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The prevalence of adult migraine in Calabria Region and its relationships with major sociodemographic characteristics and socio-economic impact of headache

Abstract Although headache is a common complaint, only few sufferers seek specific medical assistance. Migraine is one of the most frequently encountered varieties of headache. The first presentation of migraine is impaired quality of life and work disorders as a consequence of sickness. Epidemiological quantitative studies in Italy have been performed. The aim of this survey was to estimate the prevalence of migraine in adults living the Region of Calabria who were visited by general practitioners for any reason. We also analyzed the characteristics and associated demographic factors for this disorder, and analyzed costs generated by migraine. We conducted an observational, multicentre, cross-sectional study. Sample size was not predetermined. A total of 1397 patients patients were asked if they suffered headache. If they did not suffer, the doctor completed a questionnaire. Therefore, we have decided to define as possible

migraineurs those patients who only met 3 of 4 criteria used to define migraine (pain, 2 or more attacks/month, associated symptoms). The prevalence of migraine was greater in women than in men (66.8% vs. 33.2%). When we considered the number of patients diagnosed with possible migraine, the prevalence of the disorder was 35.2%. More than half of patients reduced social activities. This is mainly reflected in a loss of productivity and a increasing in indirect costs associated with the disorder. The overall prevalence of migraine in the Region of Calabria was 35.2%, which means that approximately 650 000 people suffer from this disorder. This produces a significant impact on the global social care but at same time a stimulation for the best management and improved quality of life of patients.

Key words Epidemiology • Migraine • Cost of illness

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Introduction

Despite the fact that migraine is frequent, many migraine sufferers do not consult a general practitioner (GP) for treatment. Migraineurs often treat themselves, usually with analgesics which can be bought without a prescription. In addition, most migraine sufferers know the factor which leads to their migraine and thus avoid the causes.

Lack of healthcare consultation and the low level of knowledge among non-specialists of the diagnostic criteria laid down by the International Headache Society (IHS) make it difficult to estimate the prevalence of migraine in a given population, the cost per patient and the overall cost for the population.

An epidemiological survey of 1500 inhabitants of the Republic of San Marino found a migraine prevalence of 9.3% among men and 18% among women. Recently an

Italian study has estimated the prevalence of migraine in Italy to be 11.4% of the adult population. We estimated the prevalence of migraine in adults in the Region of Calabria who were visited, for any reason, by physicians belonging to the Italian Society of General Practitioners (SIMG). In the same group, we also analyzed the characteristics and demographic factors associated with this disorder, and the costs generated by migraine. We conducted an observational, multicentre, cross-sectional study. Although migraine is not a life-threatening disease, it does cause direct healthcare costs (examination with and without instruments, treatment with anti-migraine drugs and hospitalization). It also leads to discomfort and to a lower quality of life in health-related parameters, as has been reported in numerous publications.

Materials and methods

Sample size was not predetermined. Participation in the study was proposed to general practitioners who were members of a national general practitioners society (SIMG), and the sample population consisted of all patients over 18 years of age in the lists of those practitioners who chose to participate in the study. If they did not suffer, the doctor completed a questionnaire.

The study covered all patients who were visited by general practitioners for any reason on 3 consecutive days of one week (12–17 November 2001). Patients were classified as migraineurs only if the pain had at least 2 of the following features: throbbing quality, unilaterally, moderate to severe intensity and accentuation with physical activity. Besides these features, at least 1 of the following associated symptoms had to be present: nausea, vomiting, photophobia, phonophobia, and attack duration of between 4 and 72 h. Finally, patients had to confirm the occurrence of at least 5 attacks with these features. We defined as probable migraineurs those patients who only met 3 of the 4 criteria used to define migraine (pain, associated symptoms, history of 3 attacks per

month). The number of migraineurs used to assess prevalence was obtained by adding the number of definite diagnoses to that of probable diagnoses.

Results

During the week of 12–17 November 2001, a total of 1397 subjects were interviewed. The proportion of men was 33.2%; mean age was 46.2 years (Fig. 1).

The prevalence of migraine according to age and sex was greater in women than in men. The disorder was most commonly found in the middle age range with the highest prevalence in the 30–39 year group for men and the 35–44 year group for women (Fig. 2). If we considered the number of patients diagnosed with migraine and those suffering from probable migraine, the prevalence of the disorder was 35.2%. More than half of the patients were forced to reduce their activities significantly because of headache. This is mainly reflected in loss of productivity and in the indirect costs associated with the disorder.

Headache affected all domains of daily living, including work (65.3%), social activity (49.6%) and study activity (19.4%) secondary to migraine-associated disability (Fig. 3).

The annual cost of migraine per patient in the Region of Calabria was euro 550. A more detailed analysis shows that the cost of examination was euro 55 per year. Diagnostic examination (routine laboratory tests, electroencephalography, radiography of the cranium and cervical portion of the spinal column, computed tomography and magnetic resonance imaging of the brain) cost euro 75 per year. Hospitalization (one or more days) cost euro 158 per year. On the basis of epidemiological and economic data, the total number of adult migraine sufferers in Calabria Region is over 650 000, with a total estimated cost of over euro 138 million per year.

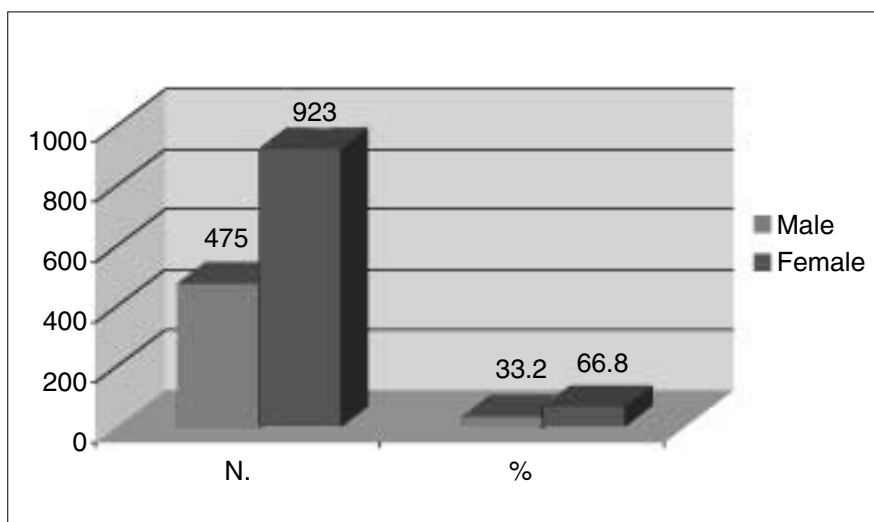


Fig. 1 Sex distribution of adults suffering of migraine

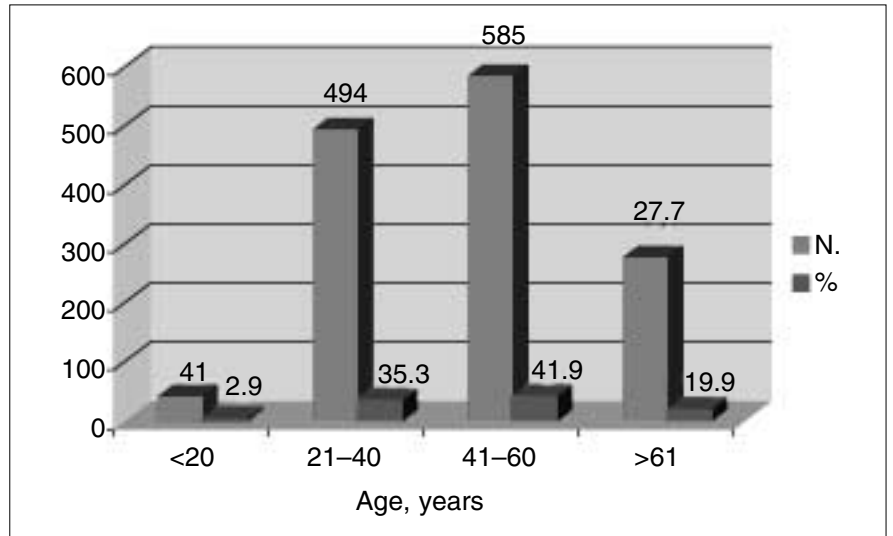


Fig. 2 Age distribution of adults suffering of migraine

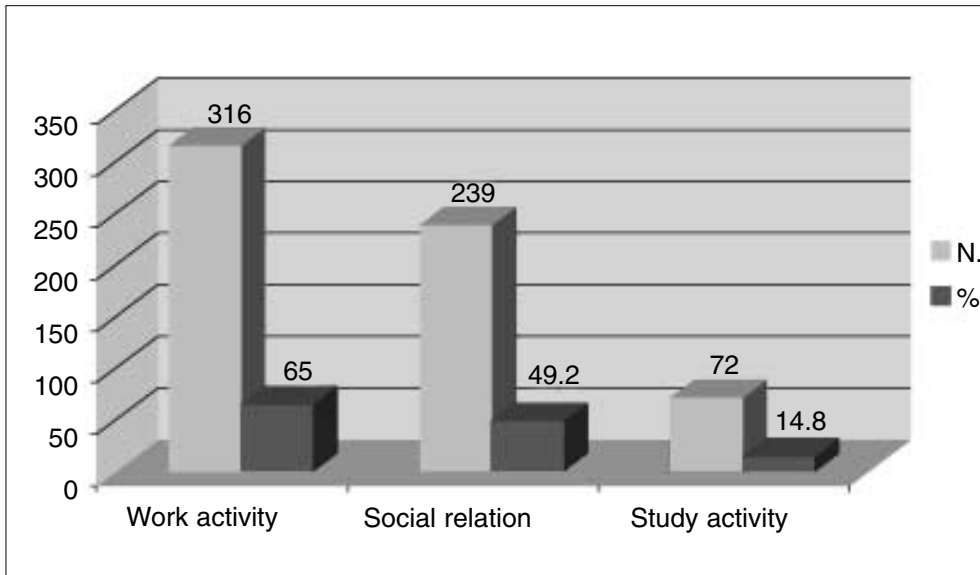


Fig. 3 Disability of adults suffering of migraine

Discussion

Our study had unavoidable methodological limitations. For example, the cost of the abuse of analgesics was not included, nor was the impact of migraine on the patients' quality of life. In addition, doctors recruited to the study were particularly sensitive to the problem of migraine during the study period, due to the object of the study itself. This may have led to over-estimates in the number of migraine sufferers. Furthermore, patients who habitually suffer from migraine may not have gone to their GP due to disappointing previous treatments or because the study period did not correspond with a migraine attack; they may have obtained treatment by other methods, or they may have resorted to self-treatment. Our study found

a 35.2% prevalence of migraine in the population considered. Headache is a frequently underestimated disorder; our study confirms that a large number of people suffer from migraine and the overall cost to the community is high.

In Calabria, the majority of drug expenditures (analgesic and anti-migraine drugs) is partly or wholly borne by the patient, and the costs of hospitalization and working days lost are significant.

Therapeutic control, based not only on pharmacological therapy but also on the integrated assistance of headache sufferers, would dramatically reduce social costs while improving the quality of life these individuals. However, it is clear that comprehensive economic evaluations of new medicines must also take account of the benefits offered to patients in terms of improved quality of life. Patients, clini-

cians, and healthcare systems influence different types of barriers to migraineurs receiving early intervention with triptan therapy. Denial, anxiety, frustration, and misperception by patients and clinicians alike are among the barriers that often make early intervention unsuccessful or impossible. Healthcare system barriers also make early intervention in the treatment of migraine difficult. In many areas, the access to or supply of triptans is inadequate, making it prob-

lematic for patients to obtain this class of drug easily. There is often continued reliance on step-care management approaches to migraine, most of which are ultimately ineffective. Continued research and education regarding the benefits of early intervention in the treatment of migraine are required. The resulting break down of many of the barriers to managing migraine will ensure that patients are properly and optimally treated.

Suggested reading

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