Ground-breaking congress to explore progress in diagnosis and treatment of keratoconus

François Malecaze

KERATOCONUS experts from all over Europe will gather in the southern French city of Toulouse later this year for a timely update on advances in research and treatment of this debilitating ocular pathology.

The one-day congress, the first of its kind ever to be held in Europe, is being organised by the newly designated French Centre de Référence du Keratocône.

"I think it’s the perfect time for such an initiative because there is so much happening in the various fields of keratoconus research at the moment," said François Malecaze MD, one of the organisers of the event. "It’s probably fair to say that research into this disease is at the beginning of a major turning point in its evolution, so now is the right time to share our respective experiences on keratoconus and post-surgery ectasia."

As a mark of the growing importance being attached to keratoconus at a governmental level, the French Ministry of Health recently designated two centres - the ophthalmology clinics in CHU Toulouse (Prof Malecaze) and CHU Bordeaux (Prof Joseph Colin) - as official reference centres for the disease in France.

One of the major themes for this year’s congress is post-surgical ectasia, which remains a severe but rare complication of modern refractive surgery. While progress has been made in recent years in establishing risk factors for the disease, Dr Joseph Colin notes that there is still much that needs to be determined if the incidence is to be reduced further.

"We know that some risk factors are well defined, such as a corneal topographic asymmetry, a thin cornea of less than 500µ or a stromal residual bedding of less than 250µ. The existence of a family history of keratoconus is also a risk factor. However some cases of ectasia have been observed without any known risk factors and conversely some patients showing a risk have been treated with LASIK without developing ectasia. This first European congress will allow us to share our respective experiences on keratoconus and post-surgery ectasia," he said.

Dr Malecaze added that the scientific programme at Eurokeratocone 2007 will reflect the current state of research in keratoconus and the major advances made in treating the disease in recent years.

"I think it is important first and foremost to mention that all these advances have been made possible thanks to a better knowledge of the innermost structure of this mysterious dystrophy. The advance of paraclinical exploration initially, and most importantly of the topography of the cornea, have allowed us to make more and more precise detection of "forme fruste" forms of keratoconus, which are real nightmares for the refractive surgeon. More recent technologies such as aberrometry, Scheimpflug rotating camera, and ongoing genetic studies are also helping us with the diagnosis and treatment of this pathology," he said.

He also noted that contact lens science has made significant progress in recent years, with the development of better fitting lenses that can be adapted to the unusual curvatures of keratoconus, offering impressive safety, quality of vision and comfort.

"At the very least this allows us in certain cases to postpone for as long as possible the need for surgery which is often dreaded by our young patients," he said.

For patients with advanced keratoconus, the prognosis has also improved greatly in the last few years, said Dr Malecaze. "For the one-fifth or so of patients who need a corneal graft, surgical transplantation has considerably evolved too thanks to the rapid expansion of lamellar transplantations which today allows us to keep the patient's endothelium and thus lessen the risk of rejection as much as possible," he said.

The Eurokeratocone Congress will also hear the latest news concerning the ongoing clinical trials of collagen cross-linking, a technique that has delivered promising early results in helping to stabilise biomechanically compromised corneas. Other particularly relevant topics include an update by Dr Colin on the use of the femtosecond laser to create intrastromal channels for Intacs insertion, and also a discussion on the use of phakic implants in keratoconus patients by Beatrice Cochener MD.

As well as a wide-ranging scientific programme, the Eurokeratocone Congress will include also active participation from patients’ groups from all over Europe. There will be workshops dealing with practical issues of lens fitting and the surgical treatments for keratoconus, as well as exchanges of patient experiences and advocacy issues.

Patients will also have the opportunity to discuss the latest treatment options and future avenues of research with leading European experts in the field.

The Eurokeratocone Congress takes place in Toulouse, France, on November 30, 2007. Further information on the programme and registration forms are available at www.keratocone.eu.

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