Bilateral simultaneous implantation of new apodised multifocal yields high patient satisfaction

Stefanie Petrou Binder MD
in Paris

THE Alcon Restor SA60D3 IOL can provide good distance and near vision and high patient satisfaction after simultaneous bilateral cataract surgery and bilateral implantation, according to a study presented at the XXII Congress of the ESCR.

"Aside from a strong patient preference for bilateral simultaneous surgery, it is also more efficient in the operating theatre and there are no increased risks to the patient. The outcome at three weeks undoubtedly reveals reduced spectacle dependence for immediate tasks and minimal night-vision disturbances," reported Richard Packard MD.

Dr Packard performed simultaneous, bilateral cataract extraction and implanted the SA60D3 multifocal IOL in 50 patients at the Wellington Hospital, London and the Princess Christian’s Hospital, Windsor.

Thirteen patients underwent surgery for refractive purposes alone and 37 were cataract patients.

The patients were non-randomised and elected to have the surgery. The mean age was lower than is normal for cataract surgery, at 51 years. Dr Packard corrected from -6.5 D to +6.25 D spectacle correction, with astigmatism up to 2.5 D. The study patients included 20 hyperopes, 14 myopes, and 16 astigmatics.

At three weeks, binocular uncorrected vision was 20/25 or better in 98% and 20/20 or better in 85% of patients. Five patients need to wear glasses some of the time for computer work. Four saw halos at night, only one of which was troublesome. Forty-four patients felt that they did not have any problems at night. All patients were happy with their near vision, but due to the nature of the optics of the IOL, five would have liked a longer reading distance.

Dr Packard performed limbal relaxing incisions in 17 patients all of whom saw 20/25 or better. A further 11 patients required a piggyback lens using the Alcon MA60MA to enhance the range of the lens and achieve mean near acuity of J2. One patient revealed a very transient rise in IOP post-operatively. Three piggyback IOL patients experienced a more significant rise in IOP due to insufficient viscoelastic removal, and required treatment before the pressure settled.

High patient satisfaction

Almost all, 48 of the 50 patients, said the surgery was a success. They reported being satisfied with both the surgery and the Restor lens, in spite of the associated costs (1500 Euros). Of the two patients for whom the result was not satisfactory one had AMD not seen prior to cataract surgery and only read J3 unaided but saw 20/20 for distance unaided. The other had residual astigmatism and is due for more surgery to deal with this.

The Restor IOL is designed to give good distance and near vision by using a combination of refractive and diffractive approaches, Dr Packard explained. On the surface the 3.6 mm central diffractive area is constructed with variability between the height of steps and step size. This allows light to be focused at different focal lengths inside the eye.

At night, the IOL serves to minimise any night vision halos and visual phenomenon. The step heights peripherally decrease from 1.3 microns to 0.4 microns.

Dr Packard highlighted that patient preference in favour of bilateral simultaneous surgery, although in itself not the most important aspect, nevertheless decreased costs for patients and required only one intervention.

He said that there was minimal if any increased risk to the patient, as verified by a study by David Chang MD who showed in his literature review of 2003 that there was no evidence of increased risk of any kind in bilateral surgery.

"In this study group, the patients all had rapid visual recovery and the ability to utilise the cortical adaptation which is required by the Restor IOL when performing bilateral surgery," he stated.

The basic standards of bilateral simultaneous surgery consist of doing two totally separate procedures, Dr Packard explained. The surgical team must change everything, from the instruments, to the draping and tubes. He stressed a particularly meticulous approach to preparing the eye, which although belonging to standard preoperative procedure, was all the more important in bilateral simultaneous surgery.

Richard Packard MD FRCS FRCOphth
eyequack@vossnet.co.uk