

“Airplane headache” or flight-related headache?

Dear Sir We read with interest the paper by Pfund et al. (1) in which the authors describe a patient with headache attacks related to airplane travel. Some clinical features of Pfund’s patient resemble those of previously reported “airplane headache” cases (2–6), particularly with regard to landing correlation and severe intensity of the pain. However, other characteristics seem to differ: the duration of the headache exceeds 30 minutes, the temporal limit which recurs in the published cases; the pain is not strictly unilateral, mainly fronto-orbital, but diffuse; nausea and tinnitus are described as accompanying symptoms whereas in previous airplane headache cases such symptoms were not reported.

Because of the stereotypy of the attacks of the published cases, we had advanced provisional diagnostic criteria (4). As a consequence of the dissemination of our paper on the Internet, we received a number of email messages from people who had experienced this particular headache. Their kind cooperation allowed us to carry on a study to better specify the clinical pattern of airplane headache. The outcome of our investigation of more than 60 cases will shortly be published: the results confirm the stereotypy of the attacks, particularly with regard to the short duration of the pain, lasting less than 30 minutes in up to 95% of the sample; the absence of accompanying signs or symptoms and of clinical and/or radiological signs of sinus inflammation.

The case reported by Pfund et al. (1) improved after a specific therapy following the demonstration of the presence of a sinus pathology. Chronic inflammation of the sinus, as the authors illustrate (1), leads to impaired sinus ventilation and, as a result, the compensation between intra-sinus and external pressure, which occurs during take-off and landing, cannot be achieved. The occurrence of a severe headache during airplane travel in people suffering from sinusitis is well known; the American Society of Aerospace Medicine Specialists guidelines suggest that airplane pilots refrain from flying when experiencing cold, sinusitis or upper airway symptoms (7,8). Moreover, flight-related cases attributed to other pathologies, such as intracerebral pneumatocele (9), pneumocephalus (10) or submucosal

hematoma (11), have also been published and, obviously, they should be considered as secondary forms. The condition we call “headache attributed to airplane travel” seems to differ from pain due to a documented organic pathology.

The occurrence of the pain in strict relation to the aircraft descent in symptomatic headaches could share common mechanisms with the “pure” airplane headache and its study could be helpful for the understanding of the underlying pathogenesis, as barotrauma appears to be involved in causing both forms of flight-related pain. However, the observation that in airplane headache the pain appears inconstantly in the majority of the cases and without any apparent pathology involving the paranasal sinuses could lead one to postulate a more puzzling pathogenesis underlying this condition, something other than barotrauma.

The exact prevalence of airplane headache is unknown, but its occurrence appears to be more frequent than previously thought, and hence its clinical relevance is greater than previously believed. The diagnostic criteria we proposed (4) seem to find validation in the study we will soon publish. We suggest that the “pure” airplane headache be considered separately from the flight-related headache occurring in patients with a causal organic condition.

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