ORIGINAL ARTICLE

Sociodemographic characteristics of a cohort of patients with chronic migraine from a health district in Asturias

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Demographic data; ICHD-IIIβ; Chronic migraine; Episodic migraine; Occupational status; Educational level

Abstract

Introduction: Chronic migraine (CM), with or without medication overuse, is a common condition in the general population. It has traditionally been assumed that suffering CM has an impact on a patient’s socio-occupational and educational level. Our goal was to analyse these characteristics in a cohort of patients with CM and compare them to the general population.

Material and methods: We used a telephone interview and an ad hoc questionnaire to record and analyse the sociodemographic characteristics of 150 patients with a diagnosis of CM according to the criteria of the International Headache Classification. Results were compared to those obtained by the Third Health Survey of Asturias, conducted in 2012.

Results: Of the 150 patients, 142 were women (95%). Married patients accounted for 59.3% of the total interviewees, while 22% were single, 12.6% divorced, and 6% were widowed. Regarding educational level, we found that 73% of our patients had completed secondary or higher education and 25% had completed only primary education. Sixty per cent of these patients are occupationally active, while the rest are not actively employed. Overall, these figures do not differ from those published by the Third Health Survey of Asturias.

Discussion: 'The classic idea that CM has a negative impact on patients’ educational, personal, and occupational situations was not confirmed in our series. In fact, most patients with CM reported a medium-high educational level and a good socio-occupational status. However, since our series includes only CM patients attended in a specialist clinic, our results are not necessarily applicable to all patients with CM.

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Introduction

Chronic migraine (CM) is the most incapacitating type of migraine. The annual rate of progression to CM is estimated at 2.5%. According to the criteria of the International Classification of Headache Disorders (ICHD-IIIβ), CM is a type of headache presenting in patients with a history of migraine and no medication overuse and occurring on at least 15 days per month, for at least 3 months, with the features of migraine headache on at least 8 days per month.2

Although the aetiology of CM is unclear, certain risk factors are statistically associated with headache chronification. Among those considered non-modifiable are such sociodemographic characteristics as sex, race, marital status, and education level.3,4 Considering these factors, the classic profile of a CM patient is a middle-aged woman with a low level of education.

Migraine pain may appear at early ages (even during childhood or adolescence), limiting patients’ educational or professional development. Studying and analysing these factors is therefore of particular importance because of the socio-economic and personal impact that CM can have.3,4

Following this line of thinking, we conducted a descriptive analysis of a cohort of patients with CM in a health district in Asturias.

Our study compares CM patients with the general Asturian population, of which 65% had not completed secondary education and over 20% were unemployed.

Patients and methods

Ad hoc telephone interviews allowed us to build a cohort of 150 patients who had previously been diagnosed with CM according to ICHD-IIIβ criteria at the headache unit in the neurology department of the Hospital Universitario Central de Asturias.

The survey took place during the first half of 2014 and was carried out by third- and fourth-year neurology residents who had been trained at the headache unit. They systematically registered such patient data as marital status, education level, and occupational status. Our data was descriptively compared with data from the Third Health Survey of Asturias.5 In this 2012 survey, detailed sociodemographic data were collected on 2100 residents of Asturias.

Results

Demographic data

The majority (142; 95%) of the CM patients included in this study were women. Mean age was 45 years (range, 17-74).

Marital status

Regarding marital status, 89 patients (59.3%) were married, 33 (22%) single, 19 (12.6%) divorced or separated, and 9 (6%)
widowed. According to data from the Third Health Survey of the region, 51.3% of Asturians were married, 30% single, 6.7% divorced or separated, and 12% widowed. Due to the high percentage of women in our sample, we analysed them separately and found that 59.9% were married, 19.3% single, 6.3% widowed, and 11.97% divorced or separated. According to the results of the Third Health Survey for the same subgroup, in 2012 48.8% of women in Asturias were married, 24.8% were single, 18.9% widowed, and 7.4% divorced or separated.

**Education level**

A total of 38 (25.3%) patients had finished primary school; 54 (36%) had completed secondary school, and 55 (36.7%) had attained university studies. In Asturias in general, 49% of those surveyed had completed primary school, 24% had secondary education, and 19.4% had finished university.

Considering the subgroup of women with CM in our sample, 26.1% had finished primary school, 37.3% had a secondary education, and 34.5% had concluded university studies, whereas according to the health survey, 36.8% of Asturian women had completed primary education, 42.9% had finished secondary school, and 20.3% had obtained university studies.

**Employment status**

Ninety (60%) of the CM patients interviewed were employed, 14 (9.3%) unemployed, 9 (6%) retired, 2 (1.3%) students, and 32 (21.3%) did unpaid domestic work.

Of the Asturians interviewed for the Third Health Survey, 33% were employed, 19% unemployed, 29% retired, 7% students, and 10% did unpaid domestic work.

Breaking down by age, we find that 33.3% of CM patients from 16 to 19 years of age were unemployed, while in the general Asturian population that figure was 44.9%. For people aged 20 to 24, 50% of CM patients and 47.4% of the general Asturian population were unemployed, and from 25 to 54 years of age, 26% of CM patients and 21% of the general population were unemployed. Lastly, 55.5% of CM patients aged 55 and older were unemployed vs 13.8% of the general population for that age range.

Regarding the subgroup of women, 59.9% of our female patients were employed, 9.9% unemployed, and 22.5% did unpaid domestic work. For the same subgroup in the general Asturian population, 29.7% were employed, 19% unemployed, and 19% did unpaid domestic work (Fig. 1).

**Discussion**

Migraine is a complex pathology which requires a multidisciplinary approach. Multiple risk factors have been shown to be involved in the progression and chronicity of migraine. Early detection and management of these factors, when possible, is of vital importance to effectively treat CM.

A number of studies have examined the association between such non-modifiable risk factors as patient sociodemographic status and the progression and transformation of migraine. All of them describe a link between CM and the following factors: female sex, low socio-cultural level, low economic status, and being single or divorced.

The present study analyses the sociodemographic characteristics of a large number of adult patients matching the diagnostic criteria for CM who visited a headache unit in our setting. The type of patient attending our headache unit coincides with the classic picture of a CM patient as a middle-aged woman. However, contrary to the typical picture of patients with this disorder having a low level of education, in our sample a large majority had secondary studies or higher. In fact, the percentage was higher in our sample than in the general population of Asturias.

According to some articles, a low socio-economic level and unemployment are not non-modifiable risk factors but rather risk factors which are difficult to modify. Currently, the unemployment rate in Spain is among the highest in the European Union. Nonetheless, a detailed analysis of our cohort by age and sex shows that: (1) for all age groups, the employment rate is higher in our sample than in the general population, and (2) the employment rate among women in our sample doubles that of the general Asturian population.

Several studies of the epidemiological characteristics of patients with migraine have found that this disorder is more likely to become chronic if the patient was previously married, that is, currently divorced, separated, or widowed. In our sample, though, the tendency is the opposite. Also, the percentage of patients who were married, single, or divorced is comparable to that of the control population.

In this study we provide data about the marital status, education level, and employment status of a cohort of patients with CM and compare them to data from a health survey including a sample representative of the general population. It would have been interesting to statistically analyse any potential differences between the distributions
of each variable evaluated in both samples, but we do not have access to the raw data from the Third Health Survey.

Over the years, many authors have supported the necessity for educational campaigns about CM aimed at the general population because of the negative impact of this disabling condition on patients’ quality of life. The campaign to raise awareness of this disease has resulted in the creation of specialist clinics, with professionals trained in CM patient management. The patient sample analysed in this study came from a clinic specialising in refractory migraine. The greater sociocultural status and employment rate observed in this sample may be linked to these patients’ higher cultural background, which resulted in greater resources to find solutions to a specific problem (in this case, headache). Seeking solutions in a highly specialised clinic normally leads to improvements in patients’ quality of life and sociocultural level, which may also partially explain the results of our descriptive study. In addition, the majority of studies analysing the relationship between CM and sociodemographic variables have been conducted in North America, so it may not be possible to extrapolate their results to our setting. Future studies should compare the sociodemographic characteristics of patients who go to specialised clinics and those who do not.

Conflicts of interest

The authors have no conflicts of interest to declare.

References