Subspecialty: Glaucoma

Prof Catherine J Liu (Taiwan)

- **Rescuing the failing bleb**

Prof Liu is Professor National Yang-Ming University School of Medicine, and Director Glaucoma Service, Department of Ophthalmology, Taipei, Veterans General Hospital Taiwan.

Prof Liu's presentation will focus on rescuing the failing bleb. "Unlike other ocular surgical procedures in which complete wound healing is desirable, glaucoma filtering surgery aims for incomplete wound healing which allows aqueous humour drainage from the anterior chamber into the sub-conjunctival space."

"The wound-healing process encompasses the stages of inflammation, proliferation, and remodelling. Since long-term topical glaucoma therapy induces clinical or sub-clinical inflammation – with increased inflammatory cells and fibroblasts in the conjunctiva – rescuing the failing bleb actually starts from the preoperative period," she says.

"Intra-operative use of antimetabolites, avoidance of intra-operative bleeding, and the building of a safer trabeculectomy (which results in less complications) helps achieve a favourable intraocular pressure (IOP) outcome."

After surgery, the application of steroids/antimetabolites, releasable suture removal/laser suture lysis, and bleb needling (with a variety of adjuncts) work to regain IOP control in eyes with threatening surgical failure. Prof Liu's presentation will include a brief review of available evidence in the literature and a discussion of unresolved questions.

Prof Ki Ho Park (Korea)

- **Practical update in iridotomy**
- **Disc Haemorrhage**

Practical update in iridotomy

"In angle closure glaucoma, laser treatment is performed in order to restore the anatomic configuration of the anterior chamber angle or to prevent angle closure. Laser peripheral iridotomy (LPI) is performed for removal of the pupillary block component. LPI relieves pupillary block by making a hole in the peripheral iris and eliminating the pressure gradient between the posterior and anterior chamber."

"Argon laser, Nd:YAG laser, or combining both lasers can be used. The Nd:YAG laser has the advantages of using less total energy and showing a less frequent closure rate of the hole, compared to the argon laser. However the frequency of iris bleeding is higher in the Nd:YAG laser compared to the argon laser."

"After argon LPI, the margin of the hole is usually clear but thick, while after the use of the Nd:YAG laser, the margin of the hole is thin, but rather ragged. Recently, LPI by combining both lasers (argon followed by Nd:YAG) has been used more frequently for prevention of iris bleeding, to lower the clo-

sure rate of the hole, and to minimise corneal damage by applying less total energy."

Prof Park's presentation will also explain why the Abraham iridotomy lens is most commonly used, and why different laser techniques should be applied according to the nature of the iris.

Disc Haemorrhage

Disc haemorrhage is a well-known risk factor for glaucoma progression. "If there is a single disc haemorrhage, the risk of progression increases about two times after two to three years. And if there are recurrent disc haemorrhages, the risk increases two-fold compared to the single haemorrhage cases."

"The disc haemorrhages are known to be detected more frequently in normal tension glaucoma cases compared to the open angle glaucoma with high intraocular pressures (IOPs). This reflects that there exists IOP-independent risk factor in the pathogenesis of glaucoma," says Prof Park.

"Our recent study revealed that if the disc haemorrhage is detected in patients with normal visual fields and normal fundus photographs, the retinal nerve fibre layer thickness – measured by optical coherence tomography (OCT) – is thinner compared to normal healthy eyes without haemorrhage. This reflects the fact there has already been subclinical optic nerve damage in those patients."

Note: All effort has been made to check facts with each presenter. The writer accepts responsibility for any inadvertent errors in transcript.