

CORRESPONDENCE

Visual Loss Following Intraocular Gas Injection

by Dr. med. Marie-Therese Silvanus, Patrick Moldzio,
 Prof. Dr. med. Norbert Bornfeld, Prof. Dr. med. Jürgen Peters in volume 6/2008

Small Correction

I wish to point out a small error, in order to ensure that those who are not familiar with the subject are not at risk of misinterpretation. The cabin pressure in passenger airplanes does not depend on the type of aircraft but can be controlled over a wide range. So-called "sea level flights," flights with a cabin pressure that equals that at sea level, are undertaken only in exceptional circumstances because the maneuver requires enormous amounts of fuel and puts the material under strain.

A jumbo jet is like a child's balloon, which is inflated owing to internal pressure and expands by about 20 cm when it has reached its cruising height. The rules of the International Civil Aviation Organization say that cabin pressure is not allowed to drop below the equivalent height of 2300 meters. As the authors report, most flights take place at 1800 meters equivalent pressure – a compromise between technology, economic considerations, and the medical requirements of passengers with moderate illness who may be on board.

The example of the jumbo jet (1700 meters) and the DC9 (2400 meters) may lead to misinterpretation: "Fly jumbo as it is safer." This is not the case. As recently published data have shown, it is mainly the modern aircraft types that travel at low pressures, presumably for reasons of profitability, but specialists in travel and aviation medicine follow this trend rather critically.

In any case, what is correct and extremely important is the authors' conclusion: In any clinical situation where pressure may play a part – for example after dives,

pressure chamber treatments – in patients with the listed eye problems, the golden rule is: Be careful with heights, whether in an aircraft or on the ground (car, mountain lift, or by foot).

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In Reply:

Under no circumstances did we want to create the impression that certain types of aircraft are preferable to others. Our intention was to raise awareness in colleagues of less involved disciplines – outside ophthalmology and anesthesia – for the increasing number of intraocular gas bubbles and the problems associated with these. In this, we seem to have succeeded, as the numerous emailed responses to our article show.

In this context, we particularly like Professor Küpper's "take home" message: Be careful with heights, whether in an aircraft or on the ground.

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Conflict of interest statement

The authors of the letter and the reply declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.