

CLINICAL FEATURES OF MIGRAINE IN MALAYSIANS

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SUMMARY

This is a report of clinical features of migraine in Malaysians. Seventeen migraineurs were studied with respect to age, sex, length of disease, headache, aura, nausea, frequency, remission, precipitating factors, relieving factors, family history, coexisting symptoms, coexisting disease, and type of migraine. Similarities and differences between Malaysian and Caucasian migraineurs are discussed.

INTRODUCTION

Migraine is a widespread disease which has been extensively studied. However there is a lack of reports from Malaysia. This paper is a report of clinical features in 17 Malaysian migraineurs.

MATERIALS AND METHODS

This report is based on a personal series of the first 17 consecutive migraineurs who attended the Neurology Clinic of the Universiti Kebangsaan Malaysia situated at the General Hospital, Kuala Lumpur.

Information was obtained from each patient by personal interview at the initial consultation. It consisted of personal particulars and a detailed history of the disease, especially with respect to

headache, aura, nausea, length of illness, precipitating factors, relieving factors, family history and coexisting disease. Physical examination was performed on all patients.

The criteria for diagnosis of migraine in all 17 patients was recurrent headaches separated by pain-free intervals, with at least 2 of the following 4 symptoms: nausea, visual aura, unilateral headache and heredity, that is migraine in parents or siblings.¹

RESULTS

The number of consultations for each of the 17 patients ranged from 3 to 9. The length of disease ranged from 4 months to 30 years, with a mean of 6 years and a median of 3 years.

The age at presentation ranged from 16 years to 58 years, with a mean of 34 years and a median of 32 years. Patients were quite evenly distributed among the decades between 10 and 60 years. Children were absent from this study because hospital policy precluded them from attending this clinic. Females presented at a younger age than males; the mean age was 27 years versus 42 years. The sex distribution was almost equal, with 9 females and 8 males.

The age of onset of disease ranged from 5 years to 56 years with a mean and median of 28 years. Each of the decades was represented, but in most patients the disease began between the ages of 10 and 40 years. Females had a younger onset than males; the mean age was 21 years versus 35 years.

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Intensity of headache was graded as severe, moderate or mild. Severe pain denoted incapacitating headache that prevented one from working; moderate pain denoted annoying headache that made it difficult to carry out ordinary duties; and mild pain denoted bothersome headache that permitted work with no difficulty. Of the 17 patients, 10, 6, and 1 had severe, moderate and mild headache, respectively. In 7 patients there was variability in the intensity of headache. The character of headache was described as dull in 10 patients, sharp in 4, and throbbing in 3.

Site of pain in each of the 17 patients was divided into bilateral headache, unilateral headache, or predominantly unilateral headache; there were 7, 5, and 5 patients, respectively. In the latter 10 patients, the lateralization was left-sided in 5 patients and right-sided in 5 patients. Of these 10 patients, one had pain confined only to the right side, and another had pain confined only to the left side. The site or sites of maximum intensity of pain in 17 patients were occipital (8 patients), temporal (6), frontal (4), periorbital (4), nuchal (3), and parietal (3).

The duration of an attack of migraine ranged from 2 hours to 72 hours, with a mean of 18 hours and a median of 12 hours. The frequency of migraine attacks ranged from 6 per day to once in 3 months, with a mean of 2 per week and a median of 1 per week. Variability of frequency of headache was experienced by 9 out of 17 patients, either spontaneously or produced by medication.

Precipitating factors for migraine attacks were present in 13 of the 17 patients. Among the 13 patients, the majority had more than one precipitant, and one patient had as many as 6 precipitants. The precipitating factors were hot weather (6 patients), fatigue (4), premenstrual (3), menstruation (3), reading (3), worry (2), hunger (2), crowds, lack of sleep, rainy weather, and drinking tea.

Relieving factors were present in 14 of the 17 patients. Among the 14 patients, some found relief with more than one factor. The relieving factors were paracetamol (9 patients), ergotamine (3), other analgesics (4), vomiting (3), rest (2), and sleep.

A family history of migraine was present in 5 out of 17 patients. Among the 5 patients, some had more than one family member affected. The

relatives affected were mother (3 patients), sister (3), father and brother. Apart from migraine, other family histories found were non-migrainous headache, epilepsy and brain tumour.

Other clinical features were present. Nausea was found in 11 patients of which 9 had vomiting. Visual aura was found in 6 patients, consisting of teichopsia (5 patients), scotomata (4), and fortification spectra (3). Other clinical features were vertigo (12), tinnitus (4), lethargy (4), abdominal pain (3), insomnia (3), obesity (3), drowsiness (2), fainting (2), anxiety (2), dyspnoea (2), palpitation (2), paraesthesia, leg cramp, frequency of micturition, postural hypotension, temple tenderness, high myopia, physiological goitre and ear wax.

Coexisting diseases were present in some patients. Idiopathic hypertension was present in 6 patients, tension headache in 4, epilepsy in 2, chronic sinusitis in 2, chronic suppurative otitis media, chronic bronchitis, pulmonary tuberculosis, myocardial infarction, and minor head injury.

The type of migraine found were common migraine (12 patients), classic migraine (4), and periodic migrainous neuralgia. In addition, some of these migraineurs had complicated migraine such as abdominal migraine (2), hemiplegic migraine, and basilar artery migraine.

DISCUSSION

The diagnostic criteria of migraine used for this study was that of Vahlquist,¹ because it was shown to be reliable.² The sex distribution was almost equal, although other studies showed a female preponderance of 3 to 2 in migraineurs over 11 years of age.^{3,4,5}

The age at presentation was typical.⁶ The age of onset of disease was also typical.^{5,7} The length of disease showed a wide range, with a relatively short median of 3 years; this relatively early presentation probably resulted from the predilection of Malaysian patients in general to go doctor-shopping.

Intensity of headache varied widely among the patients, and also varied in a given patient during subsequent attacks. Saper⁸ attested to this finding. However, more than half of the patients had severe intensity. This bias was a result of consultation in a Neurology Clinic, as opposed to a General Practice.

Character of headache was throbbing in only 3 patients; in the others it was either dull or sharp.

Friedman⁷ and Saper⁸ found that throbbing or pulsatile headache occurred in the early stage of a migraine attack, but was superseded by dull aching non-throbbing discomfort.

The site of headache was typical. Hemicrania was present in 10 migraineurs, and bilateral headache in 7. Lance⁹ showed that headache was bilateral in one-third or more cases; this was particularly true of common migraine, in contradistinction to the less-common classic migraine where headache was characteristically unilateral. Of 10 patients with unilateral headache, 2 had absolutely no alteration of sidedness in all their attacks, a feature also noted by Selby and Lance¹⁰ and Friedman.¹¹ The loci of headache was found to be occipital, temporal, frontal, periorbital, nuchal and parietal; such distribution of loci was typical.⁸

The duration of migraine attack was similar to the findings of others. Saper⁸ found that it ranged from hours to 5 days. Duration tended to be longer in common migraine compared to classic migraine.

The frequency of migraine attacks varied widely among the patients, and also in a given patient in the course of time. Attacks ranged from 6 per day to once in 3 months. Lance⁹ and Graham¹² showed that frequency varied throughout the lifetime of a patient, ranging from only one attack over decades to almost daily attacks (status migrainosus). Analgesic abuse or ergotamine dependency might aggravate existing headache problem.¹³ Hypertension might induce frequent attacks.^{12,14}

Precipitating factors were identified in most patients, the majority of whom had multiple factors. They consisted of a wide range of items, similar to those found by Thrush,¹⁵ Friedman,⁷ Bille *et al*¹⁶ and Pearce.¹⁷ Unpleasant weather was one of the more common factors. Food items were uncommon compared to the Caucasian studies: in particular monosodium glutamate produced no adverse effect on migraineurs in this study despite its extensive usage in Malaysian food.

Relieving factors were identified in most patients, the relief being only partial or temporary. This was consistent with the studies of Bille *et al*¹⁶ and Ekblom *et al*.¹⁸ Paracetamol was the commonest self-prescribed analgesic used, reflecting its ubiquity over aspirin in the layman's medicine chest. Twenty percent of patients had prior experience with ergotamine, as was also found by Ekblom *et al*.¹⁸

A family history of migraine was found in 30 percent of patients. This contrasted with figures of between 60 percent to 75 percent found by others.^{5,18,19} However Dalsgaard-Nielson²⁰ obtained a range of 14 percent to 90 percent. The reason for such wide variation was that in the usual situation the diagnosis of migraine in a relative was usually made second or third hand, and was of uncertain reliability; also the prevalence of migraine was such that a diligent search through most families was likely to disclose a case.⁴

Nausea and visual aura were present in 65 percent and 35 percent, respectively, of patients. Their frequency was expected because they comprised 2 of the 4 variable characteristic features used in the definition of migraine.²¹ It also emphasized the observation that some otherwise typical cases of migraine occurred in which prodromal symptoms were absent and not in all cases did nausea and visual aura occur.²²

Lethargy was found in 24 percent of patients. As an aura of common migraine, lethargy may precede headache by hours or days.⁸ Fainting occurred in 12 percent of patients, a figure consistent with that of other workers.^{10,23,24,25} Other features present included vertigo, tinnitus, abdominal pain, insomnia, drowsiness, anxiety, dyspnoea and palpitations, but none constituted migraine equivalents.^{11,12,26,27}

Hypertension was found in 35 percent of patients. The relationship of migraine to hypertension is difficult and controversial. Early studies reported high percentages of the occurrence of migraine in hypertensive patients^{28,29} and a higher frequency of hypertension among migraine patients, particularly over the age of 50.¹⁴ However Ostfeld³⁰ and Wolff³¹ found no difference in the incidence and severity of headache in a hypertensive and control population. A highly significant association of hypertension and migraine was found in young women,³² and Ziegler *et al*³³ found a significant increase in hypertension in women with severe headache. However no correlation was found between headache and hypertension.^{34,35}

Epilepsy was present in 12 percent of patients. The relationship between migraine and epilepsy is still controversial. However studies had indicated a higher incidence of epilepsy in unselected migraineurs than in the general population, especially when associated with a family history of epilepsy.^{36,37}

Common migraine, classic migraine and periodic migrainous neuralgia constituted 70 percent, 24 percent and 6 percent, respectively, of the 17 patients in this study. This distribution was similar to the findings of Friedman ⁷ and Saper. ⁸ However not all agree that periodic migrainous neuralgia should be included as a variety of migraine, and the relationship remains conjectural. Complicated migraine occurred in 24 percent of patients; in one patient the deficit was permanent, ^{38,39} while in another patient basilar artery migraine was found. ⁴⁰

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