history of migraine in many patients in Southern coastal region of India. This study was conducted to document migraine synonyms in this population.

Methods: A 5-year retrospective study was conducted in 2 outpatient clinics in a coastal region of Southern India. When children were brought with recurrent headaches, as an aid to diagnosing migraines, family history of headache or migraine was recorded from their mothers and grandmothers. They were asked two questions - do you get headaches or suffered from headaches in the past. If they replied in the negative, a third question was asked do you get any head discomfort /head pain along with any other illness.

Results: Out of 7000 mothers and grandmothers interviewed, 1778 reported headache in the past resembling migraine or probable migraine. 1001 who said no headache in the past, were getting other migraine synonym disorders in which headache was one of the complaints. 22 different synonyms which fitted into migraine diagnostic features were documented in this group of study participants.

Conclusions: To diagnose migraine and its subtypes, 2 (aura) to 5 (without aura) past episodes are mandatory. This study proves that a sound knowledge about local migraine synonyms and slangs are important to elicit past history of migraine. Headache epidemiological studies can be flawed if only one leading question like do you get headaches/suffered from headache in the past is asked.

Keywords: Migraine, Headache, ICHD

INTRODUCTION

Migraine is one of the most common and disabling neurological disorder, affecting approximately 10 to 30% of the world's population. Migraine presents with different characters of headache, various types of auras, associated symptoms including autonomic, dizziness, vertigo and rarely motor and psychiatric symptoms. Due to this wide range of presentation; patients with migraine are often subjected to unnecessary investigations, frequent reference to different specialists, and sometimes even receive nonspecific and only symptomatic treatment thus facing

delayed diagnosis. A Hospital based cross sectional study conducted on 100 migraine patients attending neurology outpatient department of All India Institute of Medical Sciences, Bhopal found that diagnosis was "inappropriate" in 65 patients. The percentage of inappropriate diagnosis was 25% (neurologists); 89.3% (physicians); 100% by (ophthalmologists). This study proves that migraine diagnosis is often missed in clinical practice.¹

The possible causes of delayed or missed migraine diagnosis in clinical practice are listed in Table 1.

Table 1: Causes of delayed or missed migraine diagnosis.

S. no.	Questions
1	Lack of knowledge of the exact International Classification of Headache Disorders (ICHD 3) diagnostic criteria
2	Multiple symptoms and related confusion
3	Limited time available to rule out different headache disorders and red flags
4	Patient not presenting exactly as per the ICHD 3 criteria
5	Patient being asymptomatic at presentation and having irregular attack frequency
6	Patient not reporting certain symptoms considering irrelevant
7	Patient considering or indicating other systemic disorder as the cause of headache
8	Patient not aware of family history or parents never diagnosed as migraine
9	Migraine and tension type headache (TTH) have many overlapping diagnostic criteria which confuse general practitioners. ^{2,3}
10	Tension or stress is a significant trigger in precipitating migraine but often labelled as TTH
11	Not asking for episodic syndromes of childhood (infantile colic, alternating hemiplegia of childhood, recurrent gastrointestinal disturbances, cyclical vomiting syndrome, abdominal migraine, benign paroxysmal vertigo, benign paroxysmal torticollis) which may unmask some of the past episodes of migraine attacks. ³
12	Not giving sufficient consideration for vestibular migraine symptoms. ³

Migraine does not always present in the classical way as described by ICHD3 classification in clinical practice. The ICHD3 classification defines a category called ‘probable migraine’ as migraine-like attacks missing one of the features required to fulfil all criteria for a type or subtype of migraine, and not fulfilling criteria for another headache disorder. In patients who already have a migraine diagnosis, and where the issue is to count the number of attacks they are having, attacks fulfilling criteria for Probable migraine should be counted as migraine. The reason for this is that mild migraine attacks, or attacks treated early, often do not achieve all characteristics necessary for a migraine attack diagnosis but nevertheless respond to specific migraine treatments.⁴

METHODS

This was a retrospective observational study (n=1001) conducted over 5 years (March 2015 to February 2020) in 2 outpatient clinics (Teresa Eye and Migraine Centre, Cherthala and St. Sebastians Visitation Hospital, Arthunkal) at Allepey, Kerala, India. The Institutional Ethics committee approval was obtained. In clinical practice, a direct question like, do you get headaches or had headaches in the past does not reveal migraine in 18 % of patients in this part of India. In this study, if first question of do you get headaches or suffered from headaches in the past was replied in the negative, a second question was asked. Do you get any head discomfort/throbbing /pain along with any other illnesses in the past? If the answer is yes, more details of these head discomfort/sensations were documented. The findings were defined based on how patients look at headache/migraine and hence determines how they will present or describe their symptoms to clinician. These findings do not indicate a differential diagnosis for migraine, but patient made synonyms for headache or migraine. Moreover, they may use local slangs to describe

symptoms and what they attribute their headache to (For e.g., less blood in body for anaemia). Many patients have systemic disorders coexisting with migraine but patient attribute the headache to the systemic disorders rather than to migraine.

Inclusion criteria

Mothers and grandmothers presenting with their children or grandchildren with recurrent headaches with family history revealing no headache or migraine on first questioning.

Exclusion criteria

Fathers and grandfathers or other male members accompanying children as they are not usually well aware of child’s complete headache symptoms and family history. All who presented with red flag symptoms and signs were also excluded.

Descriptive statistics were used to describe the data in terms of percentage. The patient demographic data has been omitted as the study is focussing on the parents or caregiver responses to clinch the diagnosis.

RESULTS

Out of 7000 mothers and grandmothers interviewed, 1778 reported headache in the past resembling migraine or probable migraine. A total of 1001 who said no headache in the past, were getting other migraine synonym disorders in which headache was one of the complaints. The study identified 22 different synonyms which fitted into migraine diagnostic features were documented in this group of study participants.

The disorders that can be considered by patients as migraine/headache synonyms can be classified under 3 categories with their percentage prevalence mentioned below (Tables 2-4).

Table 2: Presentation category 1- systemic disorders considered as cause of headache (instead of migraine).

Disorder/disease	Percentage of cases (%)
Cardiovascular	
High blood pressure	8.5
Low blood pressure	8.8
Anemia	0.3
Ear nose throat	
Sinusitis	62.8
Ear balance dysfunction and less sodium (for vestibular migraine)	5.4
Polyp pain	0.5
Eye	
Spectacle related	4.3
Short sight pain	0.4
Occasional blurring of vision which was typical aura or probable auras	1.1
Gastrointestinal	
Gas problem and acidity - migraine premonitory symptoms	1.8
Period pain and PCO (polycystic ovary) pain for menstrual migraine	0.6
Vitamin deficiency	0.4

Table 3: Presentation category 2- triggers considered as cause of headache (instead of migraine).

Disease/disorder	Percentage of cases (%)
Tension, anxiety and stress related headache	3.2
Sun exposure headache	0.4

Table 4: Presentation category 3- headache synonyms (instead of migraine headache).

Disorder/disease	Percentage of cases (%)
No headaches now- but had migraine in the past	0.9
No headaches but head discomfort (local slangs)	0.8
No headaches- but retention and migration of fluid down the scalp	0.8
No headaches- vertex pain	0.8
No headaches- head paresthesia	0.5
Normal ordinary headaches	0.4

DISCUSSION

A recent 2020 study by Viena et al showed that migraineurs used terms like cervical pain, tension headache and sinusitis for describing their symptoms.⁵ Only 8% of general practitioners and 35 % of specialists who were consulted for migraine formulated the correct diagnosis.⁵ Another study by Diamond et al showed sinusitis as the most frequent misdiagnosis given to patients with migraine.⁶ Other studies have also highlighted that sinus headache is one of the most commonly reported terms used in combination with a migraine diagnosis and most patients presenting with a sinus headache may not actually have a sinusitis associated headache.^{7,8}

This 5-year study proves that a sound knowledge about local migraine synonyms and local slangs are important to elicit history of migraine in the past. Assuming no history of headache in the past from patients may lead to delayed or wrong diagnosis of patients. Many patients do not consider headache as a disease entity and may not report or observe its characteristics unless it is the classical migraine with or without aura presentation. The diagnoses as told to them by their first contact medical practitioner in their life or an elderly person in the family sticks forever and these patients and family members continue to attribute it to coexisting disorders. This study shows that, a direct question like, do you get headaches or had headaches in the past does not reveal migraine in nearly 18% of patients in this part of India. These findings are based on how patients look at headache/migraine and hence determines how they will present or describe their symptoms to clinician. These findings do not indicate a differential diagnosis for migraine, but patient made synonyms for headache or migraine. Moreover, they may use local slangs to describe symptoms and what they attribute their headache to (For e.g., less blood in body for anaemia and low pressure to vertigo/ dizziness of vestibular migraine). Many patients have systemic disorders coexisting with migraine but patient attribute the headache to the systemic disorders rather than to migraine. The pointers that will help clinch the diagnosis of migraine are listed in Table 5.

Table 5: Diagnostic pointers of migraine.

S. no.	Questions
1	Asking for any head discomfort /throbbing /pain along with any other illnesses in the past as a question if patients say no history of migraine/headache in the past
2	Family history of headaches/migraine
3	Consider episodic syndromes/vestibular migraine in atypical migraine symptoms
4	Association with triggers and increase with increase in triggers
5	Recurrent stereotypical symptoms
6	Fixed frequency for symptoms

Limitations

This observational study has certain limitations. Synonyms have not been documented or validated by experts in the past. No male family members were questioned but experience shows that they too have the same synonym thinking in our society of highly literate people with nearly 100% literacy. The synonyms and local terminologies and slangs can vary in different parts of India and rest of the world, so what has been documented in this study may not be the same in other parts of the world.

This study shows that migraine prevalence will increase much more than currently documented figures, if migraine synonyms are included in the headache questionnaire. This is the first study in the literature to have documented synonyms to diagnose migraine in the past. This study gives the pointers which need to be included in detailed questionnaires on headache or migraine.

CONCLUSION

To diagnose migraine and its subtypes, 2 (aura) to 5 (without aura) past episodes are mandatory. This study proves that a sound knowledge about local migraine synonyms and slangs are important to elicit past history of migraine. Headache epidemiological studies can be flawed if only one leading question like do you get headaches/suffered from headache in the past is asked. This study shows that migraine prevalence will increase much more than currently documented figures, if migraine synonyms are included in the headache questionnaire.

ACKNOWLEDGEMENTS

Author would like to thank the staff of the clinics and hospital for their support, cooperation in carrying out this study.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Rai NK, Bitswa R, Singh R, Pakhre AP, Parauha DS. Factors associated with delayed diagnosis of migraine: A hospital-based cross-sectional study. *J Family Med Prim Care*. 2019;8:1925-30.
2. Francis MV. Brief migraine episodes in children and adolescents-a modification to International Headache Society pediatric migraine (without aura) diagnostic criteria. *Springerplus*. 2013;2(1):77.
3. Francis MV. Atypical Migraine in Clinical Practice: Are We Missing It? *Ann Indian Acad Neurol*. 2022;25(3):347-9.
4. Headache Classification Committee of the International Headache Society (IHS) The International Classification of Headache Disorders, 3rd edition. *Cephalalgia*. 2018;38(1):1-211.
5. Viana M, Khaliq F, Zecca C, Figuerola MDL, Sances G, Di Piero V, et al. Poor patient awareness and frequent misdiagnosis of migraine: findings from a large transcontinental cohort. *Eur J Neurol*. 2020;27(3):536-41.
6. Diamond ML. The role of concomitant headache types and non-headache co-morbidities in the underdiagnosis of migraine. *Neurology*. 2002;58(9 Suppl 6):S3-9.
7. Mehle ME, Kremer PS. Sinus CT scan findings in "sinus headache" migraineurs. *Headache*. 2008;48(1):67-71.
8. Al-Hashel JY, Ahmed SF, Alroughani R, Goadsby PJ. Migraine misdiagnosis as a sinusitis, a delay that can last for many years. *J Headache Pain*. 2013;14(1):9.

Cite this article as: Francis MV. Migraine synonyms in South Indian coastal population: a retrospective study. *Int J Res Med Sci* 2023;11:1277-80.