

DIZZINESS AND BENIGN PAROXYSMAL POSITIONAL VERTIGO AMONG OLDER ADULTS – HEALTH-RELATED QUALITY OF LIFE AND ASSOCIATED FACTORS

Akademisk avhandling:

Som för avläggande av Medicine doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentlig försvaras i hörsal Arvid Carlsson, Medicinaregatan 3, Göteborg, fredagen den 3 april 2020, klockan 09.00

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Avhandlingen baseras på följande delarbeten

- I. **Ellen Lindell**, Caterina Finizia, Mia Johansson, Therese Karlsson, Jerker Nilson, Måns Magnusson. Asking about dizziness when turning in bed predicts examination findings for benign paroxysmal positional vertigo. **J vest research, 28 (2018) 339-347.**
- II. **Ellen Lindell**, Lena Kollén, Mia Johansson, Therese Karlsson, Lina Rydén, Hanna Falk Erhag, Hanna Wetterberg, Anna Zettergren, Ingmar Skoog, Caterina Finizia. Dizziness and benign paroxysmal positional vertigo and health-related quality of life among older adults in a population-based setting. **Manuscript submitted.**
- III. **Ellen Lindell**, Lena Kollén, Mia Johansson, Therese Karlsson, Lina Rydén, Anna Zettergren, Kerstin Frändin, Ingmar Skoog, Caterina Finizia. Dizziness and its association with walking speed and falls efficacy among older men and women in an urban population. **Aging Clin Exp Res. 2019 sep 5.** [Epub ahead of print].
- IV. **Ellen Lindell**, Lena Kollén, Mia Johansson, Therese Karlsson, Lina Rydén, Madeleine Mellqvist Fässberg, Hanna Falk Erhag, Ingmar Skoog, Caterina Finizia. Health-related quality of life and sense of coherence among dizzy older adults in an urban population. **Manuscript submitted.**

SAHLGRENSKA AKADEMIN
INSTITUTIONEN FÖR KLINISKA VETENSKAPER



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Dizziness is a common complaint reported by more than 30% of persons over 70 years of age and accounts for 2% of all visits in healthcare annually. Benign paroxysmal positional vertigo (BPPV) is a common and treatable cause of dizziness. The overall aim of this thesis was to enhance knowledge of dizziness, BPPV and associated factors among older adults. The secondary aim was to focus on BPPV diagnosis.

Method

In paper I, patients admitted to the Ear-Nose-Throat clinic at Södra Älvsborg Hospital due to dizziness or vertigo were asked questions about dizziness and were investigated for BPPV with Dix-Hallpike and log roll test. Papers II-IV included material from the Gothenburg H70 birth cohort studies, which is a multidisciplinary longitudinal cross-sectional cohort survey. The participants were investigated at age 75 (paper II) for symptoms of dizziness, signs of BPPV using side-lying test, walking speed, self-rated health and health-related quality of life (HRQL) measured using Short Form-36 (SF-36). In papers III and IV the participants were investigated at age 79 for dizziness, history of falls, walking speed, comorbidity and intake of medication. Fear of falling was measured using the questionnaire Falls Efficacy Scale (FES (S)) (paper III). HRQL was measured using SF-36, dependence on activities of daily life (ADL) measured by the Katz index and Sense of Coherence (SOC) using SOC-13 (paper IV).

Results

Results from paper I demonstrated that answering “yes” to having dizziness when lying down or turning over in bed increased the likelihood of having BPPV by an odds ratio of 60. Results from papers II – IV showed that HRQL, number of falls, self-rated health and walking speed were negatively associated with having dizziness at both 75 and 79 years of age. There were no big differences regarding HRQL, self-rated health, tiredness, falls or walking speed between persons with BPPV compared to those having general dizziness/impaired balance. Dizziness at age 79 was reported by over half of the participants with no gender differences. Dizziness was related to a higher risk of falls among women - an association not seen among men. Dizzy individuals had a stronger fear of falling, a higher number of medications and more comorbidity than those without dizziness. Enhanced number of medications increased the risk of falling. Sense of coherence (SOC) did not differ between dizzy and non-dizzy persons.

Conclusion

Dizziness and BPPV is common among older adults and is negatively associated with HRQL and self-rated health. Since BPPV is a cause of dizziness that is potentially curable, it is important to liberally test for, and treat, the condition in order to improve HRQL and well-being. Older adults with dizziness had higher comorbidity, walked slower and tended to fall more often than older adults without dizziness.

Keywords

Dizziness, vertigo, unsteadiness, falls, older adults, walking speed, health-related quality of life, sense of coherence