Risk factors for disease progression in low-teens normal-tension glaucoma

Baek SU (1,2) , Ha A (3,4) , Kim DW (5,6) , Jeoung JW (3,4) , Park KH (3,4) , Kim YK (7,4)

1 Department of Ophthalmology, Hallym University College of Medicine, Anyang, Korea.
2 Department of Ophthalmology, Hallym University Sacred Heart Hospital, Anyang, Korea.
3 Department of Ophthalmology, Seoul National University College of Medicine, Seoul, Korea.
4 Department of Ophthalmology, Seoul National University hospital, Seoul, Korea.
5 Department of Ophthalmology, Kyungpook National University School of Medicine, Daegu, Korea.
6 Department of Ophthalmology, Kyungpook National University Hospital, Daegu, Korea.
7 Department of Ophthalmology, Seoul National University College of Medicine, Seoul, Korea md092@naver.com.

BACKGROUND/AIMS: To investigate the risk factors for disease progression of normal-tension glaucoma (NTG) with pretreatment intraocular pressure (IOP) in the low-teens.

METHODS: One-hundred and two (102) eyes of 102 patients with NTG with pretreatment IOP?12 mm Hg who had

RESULTS: Thirty-six patients (35.3%) were classified as progressors and 66 (64.7%) as non-progressors. Between the two groups, no significant differences were found in the follow-up periods (8.7±3.4 vs 7.7±3.2 years; p=0.138) , baseline VF mean deviation (-4.50±5.65 vs -3.56±4.30 dB; p=0.348) or pretreatment IOP (11.34±1.21 vs 11.17±1.06 mm Hg; p=0.121) . The multivariate Cox proportional hazards model indicated that greater diurnal IOP at baseline (HR=1.609; p=0.004) , greater fluctuation of diastolic BP (DBP; HR=1.058; p=0.002) and presence of optic disc haemorrhage during follow-up (DH; HR=3.664; p=0.001) were risk factors for glaucoma progression.

CONCLUSION: In the low-teens NTG eyes, 35.3% showed glaucoma progression during the average 8.7 years of follow-up. Fluctuation of DBP and diurnal IOP as well as DH were significantly associated with greater probability of disease progression.

Br J Ophthalmol. 2019 May 4. pii: bjophthalmol-2018-313375. doi: 10.1136/bjophthalmol-2018-313375. ahead of print

http://www.ncbi.nlm.nih.gov/pubmed/31055450