Premature birth predicts later cataract problems

Dr Weiser, in private practice in Paris, France, said, "Historically, premature birth and retinopathy of prematurity, put adult patients at a substantially increased risk for developing cataracts at a younger age, and for developing post-surgery complications such as retinal tears and detachments, reported researchers at the annual meeting of the Association for Research in Vision and Ophthalmology (ARVO).

Because of this increased risk, cataract surgeons should ask their adult patients if they were born prematurely, even when retinas appear healthy in fundus images prior to cataract removal, according to Gregory Fenton, MD, Wills Eye Institute, Philadelphia, Pennsylvania.

In general, patients who have a history of ROP are known to have increased incidence of retinal complications, retinal tears and detachments later in life. Researchers questioned whether premature birth alone, even without ROP, could indicate increased risk, he told EuroTimes in an interview.

Researchers had access to a large, long-term database of adult patients who had a history of premature birth. The goals were to determine the age of onset of cataract of patients with a history of ROP, determine what the visual results after cataract removal were, and rates of complications.

A retrospective chart review was done of patients with a history of prematurity, but who had presented as adults to one of two clinics: the Wills Eye Institute (W EI) and the Beaumont Eye Institute (BEI). A total of 49 eyes of 36 patients from Beaumont (between the years 1982 to 1998), and 17 eyes of nine patients (from years 1965 to 1995) from W EI were included. All patients had a birth weight of 2200 grams or less, or had gestational age of 32 weeks or less. Overall, patients had a median follow-up of 9.9 years with some being followed-up for 38 years.

Overall, a total of 66 eyes from 45 patients underwent cataract surgery, and 37 eyes had minimal cicatricial changes from ROP. A total of 25 eyes (38 per cent) had at least one line of improvement in vision, 20 (30 per cent) had no change in vision and 21 (32 per cent) had a decline in vision post-cataract removal.

Postoperative complications of a retinal tear or retinal detachment occurred in 15 of the 66 eyes (23 per cent), and rates between both centres were similar, researchers reported.

"That is a very high percentage relative to cataract surgery done on ‘normal’ patients," Dr Fenton said.

Speaking at the annual meeting of the French Implant and Refractive Surgery Association (SAFIR), Dr Weiser said that he is convinced that the trend towards microincision surgery will continue apace.

"Bearing in mind the fact that there is a clear merging of cataract and refractive surgery, with an improved ability to control induced astigmatism and with better quality of multifocal implants than ever before," Dr Weiser said that we will see incisions of less than 2.2mm becoming standard.

Dr Weiser noted that while bimanual phaco has grown in popularity in recent years, the approach is not without its drawbacks.

"There is a considerable learning curve over bimanual phacoemulsification, it requires specific, expensive surgical instruments and the incisions are less watertight. Moreover, the fluids are less stable because of the reduced infusion flow rates, with an increased risk of thermal burn, and no proven benefit in terms of safety and results compared to microcoaxial phaco," he said.

Dr Weiser added that currently available intracapsular implants suitable for bimanual surgery have not been clinically proven over time, notably in terms of decentration rates and resistance to posterior capsule opacification.

By contrast, Dr Weiser said that microcoaxial phaco offers clear advantages over bimanual phaco in terms of learning curve, instrumentation, infusion flow rates, incision integrity, and compatibility with full size IO L implantation.

"There is no modification of surgical technique, so there is no steep learning curve with this approach. It works for all grade of cataract and there is no need for specialised equipment. The fact that we can use classic phaco infusion means a more stable anterior chamber and the ability to use higher phaco parameters if necessary," he said.

Turning to recent advances in microcoaxial techniques, Dr Weiser noted...