Headache Medicine

Characterization Of Clinical Treatments For Migraine Conducted In Brazil: An Ecological Study

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Introduction

Migraine, or migraine headache, is a disorder characterized by self-limiting episodes of severe headache pain, resulting from a transient dysfunction in the cerebral cortex, leading to significant impacts on individuals' quality of life and well-being. This condition stems from disorders related to genetic, psychological, and anatomical factors. Its multifaceted nature not only generates clinical implications but also raises pertinent questions about how sociodemographic characteristics may be interconnected with this clinical manifestation.

Objective

To characterize the profile of procedures for Complicated Migraine Treatment performed in Brazil through the Unified Health System (UHS - Sistema Único de Saúde, SUS).

Methods

An ecological study was conducted using information from the Hospital Information System of the Unified Health System (HIS/UHS - Sistema de Informações Hospitalares do SUS, SIH/SUS). Data were collected and processed using the Microdatasus package in the R environment. The study encompassed an analysis of interventions performed between January and June 2023, categorized by macroregion of residence, bed specialty (clinical; pediatric), nature of care (emergency; elective), age group (up to 19 years; 20 to 59 years; over 60 years), gender, and patients' race/ethnicity. The statistical analysis included the calculation of total prevalences (by region, gender, and age group), descriptive calculations (mean, standard deviation, median, interquartile range, and relative frequency), as well as inferential analyses, using the Pearson chi-square test ($p<0.05$) with Bonferroni correction and post hoc analysis using Adjusted Standardized Residuals (ASR).

Results

A total of 4,380 hospital procedures for Complicated Migraine Treatment were recorded, with an average of 730.0 procedures per month (SD: ±62.0 procedures/month). Higher prevalences were identified in the Southern (4.3 cases/100,000 inhabitants) and Central-Western (2.6 cases/100,000 inhabitants) macroregions, in the age group of 20 to 59 years (2.7 cases/100,000 inhabitants), among females (3.1 cases/100,000 inhabitants), and among individuals of mixed race (2.6 cases/100,000 inhabitants) and Asian descent (4.4 cases/100,000 inhabitants). The majority of procedures were performed in clinical beds (90.0%) and on an emergency basis (93.5%). The median length of hospital stay was 2 days (IQR: ±2 days). A statistically significant association was found when comparing the nature of care with the macroregion of residence ($X2(4) = 476.2$; $p<0.005$; Cramer's V: 0.3). The analysis identified a higher-than-expected number of emergency procedures for the Southeast region (ASR: 7.3; $p<0.005$), with a proportion of emergency procedures of 97.4%.

Conclusion

The research results suggest a differentiated geographical distribution of procedures for migraine. These findings underscore the importance of preventive strategies and targeted planning to address the specific needs of these groups and minimize more severe complications.

Keywords: Migraine Disorders;Hospitalization;Unified Health System.