

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

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**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.

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