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## EDITORIAL

### Otoneurological evaluation: current good practice<sup>☆</sup>

#### Avaliação otoneurológica: a boa prática

Currently, otoneurology is understood as the study and evaluation of the balance system. In the past, clinical evaluations were complemented by a series of tests and procedures, which together assessed the complex system of balance. Together with the vestibular assessment, audiometry and acoustic immittance are part of the otoneurological assessment.

The classical vestibular evaluation consists of three portions:

1. A complete history;
2. Direct tests that observe static and dynamic balance, evidence of coordination, and function of the vestibular-ocular reflex through head impulse, shifting of the line of gaze, and spontaneous and semi-spontaneous nystagmus observations;
3. Oculography, an evaluation monitored by electrodes or infrared goggles, comprising semi-spontaneous and spontaneous nystagmus measurements, as well as ocular fixation; oculomotricity (saccadic ocular movements [SOMs], eye-tracking, and optokinetic nystagmus testing); positional and positioning tests and hot and cold bilateral thermal testing (TT), with appropriate intervals between stimulations.

The technical part of oculography does not have any clinical significance without data from the history and physical examination, since the interpretation of the tests depends on the joint evaluation and interaction between symptoms and oculographic signs. Therefore, the physician's participation is required for a proper diagnosis. A complete otoneurological assessment lasts approximately one hour in the absence of complicating factors.

TT provides information about the integrity and function of the lateral semicircular canal after thermal stimulation, and is usually altered in cases of unilateral or bilateral peripheral vestibular failure. The classic example of TT alteration is vestibular neuritis, in which post-stimulation hyporreflexia is observed. However, TT may be normal in several vestibular disorders.

Among otoneurological diagnoses that may exhibit a normal TT are migraine, benign paroxysmal positional vertigo, chronic subjective dizziness, or diseases in which fluctuation of vestibular function occurs (such as Menie-

re's disease in its remission period). Therefore, the TT as an isolated test cannot diagnose several diseases of the vestibular system. Medical assessment is necessary to suggest a clear diagnostic hypotheses, with the purpose of providing reports and indicating additional tests to confirm that hypothesis. These might include posturography, electrophysiological tests, head impulse testing, pendulum chair, and imaging tests.

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