

# Voting Session: Current Glaucoma Diagnosis and Treatment

**Moderators:** RN Weinreb, University of California, San Diego, USA  
GK Krieglstein, University of Cologne, Germany  
Y Kitazawa, Gifu University School of Medicine, Japan

**Panel:** A Antón-López, Hospital General de Segovia, Spain  
E Greve, Saint Lucas Andreas Hospital, The Netherlands  
J Liebmann, The New York Eye and Ear Infirmary, USA  
A Heijl, Malmö University Hospital, Sweden  
E Maul, Hospital Clínico Universidad Católica de Chile, Chile  
S Melamed, Goldschleger Eye Institute, Israel  
C Migdal, The Western Eye Hospital, UK  
S Seah, Singapore National Eye Centre, Singapore  
K Singh, Stanford University, USA  
M Wax, Washington University Medical Center, USA



The voting session was attended by delegates from Asia, Europe and North and South America. Each participant used a remote control handset to vote in the discussion. The focus was on issues in glaucoma management, and was attended by glaucoma specialists and general ophthalmologists. The participants were invited to vote on a variety of questions arising from the current treatment of glaucoma. The results were automatically tabulated, and the opinions of the expert panel were heard. The following is a brief summary of the discussion.

The vast majority of the audience agreed or strongly agreed that intraocular pressure (IOP) is important in the pathogenesis of glaucoma. Dr Wax felt

that IOP is important in the pathogenesis of many glaucomas and, even in glaucomas associated with normal pressure, there is evidence to suggest that there is a pressure component.

Again, there was overwhelming agreement from the delegates that early aggressive treatment has a positive outcome on the progression of glaucoma. Dr Liebmann commented that patients with more severe disease should have more aggressive therapy.

In answering the question about whether claims of a neuroprotective effect based on *in vitro* and animal studies influences their prescribing patterns for the treatment of glaucoma, approximately half the delegates were influenced by a possible neuroprotective effect.

Prof. Melamed said that some drugs do have a neuroprotective effect *in vitro* or in animal models, but clarified this by mentioning that no drug has a proven *in vivo* neuroprotective effect in glaucoma.

Dr Singh suggested that research into this area should continue and will add to our knowledge in the future. However, as all the current glaucoma medications were developed to lower intraocular pressure, it would be surprising to find they were also neuroprotective.

Most of the delegates disagreed with using techniques to measure ocular blood flow in office practice. Dr Migdal commented that the currently available techniques measure some aspects of ocular haemodynamics, but not the blood supply to the area of the optic nerve. While this has some relevance to our understanding of disease, there is no practical relevance. The machines are expensive, and cheaper versions may have less relevance to the management of glaucoma patients.

When asked which drug they choose as a first-line treatment for a 60-year-old patient with primary open angle glaucoma with an early field defect without concurrent medical problems most delegates preferred a non-selective  $\beta$ -blocker. Second choice was a selective  $\beta$ -blocker or prostaglandin derivative, with only a few votes for  $\alpha_2$ -agonists and topical carbonic anhydrase inhibitors.

Dr Maul preferred a non-selective  $\beta$ -blocker, while Prof. Greve was restrained by the drug regulations in his country to give a  $\beta$ -blocker first, followed by a prostaglandin derivative or add-on therapy. However, his preference was for monotherapy.