

Frequency of diagnoses in a specialized headache clinic in Buenos Aires

Frequência de Diagnósticos em um Centro de Cefaleia Especializado de Buenos Aires

Vanessa Nagel
Sol Cavanagh
Marina Olivier
Natalia Larripa
Maria T Gutierrez
Mariela Grandinetti
Daniela Calvo
Fernando Salvat
Lucas Bonamico
Maria Teresa Goicochea

Departamento de Neurología, Hospital Fleni,
Buenos Aires, Argentina

ABSTRACT

Objective: Headache is one of the most frequent reason for consultations in neurology. The global prevalence among adults with migraine is approximately 10% with migraine, 40% for tension-type headache (TTH) and 3% for chronic daily headache. The purpose of this study is to analyze the prevalence of the diagnoses of headache and craniofacial pain among patients evaluated in a specialized headache clinic of Buenos Aires during 2017. **Methods:** Retrospective, descriptive study. We reviewed the electronic medical records of patients who consulted for headaches or craniofacial pain from January 1st to December 31st, 2017. Diagnoses were made according to the criteria of the International Classification of Headache Disorders (ICHD-3). **Results:** We reviewed 3254 electronic medical records and documented 3941 diagnoses: headache (93.03%), craniofacial pain (3.62%) and unclassifiable (3.35%). The average age was 43.14 years. 80.7% were women. Primary headaches were the most frequent diagnoses (78.54%). Migraine represented the main diagnosis (87.42%). Episodic migraine without aura was the most prevalent diagnosis (48%). Tension-type headache (TTH) was found in 8.74% of cases of primary headaches and Trigeminal autonomic cephalalgias (TACs) in 2.89%. Medication-overuse headache (MOH) represented 77.93% of the secondary headaches, and most of them also met chronic migraine criteria fulfilled criteria of chronic migraine. Primary trigeminal neuralgia represented 50% of craniofacial pain and 27% were secondary trigeminal neuralgia, mostly postherpetic or posterior to dental procedures. Regarding to the frequency, 33.58% of the patients had chronic headache. **Conclusion:** In our section, migraine is the most frequent diagnosis followed by medication-overuse headache. The percentage of chronic headache is higher than the prevalence in the general population, probably because it is a tertiary center.

Keywords: Primary headaches, prevalence, migraine, tension-type headache

RESUMO

Objetivo: Dor de cabeça é uma das razões mais frequentes para consultas em neurologia. A prevalência global entre adultos com enxaqueca é de aproximadamente 10%, 40% para cefaleia tipo tensional (TTH) e 3% para cefaleia crônica diária. O objetivo deste estudo é analisar a prevalência dos diagnósticos de cefaleia e dor craniofacial em pacientes avaliados em uma clínica especializada em cefaleia de Buenos Aires durante o ano de 2017. **Métodos:** Estudo retrospectivo, descritivo. Foram revisados os prontuários médicos eletrônicos dos pacientes consultados para dores de cabeça ou dor craniofacial de 1 de janeiro a 31 de dezembro de 2017. Os diagnósticos foram feitos de acordo com os critérios da Classificação Internacional de Distúrbios da Cefaleia (ICHD-3). **Resultados:** Foram revisados 3254 prontuários eletrônicos e documentados 3941 diagnósticos: Cefaleias (93,03%), dor craniofacial (3,62%) e não classificáveis (3,35%). A idade média foi de 43,14 anos. 80,7% eram mulheres. Cefaleias primárias foram o grupo diagnóstico mais frequente (78,54%). Deste, a enxaqueca representou o principal diagnóstico (87,42%). O episódio de enxaqueca sem aura foi o diagnóstico mais prevalente (48%). Cefaleia tipo tensional (TTH) foi encontrada em 8,74% dos casos de cefaleia primária e cefaleias trigemino-autônomicas (TACs) em 2,89%. A cefaleia por uso excessivo de medicamentos (MS) representou 77,93% das cefaleias secundárias, e a maioria delas também atendeu aos critérios de enxaqueca crônica. A neuralgia trigeminal primária representou 50% da dor craniofacial, 27% eram neuralgia trigeminal secundária, principalmente pós-herpética ou posterior a procedimentos odontológicos. Em relação à frequência, 33,58% dos pacientes apresentaram cefaleia crônica. **Conclusão:** Em nosso centro, a enxaqueca é o diagnóstico mais frequente seguido de cefaleia por uso excessivo de medicamentos. A porcentagem de cefaleia crônica é maior que a prevalência na população em geral, provavelmente por ser um centro terciário.

Descritores: Cefaleias Primárias, prevalência, enxaqueca, cefaleia do tipo tensional

*Correspondence

Maria Teresa Goicochea
E-mail: mtgoycochea@fleni.org.ar

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INTRODUCTION

Headache is one of the most frequent consultations in neurology. It is estimated that 95% of men and 99% of women will have at least one episode of headache throughout their life, provided that about 40% have it quite regularly.¹

The global prevalence among adults is approximately 10% of migraine, 40% for tension-type headache (TTH) and 3% for chronic daily headache.² In general population the most frequent headache is TTH, but among patients visiting specialized clinics migraine is the first diagnosis.

Headache can have a significant impact on the patients quality of life. On the World Health Organization's ranking of causes of disability, headache disorders are between the 10 most disabling conditions for the two genders, and between the five most disabling for women.²

There are few data about frequency of headache and craniofacial pain in South America. The purpose of this study is to analyse the prevalence of the diagnoses of headache and craniofacial pain among patients evaluated in Fleni, a specialized headaches clinic of Buenos Aires, during 2017.

Patients and methods

We performed a retrospective, descriptive study based on the electronic medical records of patients evaluated for headaches or craniofacial pain who presented to the headache clinic of the Fleni Institute from January 1st to December 31st, 2017. Diagnoses were recorded according to the International Classification of Headache Disorders (ICHD-3) criteria. When a patient met criteria for more than one type of headache, all of them were coded.

This work was approved by the ethics committee of the Fleni Institute.

RESULTS

Between January 1st to December 31st, 2017, 3254 patients (2626 women and 628 men with a ratio of 4.18: 1) were evaluated at headache clinic of the Fleni Institute. The average age was 43.14 years (range 18 to 95 years). We reviewed these 3254 electronic medical records and documented 3941 diagnosis: 3095 primary headaches (78.54%), 571 secondary headaches (14.49%), 90 primary craniofacial pain (2.28%), 53 secondary craniofacial pain (3.35%) and 132 were considered unclassifiable (3.35%) (Figure 1).

Regarding primary headaches 2706 patients were migraineurs (87.42%), 270 patients had TTH (8.74%), 89 patients had TAC (2.89%) and 30 patients had others primary headaches (0.95%). Figure 2 Among migraine, 1309 patients were diagnosed with episodic migraine without aura (48%), 993 patients had chronic migraine without aura (37%) and 404 patients had diagnosis of migraine with aura (15%). Episodic tension-type headache was found in 170 patients of primary headaches (5.50%), whereas 100 patients had chronic

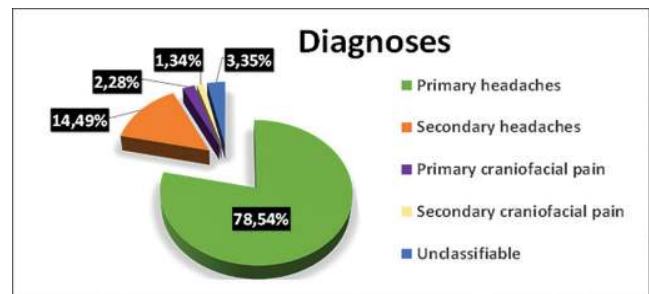


Figure 1. Frequency of headache diagnoses.

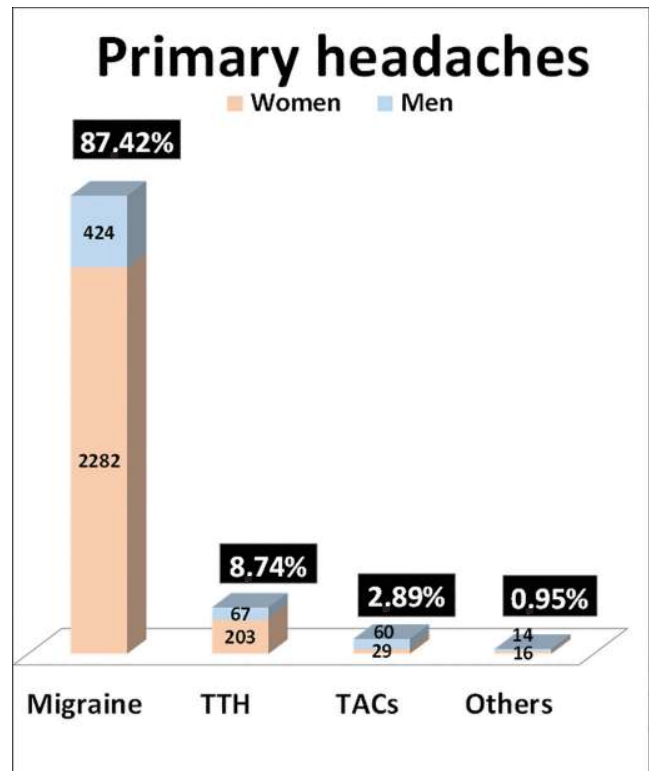


Figure 2. TTH: tension-type headache, TACs: Trigeminal autonomic cephalalgias.

forms (3.24%). Trigeminal autonomic cephalalgias corresponded to 2.89% of the cases. 82 patients were cluster headache (2.66%) and 7 hemicranias (0.23%). In our series there were no cases of Short-lasting Unilateral Neuralgiform headache attacks with Conjunctival injection and Tearing (SUNCT) or short-lasting unilateral neuralgiform headache attacks with cranial autonomic symptoms (SUNA). Among others primary headaches, the most frequent was headache associated with sexual activity, with 9 cases (0.29%). The rest were distributed as follows: 6 primary cough headache (0.19%), 5 primary stabbing headache (0.16%), 5 new daily persistent headache (NDPH) (0.16%), 3 primary thunderclap headache (0.09%), 1 nummular headache (0.03%) and 1 hypnic headache (0.03%).

Secondary headaches were diagnosed in 571 patients (14.49%). Headache attributed to substances was the main diagnosis, with 445 patients (77.93%). Of

these, only one was secondary to the use of illicit drugs (cocaine), while the rest was attributed to medication-overuse headache (MOH). Among these patients with overuse of analgesics, 402 had diagnosis of chronic migraine without aura (97.33%), 5 episodic migraine without aura (1.22%) and 6 migraine with aura (1.45%). The remain secondary headaches were distributed as follows (Figure 3):

- 34 headaches attributed to craniofacial or cervical structures (5.95%): 17 cervicogenic (50%), 11 temporomandibular disorder (TMD) (32.36%), 4 rhinosinusitis (11.76%), 1 trocleodinia (2.94%) and 1 lesion in subcutaneous tissue (2.94%).
- 22 traumatic headaches (3.85%): 14 postcraniectomy (63.6%) and 8 head injuries (36.4%).
- 21 headaches secondary to intracranial pathologies (3.68%): 8 space-occupying lesions (38.09%), 7 CSF hypotension (33.33%), 4 idiopathic intracranial hypertension (19.04%) and 2 secondary hydrocephalus (9.52%).
- 20 headaches attributed to vascular disorders (3.5%): 8 vascular dissections (40%), 5 reversible cerebral vasoconstriction syndrome (25%), 2 venous thromboses (10%), 2 strokes (10%), 1 pituitary apoplexy (5%), 1 subarachnoid hemorrhage (5%) and 1 giant cell arteritis (5%).
- 7 infections (1.22%): 5 systemic febrile syndrome (71.42%) and 2 viral meningitis (28.57%).

- 6 headaches attributed to disorders of the homoeostasis (1.06%): 5 sleep apnea-hypopnea syndrome (83.26%) and 1 headache associated with airplane travel (16.6%).
- 10 cases were due to psychiatric symptoms (1.77%).

Primary trigeminal neuralgia represented 50% of craniofacial pain and 27% were secondary trigeminal neuralgia: 16 postherpetic (42%), 12 posterior to dental procedures (32%), 3 multiple sclerosis (7,8%), 2 dental infections (5,2%), 2 tumors (5,2%), 1 mandibular surgery (2,6%), 1 trauma (2,6%) and 1 venous anomaly (2,6%). 10% of the cases were diagnosed as primary occipital neuralgia and 3% secondary: 1 chordoma, 1 multiples sclerosis, 1 tumor and 1 C2 zoster. 2% were primary glossopharyngeal neuralgias. 11 patients has diagnoses of other facial pain: 8 atypical facial pain (72,73%), 1 burning mouth syndrome (9,09%), 1 pain secondary to retropharyngeal abscess (9,09%) and 1 facial pain secondary to a venous tumor (9,09%) (Figure 4).

34% of the patients had diagnosis of chronic headache (90.8% migraine, 9.2% TTH). Figure 5 2593 patients had 1 diagnosis, 635 patients 2 diagnoses and 26 patients 3 diagnoses. The most common association was migraine (mostly chronic without aura) and overuse of medication.

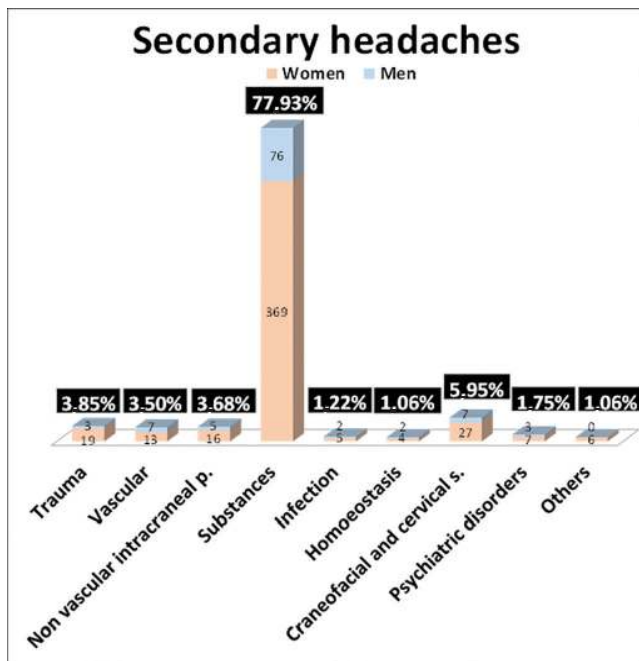


Figure 3. Distribution of Secondary Headaches.

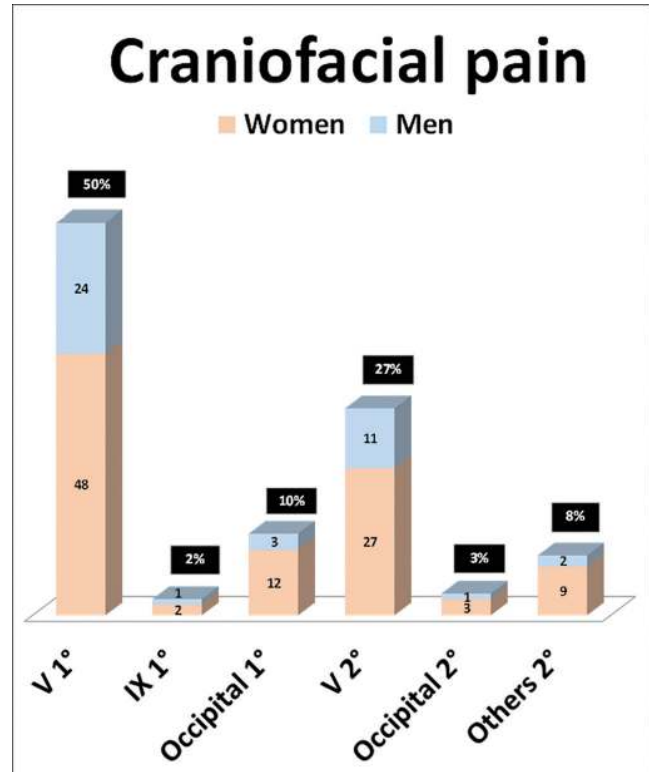


Figure 4. Distribution of craniofacial pain syndromes.

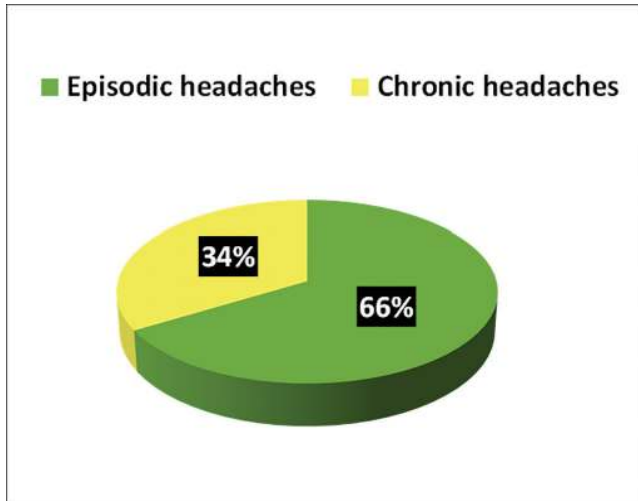


Figure 5. Percentages of Episodic and Chronic headaches.

DISCUSSION

The demographic characteristics of the study showed a female-to-male ratio of 4:18, higher than in other published series³. Average age of the patients was 43.14 years, comparable with those reported previously³.

As in other specialized headache, the most frequent diagnosis in our population was migraine. Among them, episodic migraine without aura was the most prevalent, followed by chronic migraine and finally migraine with aura.

The second diagnosis was Medication-overuse headache. All these patients also have another type of headache, which was the cause that led to the abuse of analgesics. These patients were mostly diagnosed with chronic migraine without aura.

Tension headache was the next diagnosis in frequency. Although this type of headache is the most frequent in the general population, the percentage is lower in specialized centers, because it usually generates less impact on the patients' lives, and therefore, they need less medical assistance. In our series the prevalence of this type of headache is lower than in other published studies. Cluster headache was the most frequent trigeminal autonomic cephalalgia. Other primary headaches accounted for a small percentage of the diagnoses.

Medication-overuse headache was the most frequent secondary headache. The majority were patients with chronic migraine. The next diagnosis within this group was headache associated with craniofacial and/or cervical pathologies, mainly cervicogenic pathology and temporomandibular joint.

Within craniofacial neuropathic pain, primary trigeminal neuralgia was the most prevalent, while postherpetic neuralgia was the next frequency diagnosis.

The percentage of chronic headaches was 34%, higher than in the general population, probably because Fleni is a tertiary center. Most of them were migraines.

CONCLUSIONS

There are few published data about frequency of different types of headaches and craniofacial pain in South America, being the main data those coming from Brazil.⁴⁻⁶ According to our knowledge there are no data from Argentine headache center.

In our section, migraine is the most frequent headache. Unlike the published data, where tension-type headache is the next cause of consultation in specialized centers, medication-overuse headache is the second diagnosis. The percentage of chronic headache is higher than the prevalence in the community, probably because it is a tertiary center.

The high frequency of chronic headache, especially Medication-overuse headache, highlights the need for more education for doctors and the importance of raising awareness among patients about its prevention, detection and treatment.

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