

Kreissig Award recipient delivers keynote lecture on the prevention of PVR and its recurrence

Gearoid Tuohy PhD
in Barcelona

VITREORETINAL surgeons now have many techniques available to help reduce the risk of primary failure of retinal detachment surgery, which in turn can help reduce the rate of proliferative vitreoretinopathy, according to Stanley Chang MD, Edward S Harkness Professor and Chairman of Ophthalmology at Columbia University, New York.

Dr Chang received the 2005 Kreissig Award at the recent 5th EURETINA Congress. In a lecture following the award, he described PVR as a disease for which the selection of treatment options is often based on the severity and location of the PVR and retinal break or breaks.

He noted that scleral buckling alone could often be successful if the surface membranes involved do not prevent closure of retinal breaks. However, pars plana vitrectomy with the removal of membranes mechanically is the main treatment option when the retina immobile and too stiff to smooth on a scleral buckle.

Although many features of PVR are outside the control of the surgeon Dr. Chang referred to studies conducted by Drs Conway and Campochiaro at the Department of Ophthalmology, University of Virginia Health Sciences Centre, Charlottesville, Virginia. Their work on the clinical risk factors for proliferative retinopathy identified primary vitrectomy as one of the risk factors that increases the risk for the development of PVR in the management of retinal detachment.

Modifiable risk factors

To illustrate the surgical management issues that would represent modifiable risk factors capable of influencing the surgical outcome, Dr Chang went through a number of case studies of retinal detachment that resulted in PVR. Describing each case in detail Dr. Chang identified various alternative surgical choices that might influence the outcome for a patient either in direct or indirect economic costs or in final result or both.

In summarising the cases Dr. Chang told the audience “each case demonstrates that features of retinal detachment may not prevent the development of PVR. However, by choosing the appropriate approach with careful surgical techniques to reattach the retina reduces the risk of primary failure and the subsequent development of PVR. What’s important is to find all the retinal breaks and support them with the scleral buckle”.

Dr Chang addressed the issue of recurrent PVR in which it was acknowledged that we have probably reached the limits of mechanical intervention and that it may be prudent to look for new approaches on the pharmacological frontier. An example of one such agent under current development involved the use of molecular genetic constructs to interrupt the course of cell division in the specific cells involved in PVR.

Dr. Chang, currently at Columbia University, is recognised as a pioneer in the field of retinal surgery with special expertise in vitrectomy and management of

PVR. PVR involves the proliferation of avascular fibrocellular retinal membranes associated with rhegmatogenous retinal detachment.

Pioneering contributions to vitreoretinal surgery

The 2005 Kreissig Award honours Dr Ingrid Kreissig’s contribution to the field of ophthalmology. Prof Rosario Brancato of the Department of Ophthalmology and Visual Sciences, University Hospital San Raffaele, Milan, presented the award to Dr. Chang in recognition of his pioneering contribution to several revolutionary surgical approaches to treat complicated retinal detachments – surgical approaches and advances which have improved the outcome for patients worldwide.

Dr Chang was the first to use perfluoropropane gas in the management of retinal detachment made worse by scar tissue proliferation and has made a major contribution to the development of perfluorocarbon liquids for vitreoretinal surgery



Stanley Chang

ingeneral. He also participated in developing a panoramic viewing system to aid visualization during vitreoretinal surgery.

Dr Chang described Prof Kreissig, currently at the Dept. of Ophthalmology Faculty of Clinical Medicine, Mannheim, University of Heidelberg, Germany, as one of the icons of global and European retinal surgery and paid tribute to the wealth of new knowledge and pioneering advances brought to the field of retinal surgery through her long and distinguished career.

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