▪ Headache Medicine 2023, Supplement ▪ p-ISSN 2178-7468, e-ISSN 2763-6178

Headache Medicine

Epidemiological analysis of hospitalizations of individuals in university-age range due to headaches in the municipality of Barbalha, Ceara

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Introduction

According to the ICHD-3, primary headaches are defined by the lack of etiological evidence in clinical or laboratory tests, while secondary headaches are caused by an existing pathological process, having great diagnostic relevance. Migraines, the 3rd most prevalent disorder globally, are primary headaches that present with or without aura, a range of reversible unilateral neurological symptoms, usually of sensorial or visual aspect. The presence of cephalgic disorders such as migraines are prevalent in women, and their severity is shown to be influenced by stressing environmental factors.

Considering this correlation and the documented increase of chronic stress in students, the importance of epidemiological analysis of reports and hospitalizations due to headaches of young people in pre-university and undergraduate education age ranges arises.

Objectives

To analyze the epidemiological profile of patients aged 15 to 29 that were hospitalized due to migraines and cephalic algies in the municipality of Barbalha.

Methodology

The number of hospitalizations due to migraines and headaches in the population aged 15 to 29 years between 2013 and 2023 in the state of Ceará, and most specifically, in the town of Barbalha, was collected using the available data of the System's Information of Aggravation in the Notification of Diseases (SINAN) constructed by the Ministry of Health, available on the DATASUS platform. For statistical analysis, the Google Sheets algorithm was used.

Results

When analyzing the number of hospitalizations of people in the age range of 15 to 29 from 2013 to 2023 due to headache syndromes, 1661 cases were found. An unexpected predominance was reported in the CIR region of Juazeiro do Norte, that represented 909 (54.7%) cases of the sample, surpassing the number of cases in large urban centers, such as Fortaleza, that related only 328 cases.

Among Juazeiro do Norte's cases, 803 (88.3%) occurred in Barbalha. When carrying out a comparison of the annual samples of cases in Barbalha in each year, a reasonable growth rate is observed between 2013 and 2018, with an average increase in incidence of 7 cases per year, period of 44 to 79 cases, until a sudden increase in hospitalizations between 2018 and 2020, reaching an average of 103 cases per year, returning to previous levels in 2021. Among Barbalha's sample, 802 of the hospitalizations took place in the Saint Antonio Maternity Hospital, in which 751 (95.3%) cases were labeled as urgent and 52 (4.7%) as elective. In the profiling of the patients, 456 (56.7%) patients were female and 347(43.3%) were male; 227(28.9%) were in the 15 to 19 age group and 576 (71.7%) were in the 20-29 age group. Ethnically, 667 (83%) were declared as biracial, with 118 (14.6%)not being identified. There were 10 (1.24%) deaths homogeneously distributed in this period, 8 being of patients aged 20 to 29 years.

Conclusion

In summary, the disproportionate distribution of hospitalizations of young people for migraines and other types of cephalic pains in Barbalha in comparison to other areas of Ceara with a larger population volume suggests a greater accessibility of treatment and medical attention of this symptomatology for young people in Barabalha compared to other regions, as Barbalha's Saint Antonio Maternity Hospital provides 24- hour neurological care in its services that may not be available in other regions. The chronology shows probable influence of the COVID-19 epidemic on the increase of cases between 2018 and 2020. However, the elevated proportion of these hospitalizations labeled as urgencies raises concerns that this profile may be an indicator of the presence of pathologies with secondary headaches as symptoms in this group, requiring further epidemiological investigations. This paper was limited to information available in the DataSUS and the inability to compare the clinical patterns of the cases studied, that are safeguarded by the institution.

Keywords: Headaches, Students, Barbalha.