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March 03, 2020; 94 (9) **ARTICLE**

# Questionnaire-based diagnosis of benign paroxysmal positional vertigo

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First published December 30, 2019, DOI: <https://doi.org/10.1212/WNL.0000000000008876>

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## Abstract

**Objectives** To develop a simple questionnaire for self-diagnosis of benign paroxysmal positional vertigo (BPPV).

**Methods** We developed a questionnaire that consisted of 6 questions, the first 3 to diagnose BPPV and the next 3 to determine the involved canal and type of BPPV. From 2016 to 2017, 578 patients with dizziness completed the questionnaire before the positional tests, a gold standard for diagnosis of BPPV, at the Dizziness Clinic of Seoul National University Bundang Hospital.

**Results** Of the 578 patients, 200 were screened to have BPPV and 378 were screened to have dizziness/vertigo due to disorders other than BPPV. Of the 200 patients with a questionnaire-based diagnosis of BPPV, 160 (80%) were confirmed to have BPPV with positional tests. Of the 378 patients with a questionnaire-based diagnosis of non-BPPV, 24 (6.3%) were found to have BPPV with positional tests. Thus, the sensitivity, specificity, and precision of the questionnaires for the diagnosis of BPPV were 87.0%, 89.8%, and 80.0% (121 of 161, 95% confidence interval 74.5%–85.5%). Of the 200 patients with a questionnaire-based diagnosis of BPPV, 30 failed to respond to the questions 4 through 6 to determine the

involved canal and type of BPPV. The questionnaire and positional tests showed the same results for the subtype and affected side of BPPV in 121 patients (121 of 170, 71.2%).

**Conclusion** The accuracy of questionnaire-based diagnosis of BPPV is acceptable.

**Classification of evidence** This study provides Class III evidence that, in patients with dizziness, a questionnaire can diagnose BPPV with a sensitivity of 87.0% and a specificity of 89.8%.

## Glossary

**AC**=anterior canal; **BPPV**=benign paroxysmal positional vertigo; **CRP**=canalith repositioning procedure; **HC**=horizontal canal; **PC**=posterior canal; **STARD**=Standards for Reporting Diagnostic Accuracy Studies; **VOG**=video-oculography

## Footnotes

Go to [Neurology.org/N](https://www.neurology.org/N) for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

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Received May 12, 2019.

Accepted in final form August 29, 2019.

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Submitted December 30, 2019

### Reader Response: Questionnaire-based diagnosis of benign paroxysmal positional vertigo

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