Migraine Burden in an Albanian Patient's Cohort

**Corresponding Author:**
Dr. Diana Naco,
Neurologist, Ambulatory Polyclinics No. 9, Tirana - Albania

**Submitting Author:**
Dr. Gentian Vyshka,
Lecturer, Biomedical and Experimental Department, Faculty of Medicine, University of Tirana, Rr Dibres 371 - Albania

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Author(s): Naco D, Vyshka G, Kruja J

Abstract

Purpose: To find the correlation between migraine and work ability by using the MIDAS questionnaire.

Method: We studied the data of 106 migraine patients randomly presented at the Specialist's Polyclinic Nr 2 of Tirana. The diagnosis is made according ICHD II criteria (2005). The MIDAS questionnaire, Albanian variant, evaluated in a previous study (2000, MK, JK) is used. The age of patients, age of headache, gender, education and the drug treatment are used as variables of the study. The neurological examination and possibly the laboratory exams are required. The SPSS 17.0 program is applied to get the statistical data.

Results: The mean age of patients was 34.57 years old (SD 11.22). There were 83 (78.3%) female and 23 (21.7%) male. 71.7% of patients were suffering of migraine without aura. 58 patients (54.7%) had finished the high school and 23 (21.7%) the undergraduate studies. There were 38 patients (35.8%) under correct treatment and 68 (64.2%) using wrong treatment regimen. There is a statistically significant correlation between the age of disease and the treatment and between the treatment and MIDAS degree. No significant correlation between migraine form and age of patients and migraine form and gender or education is found.

Conclusion: The correct treatment of migraine is an important factor in diminishing the burden of migraine especially in the newly diagnosed patients.

Introduction

Migraine is the most common type of headache. Migraine can be divided in two major sub types: Migraines without aura and migraines with aura [1]. The prevalence of migraine is generally 12% (6% in men and 15% -18% in women). It is 2-3 times more common in women than in men. Prevalence of typical migraine beginning before age 25 years, caught between the ages of 25-55 years, a period often associated with maximal commitments in the family and at work. Epidemiological studies have documented its high prevalence and high socio-economic and personal impacts. Before puberty, the prevalence in women and men is similar, after the age of 12 years it grows much faster in women. The prevalence of women in migraines with aura and without aura tends to decline after the age of 45-50 years. The prevalence of migraine is significant in industrialized countries, regardless of culture and other socio-dynamic factors [2]. Type of genetic transmission of migraine is autosomal recessive type of information about sex, mitochondrial transmission model [3, 4]. Severity of migraine attacks can be classified by mild pain without disability, painful pain with total disability. Frequency can be moved from one attack per year in many migraine attacks. Migraine without aura: At least 5 attacks of the following criteria: Headache attacks lasting 4-72 hours (untreated or unsuccessfully treated). Headache has at least 2 of the following characteristics: unilateral localization, pulsating type, pain moderate or severe pain intensity, aggravation by or causing of routine physical activity. During headache at least one of the following signs: nausea and/or vomiting, photophobia and phonophobia. Not attributed to another disorder [1]. Migraine with aura is described as recurrent disorder manifesting in attacks of reversible focal neurological symptoms that usually develop gradually over 5-20 minutes and last for less than 60 minutes. Headache with the features of migraine without aura follows usually the aura symptoms. Childhood periodic syndromes (CPS) are commonly precursors of migraine [1].

Methods

We studied the data of 106 migraine patients randomly, in a six-month period. The MIDAS questionnaire, Albanian variant, evaluated in a previous study (2000, MK, JK) is used [5]. MIDAS questionnaire was developed for the first time by Lipton at Stewart to determine or to measure work ability in patients with migraine. MIDAS questionnaire is a simple tool, readily understandable and usable by all strata of the population. It has been tested by many studies in the world [6]. Other usable questionnaire today can mention HIT (headache Impact Test), Migraine-ACT (Migraine Assessment Currency Therapy), SF-36 (Short-Form 36 quality), and MTAQ (Migraine Therapy Assessment Questionnaire) [7]. Other tools for assessing disability are: IMPACT, PACE and FDI. All these questionnaires have the same goal: the prevention of migraine and facilitating doctor-patient
relationships in order to minimize the disability. All patients previously underwent a detailed neurological visit. Additional examinations were done to establish the diagnosis based on the criteria described above by IHS [1]. The age of patients, age of headache, gender, education and the drug treatment are used as variables of the study. The neurological examination and possibly the laboratory exams are required. Patients were asked to fill in the migraine disability assessment (MIDAS) questionnaire. The questionnaire was used to record detailed information on headache features as well as activity limitations in work, household chores, and non-work activities (social, family and leisure activities). The MIDAS score was the sum of missed work or school days, missed household chores days, and missed non-work activity days, and days at work or school plus days of household chores where productivity was reduced by half or more in the last 3 months [8].

Statistical processing was carried out by SPSS 17.0 program. Continuous variables were presented at an average value and in standard deviation. Discrete variables were presented in absolute value and in percentage. To analyze the presence of links between variables was used Kendall’s correlation coefficient tau_b. The data were presented by different types of tables and graphs. To see the differences between discrete variables was used Chi-square independence test. A p value ??? 0.05 was considered as significant.

Results

<table>
<thead>
<tr>
<th>Nr</th>
<th>TOTAL AGE</th>
<th>AGE of diseases</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>Ca</th>
<th>Cb</th>
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</thead>
<tbody>
<tr>
<td>106</td>
<td>106</td>
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<td>106</td>
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<td>106</td>
</tr>
<tr>
<td>Average</td>
<td>17.59</td>
<td>34.57</td>
<td>11.45</td>
<td>1.67</td>
<td>5.34</td>
<td>4.66</td>
<td>7.52</td>
<td>4.49</td>
<td>11.23</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>13.08</td>
<td>11.22</td>
<td>8.28</td>
<td>0.64</td>
<td>2.19</td>
<td>1.56</td>
<td>2.73</td>
<td>5.71</td>
<td>1.94</td>
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</tbody>
</table>

In total were included in the study 106 patients aged 13-58 years, mean age was 34.6 years, standard deviation 11.22. Average length of illness was 11.2 years with a standard deviation 8.28 years. 23 patients were male and 83 female.

Table nr.1: Type of diseases

Table nr.1 shows the distribution of patients according to the diagnosis of migraine. There is a predominance of migraine without aura (about 80%). The rest of the cases took migraine with aura (15%). CPS comes in the context of other migraine (5%).

Table nr.2 Presents the distribution of patients according to treatment status. It is noted that more than half of the cases diagnosed with migraine (64.2%) at the time of the visit have been without treatment or off treatment protocol.

By analyzing in particular patients’ responses for each question in the questionnaire MIDAS noted that:

a. 20.7% of respondents had had one more day full disability for work during the three months.

b. 76.4% of them had a decrease of productivity in housework and 55.5% did not do any housework.

c. 56.6% of respondents referred to the reduction in productivity at work or school half or more.

d. 69.8% of them lost their socio-cultural activities (this is the fact that a good part of the respondents (33%) have household with poor social life) [9].

Table nr.3: MIDAS score.

MIDAS grade I is 8.4%, MIDAS grade II is 28.3%, MIDAS grade III is 31.1% and MIDAS grade IV is 32% disability.

Table nr.4 In the MIDAS grade II, 43.3% of patients were untreated. In the MIDAS grade III, 66.6% of patients were untreated and in MIDAS grade IV, 79.4% of patients were untreated. The exception is MIDAS grade II have a greater number of patients with treatment than those without treatment. In total, 64% of respondents had not received adequate treatment and 73% of whom were in of the MIDAS grades III and IV.

Discussion

Due to a limited number of patients in study is difficult to draw strong conclusions correct for correlated between diagnostic tests. By accepting as valid values of p ? 0.05, during statistical analysis (Kendall’s correlation) were not observed any statistically significant correlation between migraine form and gender (Kendal's correlation coefficient = 0.043, p = 0.655). Also there was not any statistically significant correlation between migraine form and ages of patients and migraine form and ages of migraine. (Kendal's correlation coefficient = 0.001, p = 0.9). There is a statistically significant connection between treatment status and age of the disease (Kendal's correlation coefficient = 0.345, p = 0.001). The age of the disease was higher in untreated forms. Many migraine sufferers do not consult physicians for their headaches, treating their attacks with non-prescription medications [10, 11, 12].

Goals of migraine treatment include relieving pain and restoring ability to function. From an employer or
societal perspective, treatments which reduce lost time due to migraine are likely to be cost-effective [13]. There is a statistically significant correlation between gender and MIDAS degree. Migraine in women occurs in severe forms than in men. (Coefficient = 0.358 $p <0.05$) Treatment status also has a statistically significant correlation with severity of disease (coefficient = 0.224 $p <0.05$) as the most serious forms are those untreated. No significant correlation between migraine form and age of patients and migraine form and education is found. Also shows that there is a statistically significant difference between MIDAS grade and mode of treatment (Chi-square = 9.212, df = 3, $p = 0.027$).

According to the data of our study, patients are women who suffer with migraine, but the gender and age of the patient does not the correlation with form of migraine. In most cases patients come for medical visit only in severity forms, when migraine has created disability in 11 days and more. 63% of patients were in MIDAS III/IV grades. There are 73% of patients untreated, which explains the severe degree of disability [14]. According to a study 20% of the respondents answered to lost productivity at work due to migraine. Several studies have estimated lost workdays due to headache among employed migraineurs [15]. In a study [16] referred that 51% of respondents were answer that had at least 1 day where productivity at work or at school was reduced to 50% and more, with more than 75% were unable to do housework and 58% lost their social activities. We have the similar data regarding disability. In our data 20.7% of patients had 1 more day to complete inability to work, 55.5% of them were not able to do housework, and 76.4% decrease in productivity with more than 50% and 69.8% lost their social activities. 64% of patients were untreated. Severe forms of migraine occur in female patients and patients not treated regularly [17, 18]. Chronic migraine has an effect on work, school, and social functioning. Severe headache (MIDAS grade IV) disability was reported by 37.97% of people with chronic migraine and by 9.51% of those with episodic migraine: the rate was higher among females than males [19]. The database of patients is important to follow in their dynamic helps to retrieve complete and accurate data in subsequent studies.

Conclusion

Migraine is a disease that affects more women than men. The early treatment of migraine relieves severity of illness and decrease of work ability. Overall, measuring the impact of migraine is likely to aid the initial assessment of migraine, and improve treatment delivery. Research in the treatment and management of patients with migraine represent a challenge for the neurologist, in order to reduce the number of individuals who can suffer.

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Illustrations

Illustration 1

The distribution of patients according to the diagnosis of migraine. There is a predominance of migraine without aura (about 80%). The rest of the cases took migraine with aura (15%). CPS comes in the context of other migraine (5%).

Illustration 2

The distribution of patients according to treatment status. It is noted that more than half of the cases diagnosed with migraine (64.2%) at the time of the visit have been without treatment or off treatment protocol.
Illustration 3

MIDAS score. MIDAS grade I is 8.4%, MIDAS grade II is 28.3%, MIDAS grade III is 31.1% and MIDAS grade IV is 32% disability.

Illustration 4

In the MIDAS grade II, 43.3% of patients were untreated. In the MIDAS grade III, 66.6% of patients were untreated and in MIDAS grade IV, 79.4% of patients were untreated. The exception is MIDAS grade II have a greater number of patients with treatment than those without treatment.
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