PHACO AND VITRECTOMY
Pros and cons of combined procedure debated at 17th ESCRS Winter Meeting
by Roibeard O’hEineachain in Warsaw

The question of whether patients with cataract who require vitrectomy should undergo a combined procedure remains a contentious one, according to speakers at a debate held at the 17th ESCRS Winter Meeting. Taking the view that the lens was an obstacle to vitrectomy procedures, Simonetta Morselli MD, San Bassano Hospital, Bassano del Grappa, Italy, argued that removing the lens during the vitreoretinal procedure was the best option.

“Phacovitrectomy is a safe and effective procedure because it provides visibility of the retina and facilitates inner limiting membrane peeling. However, it is an educational process for the anterior and posterior segment surgeons,” she said.

She added that combining pars plana vitrectomy and cataract surgery may be especially indicated in elderly patients because they are highly prone to the development or progression of cataract after pars plana vitrectomy.

Dr Morselli noted that cataract formation occurs after pars plana vitrectomy in around three-fourths of patients over the age of 60 years of age but in only a very low proportion of patients younger than 40 years.

She cited a study carried out by Gisbert Richard MD and his associates in Hamburg. The prospective interventional series involved 230 consecutive patients with a mean age of 65 years who underwent combined pars plana vitrectomy and cataract surgery. The indications for vitrectomy included idiopathic epiretinal membranes in 160 patients and epiretinal membranes secondary to a range of conditions including diabetic retinopathy, previous retinal surgery, branch retinal vein occlusion uveitis and trauma in 70 patients. At mean follow-up of 1.5 years 82 per cent had an improvement in their visual acuity after surgery, seven per cent remain unchanged and 11 per cent had a reduction in their visual acuity.

In the diabetic retinopathy patients, mean visual acuity improved in 73 per cent of eyes and the retina was reattached in 90 per cent. There was residual peripheral retinal detachment in the remaining 10 per cent. Complications included posterior synechiae in 13 per cent, iris capture in three per cent and vitreous haemorrhage in 10 per cent.

The advent of 23 gauge vitrectomy has made combined sutureless phaco vitrectomy a more attractive option since both parts of the procedure use small self-sealing wounds. It therefore has the potential to reduce surgical trauma and thereby reduce postoperative inflammation leading in turn to a faster postoperative recovery.

Good candidates for 23-gauge sutureless phaco vitrectomy include eyes of vitreous haemorrhage macular pucker macular hole. Bad candidates for combined sutureless phaco vitrectomy include eyes with blue or thin sclera, eyes that have been traumatised.

Dr Morselli noted that to be successful, the cataract surgery must be atraumatic in order to avoid any corneal oedema, which could reduce visualisation. Complications occurring during cataract surgery may lead to problems during vitrectomy.

Useful barrier
Barbara Parolini MD, Istituto Clinico, Santa Anna, Brescia, Italy contended that the lens is in fact the increased rate of cystoid macular oedema it appears to induce. She noted that in two retrospective studies she carried out, the incidence of cystoid macular oedema was nearly twice as high among those who underwent a combined cataract and vitrectomy surgery compared to those who underwent vitrectomy alone.

In the first retrospective series, which involved 193 patients who underwent epiretinal membrane peeling, the rate of postoperative cystoid macula oedema was 14.4 per cent among those who underwent a combined procedure compared to a rate of only 7.8 per cent among those who underwent vitrectomy alone. In the second study, the rate of cystoid macular oedema among the combined procedure group was 12 per cent, compared to only eight per cent among those undergoing vitrectomy alone.

“Treatment of these cysts is very difficult. They do not respond to nonsteroidal anti-inflammatory drops, oral steroids, steroid drops or subconjunctival drops. We’ve had reasonable results with prednisolone 10mg steroid procedure or intra-vitreal Ozurdex,” Dr Parolini said.

She noted there are some cases where it is necessary to have the lens out of the way to perform vitreoretinal surgery. They include cases of macular hole and those where the surgeon performs a peripheral retinotomy. However, performing both procedures at once may be too strong of a shock for the retina to withstand in some cases.

“We induce too much inflammation if we do both procedures at the same time. Therefore, the recommended sequence is to remove the cataract first, allow the eye to recover and then perform the vitrectomy,” she concluded.