

Vertigo – Self-Diagnosis

In-situ electronystagmography using a smartphone

Technology

Vertigo is among the most common indicating symptoms of a large number of complaints and illnesses, including in the inner ear and the brain's balance control centre, as well as neuritis, cardiovascular disease, metabolic disorders, cervical spine problems or mental distress. Experience has shown that patients have often embarked on an odyssey of visits to doctors before a correct diagnosis is made and suitable treatment initiated.

This technology carries out video-oculography on the iPhone or other mobile devices equipped with an accelerometer and gyroscope. The main advantage of self-diagnosis resides in the mobile availability of an inexpensive diagnosis method. The results are equivalent to time-consuming and expensive electronystagmography (ENG) in the laboratory. This is because they can be obtained during an acute attack of vertigo, whereas in the laboratory, slight changes have to be extracted from the measurement data, sometimes weeks after the attack of vertigo. Due to this mobile availability, this technology is particularly suitable for detecting positioning nystagmus during the acute attack.

Innovation

- Mobile diagnostic device for the self-diagnosis of vertigo by carrying out video-oculography for smartphones
- Diagnosis can be performed during acute episodes of vertigo (in-situ)
- All the benefits of telemedicine

Fields of application

- For diagnosing vertigo during acute attacks of vertigo
- As a dispensing device/software (in the form of an app) in GP practices
- Particularly in rural areas that are a long way from a vertigo and dizziness department

Market potential

- Approx. 40% of all patients that go to an emergency department or outpatient department also have vertigo
- Around one in every ten patients complains of feelings of vertigo/dizziness and balance problems when they visit their doctor.
- Mobile health market

Responsible Scientist

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Branch

Vertigo, Mobile Medical Apps, E-Health, Self Diagnosis

Patent Status

DE102011118764A1
Filed (PRD) Nov 17th 2011

Reference Number

ZEE20100629

Status: Jun-18



CTF – The R&D Company of the
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