



Research Article

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Factors associated with chronification of migraine headache in a subset of patients in a general neurology clinic.

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ABSTRACT

Episodic migraine headache if left untreated can transform into a chronic migraine, a process called “Migraine Chronification”. Patients presenting with headache to a neurology clinic were screened for migraine headache. One hundred and eighty patients fulfilled the criteria of migraine, 31 patients fulfilled criteria of chronic migraine headache (17%). Factors associated with “” migraine chronification found in this group of patients included: female sex, obesity, high baseline headache frequency and the presence of cutaneous allodynia ipsilateral to the headache onset.

Key words: *Chronic migraine, migraine chronification.*

INTRODUCTION

Chronic migraine is a headache (tension-type like or migraine-like) on fifteen or more days of the month, for three consecutive months [1-2]. It is believed by the patient to be a migraine at the onset, and it responds to a triptan or to an ergot derivative². 2.5% of episodic migraine sufferers transform to a chronic migraine each year; a process termed “Migraine Chronification” [3-5]

AIM OF THE STUDY

This study’s aim was to find the comorbid features associated with migraine chronification in a general neurology clinic headache population.

MATERIALS AND METHODS

Patients attending the neurology clinic complaining of a headache over the preceding four months’ period, from April 1st 2015 till July 31st 2015, were given a ten questions questionnaire to fill up right after their clinic’s visit. Two hundred and twenty-one patients completed the survey. One hundred and eighty patients fulfilled the criteria of a migraine headache, as defined by the international headache society in the international classification of headache disorders, 3rd edition². Thirty-one patients of them fulfilled the chronic migraine criteria. Variables collected from patients are listed in (Table 1). Five patients were missing data and were excluded from the analysis. Twenty-six patients were included in this study. Variables collected during the study are listed in (Table 2).

Table 1. Variables collected from the patients enrolled in the study:

Sex
Body mass index(BMI)
Years since the headache started.
Number of headache days per month
Number of hours slept per night
Use of Abortive therapy
Use of prophylactic therapy
Number of minutes spent doing physical activity per week
Number of meals per day
Cutaneous allodynia ipsilateral to a migraine headache

Table 2. Chronic migraine diagnostic criteria (from reference 2)

A. Headache (tension-type-like and/or migraine-like) on ≥ 15 days per month for >3 months and fulfilling criteria B and C
B. Occurring in a patient who has had at least five attacks fulfilling criteria B-D for 1.1 Migraine without aura and/or criteria B and C for 1.2 Migraine with aura
C. On >8 days per month for >3 months, fulfilling any of the following 3: <ol style="list-style-type: none"> 1. Migraine without aura criteria 2. Migraine with aura criteria 3. believed by the patient to be migraine at onset and relieved by a triptan or ergot derivative
D. Not better accounted for by another ICHD-3 diagnosis.

Statistical analysis

IBM-SSPS 21 was used to collect data and to analyze them.

RESULTS

Total number of the sample was twenty-six patients: Female 77% and Male 23%. Body mass index(BMI): seven patients (27%) had a BMI above 30. Eight out of twenty-six patients (30%) slept less than six hours per night. Use of abortive therapy: seven patients (27%) used none, and eight patients (30%) started using abortive therapy after an hour or more of the headache onset. Use of prophylactic treatment: Twenty-four patients (92%) used none. Physical activity: thirteen out of twenty-six patients (50%) reported no physical activity. The other thirteen patients reported walking between sixty minutes to six hundred minutes a week. No another form of physical activity was reported. Thirteen patients out of twenty-six (50%) reported eating three regular meals per day, and the other thirteen patients ate two meals per day. Twenty-two patients out of twenty-six (85%) reported cutaneous allodynia ipsilateral to the headache onset. Twenty-four patients (92%) reported a headache on twenty-one days a month or more over the preceding four months.

DISCUSSION

Chronification” is a term that is associated with the transformation of an episodic headache to a chronic one⁴. Factors associated with chronification of an episodic migraine headache reported in the literature included: obesity defined as a BMI ≥ 30 , snoring and sleep apnea, head or neck injury, high baseline headache frequency, overuse of abortive medications, major life events, presence of cutaneous allodynia, female sex, and lower socioeconomic status, among others [4-7].

In this small sample of a general neurology clinic patients’, 27% were obese, fifty percent are leading an entirely sedentary lifestyle, with no exercise. The majority were females, and 85% of the total sample had cutaneous allodynia ipsilateral to the headache onset. Over one-half of the study patients did not use an abortive medication or started using it after one hour of the headache onset. A significant feature of this study population was the lack of a prophylactic therapy in 92% of patients. Use of abortive therapy, especially non-steroidal anti-inflammatory drugs (NSAIDs), was low. Use of NSAIDs might increase the risk of chronification in patients with ten to fourteen headache days a month [6-8]. Fear of pain medications’ side effects, including kidney dysfunction, was the main reason selected by the patients for not taking abortive therapy.

CONCLUSION

Factors associated with chronification of episodic migraine found in this study included: female sex, obesity, high baseline headache frequency and the presence of cutaneous allodynia ipsilateral to the headache onset.

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