Background: Headache is one of the most frequent symptoms in Brain Tumors (BT), but although previous studies have been made on its clinical presentation, there is not yet a typical pattern described.

Objective: To characterize the clinical aspects of headache in patients with a BT based in a larger cohort of patients.

Patients and Methods/ Material and Methods: A search was made in the bases of Neuro- oncology and the Emergency department for data of all patients who presented with headache as a manifestation of BT with Neuropathology diagnosis.

Results: 745 patients met inclusion criteria. The patient’s mean age was 39.1 years old. 443 were men and 302 were women. The histological types of tumors were divided into two groups, neuroepithelial and non-neuroepithelial. The most prevalent tumor types in each group were astrocytomas and medulloblastomas, respectively. Most frequent headache description was tension - type. Intensity was described as moderate in 57.3% 403 patients referred nausea/vomiting presented in association to headache. Seizures were referred in 21.4% of patients. Temporality was without predominance in 53.2%. Localization was referred as holocranial in 75.7%.

Conclusion: Headache associated with BT doesn’t have a definite pattern and the most important features to consider in order to suspect the diagnosis of a intracranial neoplasia is the association of headache with neurological symptom, change in the initial pattern of presentation or addition of new symptoms.

METHODS

The clinical data obtained from 745 patients from the Emergency and Neuro-Oncology departments of the National Institute of Neurology and Neurosurgery (Mexico City, Mexico) in a period of 2016-2017 were analyzed. Inclusion criteria were histopathological diagnosis (by studying a sample following resection of the tumour or biopsy/partial resection) and presence of headache either prior (with no past history of headache), associated to the time of the diagnosis or posterior. Exclusion criteria were history of primary headache, presumptive diagnosis of brain tumor without histopathological diagnosis or with a non-conclusive result, and age under 18.

The design of our study was retrospective, cross-sectional, observational and quantitative.

Patients were interrogated by using a questionnaire on the following aspects of the headache: Localization, onset, temporality, association to abnormal neurological signs, characteristics of the pain, and intensity. Headache types were classified following the criteria of the International Headache Society (IHS). Pain intensity was classified into three categories (mild, moderate and severe) according to the Brief Pain Inventory.

RESULTS

Data base consisted of 745 patients who met inclusion criteria. The patients’ mean age was 39.1 years old. 443 were men (59.4%) and 302 were women (40.5%). Family history of brain tumors was denied in 193 cases, in 16 cases and unknown in 156 cases. Clinical and demographic findings are described as followed:

CONCLUSIONS

We present a large cohort of patients diagnosed with a brain tumor (BT) to contribute to the clinical description of BT associated headaches.

The most common presentation among our group was of an adult male, with a Neuropathology diagnosis of astrocytoma, presenting with a holocranial, tension - type headache, of mild intensity, with no temporality predominance, often accompanied by nausea and or vomiting, and with an onset described as two months or more prior to diagnosis of the BT. This differs from the classical "brain tumor triad" described in previous literature, composed by nocturnal or early morning temporality, severe pain and necessary association to nausea and vomiting.

However, we must emphasize the fact that since BT can encompass many histological types, locations and clinical presentation patterns lie to each patient individual factors, it is to be expected that headache would also be a non-specific entity which varies depending on every case. Therefore we prompt to further investigate patients presenting any of the findings previously mentioned, especially those with abnormal neuroepithelial signs such as seizures, also described in previous series, as it increases the probability of diagnosing a BT and by doing so early, we can improve the patient's prognosis for life expectancy and quality of life.

REFERENCES

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