

The "IHS" Classification (1988, 2004) – Contributions, Limitations and Suggestions



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Abstract

The first 'International Classification of Headache Disorders' by The International Headache Society (1988)⁽¹⁾ was a major landmark document. It helped develop a common language for understanding headaches and advanced research in this neglected field. It was found to be useful, but because it was complex and cumbersome, it remained underutilised in practice. An evidence-based revised second edition was launched in 2004⁽²⁾. This article analyses the Contributions and Limitations of this Classification. The important changes that pertain to 'Migraine' in the revised 2004 Classification have been listed. It is hoped that this Classification will be used more often in practice not only by Neurologists but by all who see headache patients in their routine practice.

Introduction

Classifications may seem complex and cumbersome but they are essential to make order out of chaos. A consistent classification system, which employs a set of scientifically derived diagnostic criteria induces comparable uniformity in clinical observations and conclusions. And so it is with headache diagnosis too!

Before early attempts at Classification, the taxonomy of headache was not uniform and there were no diagnostic criteria. In 1962, an Ad Hoc committee of the National Institutes of Health produced a classification of headache disorders which at that time represented a major step forward. Unfortunately its definitions were open to differing interpretations. At around the same time, there were rapid advances in the understanding of the biologic basis for primary headaches. So in 1985, the International Headache Society (IHS) formed a Headache Classification Committee under the Chairmanship of Prof. Jes Olesen and in 1988 published the First 'International Classification of Headache Disorders' which included specific diagnostic criteria for all headache disorders⁽¹⁾.

This Classification proved to be an enormous advance, promoted studies of the epidemiology of headache and facilitated drug trials which have formed the basis of current treatment guidelines. It withstood the test of time and was found to be particularly useful in headache research. Since the first edition was based largely upon personal opinions and general consensus, the IHS in 2004, brought out an evidence-based revision of the earlier classification and this is now popular as The International Classification of Headache Disorder 2nd Edition (ICHD-2)⁽²⁾. It provides operational diagnostic criteria for all headache types and has become the standard for headache diagnosis and clinical research. It has now been accepted by the WHO and has been used in the International Classification of Diseases 10 (ICD 10). It is imperative today, for any publication on the subject of headache to compulsorily use ICHD-2. It is therefore important for all physicians who see headache patients to become familiar with the revised classification and the criteria, as this will in future be the standard reference document for headache diagnosis, treatment and research. Unfortunately even 20 years later, most of us are still not using this Classification!

The revised 2004 Classification has 14 chapters. There are four

chapters for primary headaches, eight for secondary headaches and two for cranial neuralgias, central and primary facial pain and other headache sub-types. The second edition identifies 45 primary and 120 secondary headache types and subtypes, and includes 29 causes of cranial neuralgias and central causes of facial pain⁽³⁾. Within each group, diagnoses are arranged in a hierarchical system using upto 4 digits. In general practice, for instance, doctors can classify to the first or second digit, whereas in specialist practice, the third and sometimes the fourth digit can be used. The outline of this Classification is given below (Table 1)⁽²⁾ and the Classification is also available online at www.i-h-s.org.

Revisions in ICHD-2

There are many interesting changes in ICHD-2 (2004) and there is in addition an extensive appendix, which describes a number of disorders that need validation and proposes a few alternative criteria that can be tested. There are major additions to both Primary Headaches and Secondary Headaches. (Table 2)⁽²⁾. Some diagnoses have been moved to other sections and some others have been renamed (Table 3)² reflecting changes in our perception of their underlying pathophysiology. All secondary headaches are now described as 'attributed to' instead of 'associated with'. The Appendix includes headache disorders for which there is limited evidence. It is the hope that the entities included in the appendix will be useful for future nosographic and epidemiologic research. The ICHD-2 is therefore a result of the advances in the headache field over the last two decades.

Since this is a Special issue on Migraine, this article will detail only the changes to the 'Migraine' group in the revised classification. Changes to the rest of the Classification will be beyond the scope of this article.

The Migraine group has been expanded to include many new entities. Under the types of Migraine with Aura a new entity of typical aura with non-migraine headache (1.2.2) has been added. Following recent advances in the genetics of migraine, hemiplegic migraine has now been subdivided into Familial (1.2.4) and Sporadic hemiplegic migraine (1.2.5). Basilar migraine has now been renamed basilar-type migraine (1.2.6). Amongst the childhood periodic syndromes, cyclic vomiting syndrome (1.3.1) and abdominal migraine (1.3.2) have been included while alternating hemiplegia of childhood has been moved to the appendix. In terms of duration of the headache and location of the pain, the criteria for pediatric migraine has been modified.

Under the heading complications of migraine (1.5), chronic migraine (1.5.1), persistent aura without infarction (1.5.3) and migraine – triggered seizure (1.5.5) are new inclusions. There are

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Table 1 : Revised IHS Classification of Headache – ICHD2 (2004) ⁽²⁾

A. Primary headache disorders	
1. Migraine	2.4 Probable tension-type headache
1.1 Migraine without aura	2.4.1 Probable infrequent episodic tension type headache
1.2 Migraine with aura	2.4.2 Probable frequent episodic tension type headache
1.2.1 Typical aura with migraine headache	2.4.3 Probable chronic tension-type headache
1.2.2 Typical aura with non-migraine headache	3. Cluster headache and other trigeminal autonomic cephalgias
1.2.3 Typical aura without headache	3.1 Cluster headache
1.2.4 Familial hemiplegic migraine (FHM)	3.1.1 Episodic cluster headache
1.2.5 Sporadic hemiplegic migraine	3.1.2 Chronic cluster headache
1.2.6 Basilar-type migraine	3.2 Paroxysmal hemicrania
1.3 Childhood periodic syndromes that are commonly precursors of migraine	3.2.1 Episodic paroxysmal hemicrania
1.3.1 Cyclic vomiting	3.2.2 Chronic paroxysmal hemicrania (CPH)
1.3.2 Abdominal migraine	3.3 Short-lasting Unilateral Neuralgiform headache attacks with conjunctival injection and Tearing (SUNCT)
1.3.3 Benign paroxysmal vertigo of childhood	3.4 Probable trigeminal autonomic cephalgia
1.4 Retinal migraine	3.4.1 Probable cluster headache
1.5 Complications of migraine	3.4.2 Probable paroxysmal hemicrania
1.5.1 Chronic migraine	3.4.3 Probable SUNCT
1.5.2 Status migrainosus	4. Other primary headaches
1.5.3 Persistent aura without infraction	4.1 Primary stabbing headache
1.5.4 Migrainous infraction	4.2 Primary cough headache
1.5.5 Migraine-triggered seizure	4.3 Primary exertional headache
1.6 Probable migraine	4.4 Primary headache associated with sexual activity
1.6.1 Probable migraine without aura	4.4.1 Preorgasmic headache
1.6.2 Probable migraine with aura	4.4.2 Orgasmic headache
1.6.5 Probable chronic migraine	4.5 Hypnic headache
2. Tension-type headache (TTH)	4.6 Primary thunderclap headache
2.1 Infrequent episodic tension-type headache	4.7 Hemicrania continua
2.1.1 Infrequent episodic tension-type headache associated with pericranial tenderness	4.8 New daily-persistent headache (NDPH)
2.1.2 Infrequent episodic tension-type headache not associated with pericranial tenderness	B. Secondary headache disorders
2.2 Frequent episodic tension-type headache	5. Headache attributed to head and/or neck trauma
2.2.1 Frequent episodic tension-type headache associated with pericranial tenderness	6. Headache attributed to cranial or cervical vascular disorder
2.2.2 Frequent episodic tension-type headache not associated with pericranial tenderness	7. Headache attributed to non-vascular intracranial disorder
2.3 Chronic tension-type headache	8. Headache attributed to a substance or its withdrawal
2.3.1 Chronic tension-type headache associated with pericranial tenderness	9. Headache attributed to infection
2.3.2 Chronic tension-type headache not associated with pericranial tenderness	10. Headache attributed to disorder of homeoeostasis
	11. Headache or facial pain attributed to disorder of cranium, neck, eyes, ears, nose, sinuses, teeth, mouth or other facial or cranial structures
	12. Headache attributed to psychiatric disorder
	13. Cranial neuralgias and central causes of facial pain
	14. Other headache, cranial neuralgia central or primary facial pain.

Table 2 : New additions to the 'Migraine' group ⁽²⁾

- Typical aura without headache [1.2.3]
- Cyclical vomiting [1.3.1]
- Abdominal migraine [1.3.2]
- Chronic migraine [1.5.1]
- Persistent aura without infarction [1.5.3]
- Migraine-triggered seizure [1.5.5]
- Probable chronic migraine [1.6.5]

some changes in the diagnostic criteria for status migrainosus (1.5.2) and migrainous infarction(1.5.4). The criteria for chronic migraine has been modified subsequently and these have been discussed in the editorial. Section 1.6 includes headaches that closely but not completely resemble migraine and are now called probable migraine instead of migrainous disorder.

Table 3 : Migraine disorders which have been renamed in the new classification criteria ⁽²⁾

Earlier Terminology and Current Terminology

- Hemiplegic migraine - Familial hemiplegic migraine [1.2.4] and Sporadic hemiplegic migraine [1.2.5]
- Basilar migraine - Basilar-type migraine [1.2.6]
- Migrainous disorder - Probable migraine without and with aura [1.6.1., 1.6.2]

Contributions of the Classification

The 1988 monograph 'Classification and Diagnostic Criteria for Headache disorders, Cranial Neuralgias and Facial Pain'⁽¹⁾ by the International Headache Society was a landmark document in the headache field. It clearly defined headache disorders and increased the interest levels in migraine and other related disorders. Vague terminologies were for the first time replaced by uniform international headache language. Clinical trials

were conducted using the IHS criteria and this led to rational, evidence-based treatment strategies. The reproducibility of epidemiologic studies on primary headaches in diverse practice settings suggested that the criteria were generalizable. It was therefore a positive development that contributed to a uniform diagnostic system and led to greater focus on research in headache.

Limitations of the Classification

No doubt, the Classification has had a major positive impact but like with most Classifications, there are still some issues that need debate. There has been criticism and suggestions regarding the need for revised criteria for individual headache types. There is not much controversy regarding the secondary headaches but there are still issues in the primary headache category. Some argue that the classification criteria are too detailed and impractical for use in daily practice. Without going into the details category-wise, one may broadly state that there are some areas which need to be addressed in future revisions. The IHS Classification addresses individual headache attacks only. It does not take into account the natural history of the headache or the spectrum of headache in the person. It does not recognise the inter-relationship between migraine and tension-type headache. A consistent criticism has been that the diagnostic criteria for migraine are not applicable to children and adolescents with migraine. For most patients with chronic daily headache the classification is extremely challenging to use. Correspondingly, several revised criteria have been proposed and field-tested. There is therefore a need for future changes to address childhood headache syndromes, chronic headaches, menstrual migraine and headaches with overlapping features.

Suggestions for Future Classifications

The difficulty in using the Classification is largely because of atypical episodes and recall bias. This apart, there may be a genuine problem using the Classification at different levels of practice in developing countries (where 80 per cent of the world population lives !). In many areas of Asia and Africa, other pressing health priorities confront the clinician, literacy levels among patients are low, clinics are overcrowded and there is less importance given to the functional quality of life. In these settings, even neurologists might find it a dilemma to use the Classification.

The educated proactive migraineur in developed countries, who maintains a headache diary definitely contributes to the ease with which doctors can use the Classification in the Western world.

There are many additional reasons why this classification is not easy to use in India.⁽⁴⁾ Headache as a sub-speciality has still not caught on. Clinics are overcrowded, there are major problems like stroke and epilepsy that force headache medicine into the back-seat. Not all patients are literate, recall is poor, headache diaries are not maintained. Most clinicians find that the classification is time consuming to use and the benefit obtained is not proportionate as it is not a guide to specific treatment. We need a more user- friendly version.

Conclusion

The IHS classification has contributed positively to progress in the headache field. It is now universally employed and is a standard document to be followed for publication in the headache field. The present classification does have certain drawbacks but it is only through feedback, opinions and arguments that future editions of the Classification will be more complete and practically relevant. So it is up to all of us to use it and produce evidence pertaining to difficulties using the classification. A shorter, more portable classification that employs a more comprehensive clinic-based approach would of course be a great improvement. But given the heterogeneity of the headache field and the myriad clinical presentations, until the day when we will have biological markers, I wonder if it will be possible to have THAT perfect classification which satisfies clinicians and researchers alike !

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