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Should a Pilot Suffering from Ménière's Disease Be Grounded or Lifted off to the Moon?

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Key Words

Ménière's disease

Pilots

Aviation

Cockpit crew

Abstract

Recently, a pilot suffering from Ménière's disease was referred to our department. The decision concerning his ability to fly was made after an open discussion with him and his employer. He was allowed to fly during a period of remission. The relationship based on mutual trust proved to be wise since this pilot never tried to deny any recurrence of vertigo and spontaneously decided to obtain a waiver when vertigo reoccurred. In contrast, a law stating that pilots with Ménière's disease should be permanently grounded regardless of the treatment's result may lead to pilots flying with unconfessed illness.

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Introduction

In a recent case report, Kortschot and Oosterveld [1] concluded that a pilot suffering from Ménière's disease should be permanently disqualified from flying regardless of the treatment's result. Such a definite statement is inappropriate because pilots may deny any health problem for a long period of time, fearing to be grounded permanently. Therefore, it is not surprising to learn that the medical history of the patient in that study was sometimes unreliable [1].

Recently, a pilot suffering from Ménière's disease was referred to our department. In contrast to the above-mentioned report, the decision concerning his ability to fly was made after an open discussion with him, his employer and doctors of the Federal Aviation Office. He was allowed to fly, which proved to be a wise decision since he never attempted to deny any recurrence of vertigo and spontaneously decided to obtain a waiver when vertigo reoccurred.

Case History

One year prior to being referred to our department, a 46-year-old pilot noticed an episode of left-ear diplacusis, which resolved spontaneously within a few hours. Four months later, during 2 consecutive days, he suffered from 2 spells of dizziness lasting 8 h each. He stopped working for 1 week but did not undergo medical evaluation. Vertigo occurred again 8 months later, preceded by a sensation of left-ear fullness and hearing loss. The otological examination was normal.

Audiograms showed a left fluctuating low-frequency sensori-neural hearing loss (fig. 1).

Auditory brainstem potentials were normal at supraliminal intensities. A right beating nystagmus was detected during an episode of vertigo; otherwise, electronystagmography was normal. MRI of the brain revealed no anomaly. He was considered as having definite Ménière's disease [2]. A left transtympanic ventilation tube was immediately inserted [3] with subsequent relief of vertigo, lasting 4 months. The patient then noticed that the ventilation tube was obstructed, and

mild vertiginous attacks reappeared. After the tube's reinsertion, the patient was free of symptoms, and 1 month later he was allowed to fly.

He was able to work normally for 3 months. During a flight to a foreign country, he noticed that the ventilation tube was again obstructed. The following morning he felt a slight disequilibrium. He immediately informed his company and a colleague was sent to

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0.125 0.25 0.5

8 kHz

8 kHz

0.125 0.25 0.5 1

Fig. 1. Audiograms (1-week interval) showing a fluctuating left hearing loss prior to the first insertion of a ventilation tube. O = Right air conduction; • = left air conduction.

assume the return flight. A third ventilation tube was inserted. He was able to resume flying for 2 months, but his condition deteriorated with increasing tinnitus. As a result of the constant worry and stress of not being able to assume responsibility, he requested to be grounded. He is now considering further surgical treatment and is aware of the advantages and risks of a sacculotomy, cochleosacculo-tomy, shunt of the endolymphatic sac, or vestibular neuroectomy.

Discussion

Although this pilot was able to work only for a few months after the onset of symptoms, this case demonstrates that Ménière's disease is not incompatible with normal activity, even with flying status. A famous case supports this assertion: Alan Shepard became the first American to go in outer space on May 5, 1961. A few years later, he was diagnosed as suffering from Ménière's disease. Five years after the onset of symptoms, he underwent a shunt of the endolymphatic sac, performed by Wil-

liam House in Los Angeles [4]. Relief of vertigo was obtained, and in February 1971 he was lifted off to the moon as commander-in-chief of Apollo 14: he walked and even played golf on

the surface of the moon (!) and returned to earth safely. Moreover, a recent study has shown that patients with Ménière's disease do not have a higher risk of accidents than the general population [5]. Therefore each case should be considered individually, rather than establishing a definite rule and grounding all pilots with the disease.

The role of the otoneurologist is to inform patients with Ménière's disease of the multiple surgical procedures available to control vertigo. A relationship based on mutual trust between the patient, his doctor and the employer is necessary to choose the best solution and to give the patient the hope of returning to normal life and professional activity. This approach avoids the dangers incurred by pilots flying with unconfessed and unrecognized illness.

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