



Clinical history of headache, cross-referencing etiological diagnosis and the need for emergency referral, in hospitals in Rio Grande do Sul

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Introduction

The importance of headache disorders, particularly of the primary forms, is established by their distribution worldwide, their duration (the majority being life-long conditions) and their imposition of both disability and life-style restrictions among large numbers of people and represent prevalent medical issues and rank as a primary cause for neurology consultations. Nevertheless, a significant portion of individuals affected by these conditions refrains from seeking medical assistance. As a result, the symptoms progress and may eventually necessitate emergency referral. This inherent unpredictability significantly impinges upon one's quality of life and may precipitate substantial disability and anxiety, even in the absence of active migraine attacks. **Objectives**

The aim of this study is to assess the types of etiological diagnosis in patients with a clinical history of headache, based on whether or not emergency referral was required, and to present the epidemiological data regarding the age and gender of the analyzed patients.

Methods

This is a cross-sectional study involving 1,166 patients from the "Advanced Center for Neurology and Neurosurgery" (CEAN-NE), located in 14 hospitals in the states of Rio Grande do Sul and São Paulo. The statistical analysis conducted included an examination of syndromic diagnostic types in patients and whether or not emergency referrals were made during the period from April 2019 to October 2022. All patients provided informed consent for this research, and data collection adhered to the general data protection law.

Results

Describing the epidemiology of the total number of patients (1,166), it can be observed that 498 (42.7%) are female, and 668 (57.3%) are male, with a median age of 59, an average of 55, and a mode of 67. When dividing by age groups, the distribution is as follows: age 0-16: 95 (8.1%) patients, 16-31: 116 (9.9%) patients, 31-47: 178 (15.2%) patients, 47-62: 288 (24.6%) patients, 62-78: 321 (27.5%) patients, 78- 93: 157 (13.4%) patients, 93-100: 11 (0.9%) patients. Out of the total patients, 283 (24.3%) were referred for emergency care, while 883 (75.7%) were not. Regarding diagnoses, 842 (72.2%) had a metabolic cause as the etiological diagnosis, of which 748 (88.8%) did not require emergency referral, while 94 (11.2%) did. 274 (23.4%) had a vascular cause, with 123 (44.8%) being referred for emergency care and 151 (55.2%) for non-emergency care. Additionally, 50 (4.4%) had a traumatic cause, with 12 (24%) requiring emergency referral, while 38 (76%) did not. This study revealed that the majority of individuals affected by headaches in the sample were male. Patients with older age tend to experience more headache symptoms, and vascular causes are notably more severe, often requiring more emergency referrals compared to traumatic and metabolic causes.

Conclusion

In the Emergency Department (ED), as elsewhere, migraine is often under-diagnosed and under-treated when it is diagnosed. The result is likely to be failure of treatment. Particular attention to diagnosis is needed in ED patients with acute headache, since there is a higher probability of secondary headache due to underlying pathologies. Strategies for managing migraine triggers include keeping a headache diary, focusing on healthy lifestyle choices, and using prevention. Whilst particular attention is needed in ED patients with acute headache, since there is a higher probability of secondary and serious headache, the role of the ED physician does not consist exclusively of ruling out serious causes. Future research and interventions to reduce migraine-related ED use could target high-risk patients such as those with previous ED visits for any indication and neurology referrals.

Keywords: Emergency Referral; Etiological Diagnosis; Headache.