

Yoshiaki Kitazawa, MD, PhD

Dr. Kitazawa discusses normal-tension glaucoma and disease management in Japan as well as his use of an antifibrotic agent.



1. Why do you think the prevalence of normal-tension glaucoma (NTG) is high among the Japanese?

We do not yet fully understand why NTG is more prevalent in this population. Evidently, it is not the matter of central corneal thickness. A recent epidemiological, population-based study¹ demonstrated that the central corneal thickness among the Japanese is not thinner than that in other ethnic groups. Interestingly, recent glaucoma prevalence studies such as Proyecto VER² and the Los Angeles Latino Eye Study³ indicated a significantly higher prevalence of NTG among Hispanics and Latinos than reported 1 decade ago.

I should also note that the prevalence of glaucoma in countries in the Far East is not yet clear and that we do not know whether a high prevalence of NTG is truly

limited to the Japanese population. At the glaucoma symposium held during the latest Asia Pacific Academy of Ophthalmology meeting, there was a report on an ongoing epidemiological glaucoma survey in Korea,⁴ the interim results of which indicate that the prevalence of NTG among Koreans is similarly high to that found in Japanese.

2. Do you employ any alternative treatments for NTG?

I prescribe oral Ca²⁺ channel blockers for NTG patients whose glaucomatous optic neuropathy is progressive or far advanced despite an IOP of 12 mm Hg or less. The drugs improve the quality of life of many of these patients by significantly reducing the incidence of migraine headache, retrobulbar ache, and even cold extremities. A recent double-masked, prospective study⁵ by researchers at The University of Tokyo demonstrated a beneficial effect of nilvadipine, a Ca²⁺ channel blocker, on visual field progression among subjects with NTG. I believe that there must be a place, no matter how limited, for these drugs in the treatment of this disease.

3. Based on your experience, of what importance are disc hemorrhages to the diagnosis and treatment of glaucoma?

A disc hemorrhage evidently indicates a negative prognosis in open-angle glaucoma, either with or without

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FAST FACTS

- Professor and Chairman (1985 to 2000) and Professor Emeritus (2000 to present) at the Department of Ophthalmology, Gifu University, Gifu, Japan
- Director of the Akasaka Kitazawa Eye Clinic in Tokyo, 2000 to present
- President of the Asia Oceanic Glaucoma Society, 1997 to present
- President of the Japan Glaucoma Society, 1998 to present
- President of the Glaucoma Society of the International Congress of Ophthalmology, 1994 to 1998
- Recipient of the Alcon Research Institute's Annual Award (1994), the Proctor Award from the University of California, San Francisco (1994), the Ocular Drug and Surgical Therapy Update Award of Appreciation (2000), the AAO's Secretary Award (2001), the Bartisch Award from the University of Dresden in Germany (2004), and the Goldmann Award from the Glaucoma Society of the International Congress of Ophthalmology (2005)

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out elevated IOP, although the sign is much more common in NTG than in primary open-angle glaucoma. The development of a disc hemorrhage during the course of glaucoma is a sign of an ongoing, active disease process and inadequate treatment. The presence of any causal relationship of disc hemorrhage to IOP control is unclear. Of note, a recent study⁶ from Japan has shown that the incidence of disc hemorrhage significantly decreases after the IOP has been stabilized by trabeculectomy, both in primary open-angle glaucoma and NTG.

4. What impact have imaging technologies had on the diagnosis and management of glaucoma in Japan?

Imaging technologies of the optic disc and retina have had a strong impact on glaucoma diagnosis in Japan. In particular, physicians often resort to imaging examinations when making a diagnosis of NTG where the evaluation of the optic disc and retinal nerve fiber layer is crucial. One problem in my country is that the prevalence of a myopic, deformed disc is quite high. Unfortunately, many imaging devices do not seem to have an adequate database for the optic discs of the Japanese population.

5. You were one of the first ophthalmologists to evaluate the role of mitomycin C (MMC) in glaucoma surgery. How does your current use of this agent compare to your initial expectations?

In Japan, ophthalmologists routinely employ MMC during glaucoma filtering surgery. That is, the agent is used perioperatively for the majority of initial surgeries. The introduction of this antifibrotic agent has undoubtedly much improved the success rate of IOP control 5 to 6 years after glaucoma filtering surgery.⁷ The use of MMC, however, does not seem to guarantee the lifelong survival of a filtering bleb but rather slows its scarring process to a clinically significant degree. □

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