

The Plane Headache: A Frequent but Little Known Entity

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Abstract:

Airplane headache is a newly diagnosed pathology and can be relatively common given current technologies. In this work we explain the case of a 34 year old woman and a revision of symptoms (hemicranial headache landing and / or takeoff of the plane) and treatments (pharmacological and non-pharmacological) of this pathology.

Keywords: Headache; migraine; plane; sinusitis.

Introduction:

Headache associated with airplane travel was first reported in 2004¹. Since then there have been several case reports.²⁻⁵ We have observed that few cases have been reported, which may indicate either the rarity of this entity or lack of awareness among medical practitioners. The most prominent characteristics of this headache include: Headache exclusively occurring during airplane travel, short duration, severe in intensity, and medial supraorbital location. This entity and the diagnostic criteria of airplane travel associated headache are recently included in the International Classification of Headache.⁶

The objective of this document is to realize a brief review of the pathology due to a case report.

Case report:

A 34-year-old Caucasian woman without personal or family clinical history of interest, presented a predominantly right intensive hemicranial headache with tearing and rhinorrhea at the time of landing and take off of flights in airplane limiting their quality of life because their work requires many trips in this type of transport throughout the year. These episodes are not related to other triggers.

At neurological examination, cranial nerves are preserved, limbs strength and sensitivity were conserved and symmetric and negative Romberg. No signs of neurological deficit or other notable changes are objectified.

Considering the symptoms, this patient is susceptible of suffers a migraine cataloged in recent consensus on this

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disease as “headache attributed to air travel”.

Discussion:

Headache attributed to air travel is a new pathology attributed mainly to the moments of take off and landing, being more frequent in the latter case. The first case was reported in 2004¹ and, on this basis, a study of 63 cases published was performed in 2011.⁷

In light of the literature, it has been observed that this pathology is related to sinus barotraumas, alterations in its pressure, personal history of acute or chronic sinusitis or allergies.⁸ The diagnostic criteria are included in the 3rd Edition of the International Classification of Headache Disorders⁶ within headaches attributed to homeostatic disorders. These criteria are:

- a) The patient is flying by plane
- b) At least 2 episodes of headache with 2 of the following features:
 - a. Headache occurs exclusively in flight.
 - b. At least, one of:
 - i. The pain increases in relation to take off and / or landing
 - ii. Spontaneous improvement 30 minutes after the end of the ascent / descent
 - c. Severe headache with at least two of the following three features:
 - i. Unilateral location
 - ii. Orbitofrontal location (parietal involvement may also occur)
 - iii. Hammering or sharp clinical features (can also be pulsed)
- d) No other headache fulfills criteria set out in the 3rd edition of the IHS

In 2012, Mainardi et al⁹ performed a study with 75 patients where it was observed that the disease was more common in

men (61.3%) over 35 years of age without symptoms in the first flight (88%). The predominant clinical was hemicranial headache (86.5%) fronto-orbital (76.7%), “hammering” (70.3%) and shorter than 30 minutes (95.8%) being the most frequent 10-20 minutes (58.3%). Looking treatment, at non-pharmacological level, 25% of patients reduced pain intensity by means of pressure on the painful point and Valsalva. At pharmacological level, the use of NSAIDs and nasal decongestants 30-60 minutes before takeoff have a total, or 50% higher efficiency at least 66% of those affected.

In the largest study of this disease in terms of number of subjects¹⁰ showed that 5.7% (52 subjects with 34 women of similar age to our patient) had episodes of migraine at the time takeoff or landing.

Early recognition and proper management are important since it is estimated that each year approximately one billion people around the world travel by airplane and is predicted that in the next two decades, this number may increase. That is why we need to keep this disease in mind to establish effective treatment early and avoid possible problems with anxiety or behavior of flying phobia.

Conflict of interest: None

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