

Relationship between Preferred Sleeping Position and Asymmetric Visual-field Loss in Open-angle Glaucoma Patients

Kim KN(1) , Jeoung JW(2) , Park KH(3) , Kim DM(4) , Ritch R(5)

1 Department of Ophthalmology, Chungnam National University Hospital, Daejeon, South Korea.

2 Department of Ophthalmology, Seoul National University Hospital, Seoul, South Korea.

3 Department of Ophthalmology, Seoul National University Hospital, Seoul, South Korea; Department of Ophthalmology, Seoul National University College of Medicine, Seoul, South Korea. Electronic address: kihopark@snu.ac.kr.

4 Department of Ophthalmology, Seoul National University Hospital, Seoul, South Korea; Department of Ophthalmology, Seoul National University College of Medicine, Seoul, South Korea.

5 Einhorn Clinical Research Center, New York Eye and Ear Infirmary, New York, USA; Department of Ophthalmology, New York Medical College, Valhalla, New York, USA.

PURPOSE: To investigate the relationship between preferred sleeping position and asymmetric visual-field (VF) loss in open-angle glaucoma (OAG) patients.

DESIGN: Retrospective, cross-sectional study.

METHODS: Six hundred and ninety-two (692) patients with bilateral normal-tension glaucoma (NTG) or high-tension glaucoma were consecutively enrolled. A questionnaire to determine the preferred sleeping position was administered to each patient. Asymmetric VF loss was defined as a difference in mean deviation between the two eyes of at least 2 dB. According to these values, the better eye and worse eye were defined. Among the patients with asymmetric VF loss, the numbers preferring the worse-eye-dependent lateral decubitus position and the better-eye-dependent lateral decubitus position were compared.

RESULTS: Among the enrolled patients, 309 (60.6%) with NTG and 121 (66.5%) with high-tension glaucoma had asymmetric VF between the two eyes. Among the 309 NTG patients, 100 (32.4%) preferred the lateral decubitus position. Of these, 66 (66.0%) preferred the worse-eye-dependent lateral decubitus position ($P=0.001$). Among the 121 high-tension glaucoma patients, 32 (26.4%) preferred the lateral decubitus position, and of these, 23 (71.9%) preferred the worse-eye-dependent lateral decubitus position ($P=0.013$).

CONCLUSION: Our results suggest that the sleep position habitually preferred by glaucoma patients may be associated with greater VF loss.

Copyright © 2013 Elsevier Inc. All rights reserved.

Am J Ophthalmol. 2013 Dec 14. pii: S0002-9394(13) 00786-1. doi: 10.1016/j.ajo.2013.12.016.

PMID: 24345319

<http://www.ncbi.nlm.nih.gov/pubmed/24345319>