

Vestibular neuritis

Vestibular neuritis is a disease of the vestibular (balance) system. It is characterized by sudden onset of severe vertigo (sensation of movement of self or environment), nausea, vomiting and imbalance. The initial severe phase typically lasts for hours or days. The vertigo, nausea and vomiting quickly improve and are generally followed by a period of general unsteadiness lasting several weeks.

Cause

The name 'vestibular neuritis' means 'inflammation of the vestibular nerve', that is, inflammation of the nerve that carries information from the balance organs to the brain. However, although it is assumed that this is the cause of the disease, probably related to an infectious process (e.g. a virus), this has not been definitively shown. For this reason, it is also known by other terms, such as 'vestibular labyrinthitis' or 'acute unilateral peripheral vestibulopathy'. Regardless, the condition is self-limiting, and the basis of symptoms and the disease course are both well-understood.

Basis of symptoms

The symptoms of vestibular neuritis occur because of the sudden loss or decrease in function of one set of vestibular organs (i.e. from one inner ear). Our two ears normally send a constant stream of information to the brain about the status of our balance. When one ear suddenly stops sending this information, the brain receives signals from only the healthy side and interprets this to mean that we are moving (usually rotating). To try to compensate for this false sense of rotation, the brain generates eye and body movements in the opposite direction, causing a strong sensation of spinning, a tendency to fall to one side and nausea. While this can be very debilitating and frightening when it occurs, this feeling passes over hours or days as the vestibular system recovers.

Natural course

Patients with vestibular neuritis improve rapidly in the first hours or days after the onset of vertigo. In some patients this is due to recovery of the lost function. In others, it is due to changes in the brain as it adapts to the altered stream of information coming from the affected ear (vestibular compensation). Many patients will experience some general imbalance over the weeks following the neuritis, particularly when moving the head quickly. This is because one set of vestibular organs has trouble producing all of the functions normally accomplished by both ears, and this is especially the case during rapid head movements. These symptoms gradually improve with time and exercise.

Incidence

Vestibular neuritis can occur at any age, including childhood, with an incidence of somewhere between 3.5 and 24 per 100 000. Recurrence of vestibular neuritis is relatively rare, under 2%.

Treatment

The treatment of vestibular neuritis is mainly supportive, and may include medications to suppress feelings of nausea and maintain hydration in the severe phase. Corticosteroids may also be given in this acute phase. As the initial symptoms subside, rehabilitation exercises become very important. Patients are typically given instructions for exercises to practice at home or are taught exercises in rehabilitation sessions. The aim of these exercises is to improve eye and body stability during head movement and increase tolerance of movement.