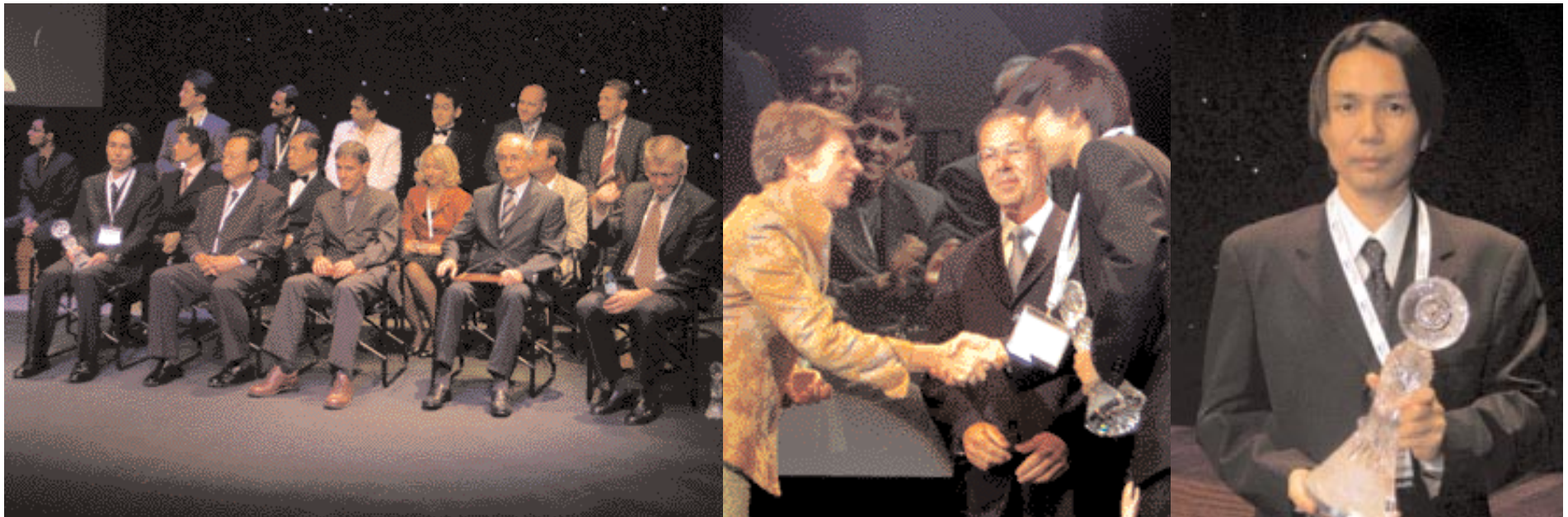


Slow motion phaco wins video competition

The overall winner of this year's ESCRS/Alcon Video Competition was Teruyuki Miyoshi MD, Japan, for his video "Ultra high speed images of the phaco tip under different power modes".



IN their video, Dr Miyoshi and colleagues used an ultra-high-speed digital video camera - which has a speed of up to 250,000 frames per second- to visualise the vibration of the ultrasound tip. With this approach they were able to demonstrate the superior follow-ability of the nucleus with hyperpulse mode phacoemulsification compared with continuous mode.

Dr Miyoshi and his associates were able to clearly capture the images of the vibrating tip of the ultrasound probe, showing the phenomenon of cavitation. In addition, using chestnuts and an explanted human cataract in a special test chamber, they showed how chattering- a phenomenon where the cataract appears to be repelled by the phaco tip - will occur in continuous mode phaco but not in hyperpulse mode phaco.

The video also demonstrated that in hyperpulse mode there occurs a new phenomenon called hyper-follow-ability, in which the nuclear fragments rotate at the tip of the phaco probe.

"We succeeded in visualising the vibrating motion of the ultrasound tip as well as the phenomenon of 'cavitation'. As a result, we were able to prove that chattering motion occurs in continuous mode, and 'hyper-follow-ability' of the nucleus in the hyperpulse mode," Dr Miyoshi said.

Educational category

First prize in the Educational category went to Takehsi Sugiura MD, Japan, for "Vertical divide vs. horizontal divide", a video that compares the vertical central divide technique with the horizontal phaco-chop, divide technique. Using computer graphics and a variety of case studies, the presentation explains the theory behind the technique and illustrates its advantages.

Second Prize in the Educational category went to Burkhard Dick MD, Germany, for his video "Pearls and tricks for implantation of the foldable iris-fixated phakic IOL". Third prize went to Thomas Kohnen MD, Germany, for "Teaching the use of the Verisyse toric phakic IOL".

Innovative category

In the Innovative category, Tsunoto Hara MD, Japan, took the first prize for "Endocapsular equator ring in the human eye." The video demonstrates the efficacy of a silicone made closed endocapsular equator ring with square edge in preserving posterior capsule transparency after cataract surgery

The second prize in the Innovative category went to Mittanamali Sridhar MD, India, for "Acute corneal hydrops treated by intracameral perfluoropropane gas". Third prize went to Amar Agarwal MD, India for "Gas forced infusion".

New contributors

First prize in the New contributors category went to Tanja M Rabsilber MD, Germany, for "Different methods for IOL calculation after refractive surgery". Her video evaluated new IOL calculation software, called OKULIX, in 12 eyes of eight patients with a history of excimer laser treatment. The software does not require the original pre-refractive values.

Second prize in the New contributors category went to Jose L Velarde MD, Spain, for "Can small grease debris observed on a component of microkeratome have incidence on diffuse lamellar keratitis". Third prize went to Alexey N Ulyanov MD, Russia, for "Hydrodissection canula for microincision cataract surgery".

Scientific category

First prize in the Scientific category went to Guy Kleinman MD, USA, for his video "A break in the lens". Their presentation described the occurrence of linear deposits on a hydrophilic acrylic IOL (ACR6D) following injection through a hexagonal cartridge. They also demonstrate that the deposits do not occur on the lenses when injected through a round cartridge

Second prize in Scientific category went to Kamiar Mireskandari MD, UK, for "A new model of cataract surgery, digital imaging and software analysis to investigate

posterior capsular opacification in the rabbit". Third prize went to Hideharu Fukasaku MD's "Surgical treatment of keratoconus".

Special cases category

First prize in the Special cases category went to Minami Noriyoshi MD, for "Some pitfalls of hydrodissection, a method apparently assumed to be highly safe". The video uses side view cinematography in a pig's eye undergoing phacoemulsification to show that irrigation fluid flows more easily and heavily into the posterior chamber during such procedures than expected and that supporting tissues such as the zonular fibres anterior vitreous membrane were easily detached after hydrodissection.

Second prize in the Special cases category went to Carlos Figueiredo MD, Brazil, for "Taking the lid off the Argentinian flag". Third prize went to Sima Pavlovic MD, Germany, for "Reposition of intraocular lenses luxated in the vitreous".

The ESCRS Video Competition was sponsored by Alcon Laboratories. All attendees at the ceremony received a free DVD of the winning videos.

