Combined cataract surgery and anti-VEGF treatment promising

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in Heidelberg

Patients who underwent cataract surgery and IOI implantation combined with an anti-VEGF treatment appeared to benefit from the approach, with few complications, according to a German study presented at the Congress of the DGI (German-speaking Society for Intraocular Lens Implantation, Interventional and Refractive Surgery).

Susanne Billwitz MD investigated the safety and efficacy of a combined anti-VEGF/second surgical procedure in 20 patients, 13 of which had age-related macular degeneration and seven of which had diffuse diabetic macular edema. The average patient age was 77 years. In addition to drying up 50 per cent of exudative macular disease with one shot, the combined approach improved vision in 16/20 patients, she reported.

“Almost all of the patients benefited from the combined approach. In particular, patients with persistent DME who underwent previous laser coagulation treatments can frequently experience rebound effects, and thereby benefit from combining cataract surgery with an intravitreal anti-VEGF injection. Re-injection was necessary in only 50 per cent of the patients,” said Dr Billwitz, Vivantes Klinikum, Nueklein, Berlin, Germany.

All of the study participants had clinically significant, sight-limiting cataracts. The AMD patients showed classic subfoveal choroidal neovascularisation. The investigator diagnosed the exudative maculopathy using fluorescein angiography. She followed the patients for 16 weeks.

Dr Billwitz performed phacoemulsification surgery and implanted a “blue-filter” posterior chamber lens, under topical anaesthesia. This was followed by an intravitreal injection through the pars plana at 3.5 mm distance from the limbus, of 0.3 mg ranibizumab (Lucentis, Genentech/Novartis) or 1.25 mg bevacizumab (Avastin, Genentech/Novartis).

The overall preoperative visual acuity of the AMD group improved from an average of 0.15 to 0.24 four weeks after surgery. In the DME patients, visual acuity improved from 0.1 preoperatively to 0.31 after surgery. Both groups had visual acuity improvements that were statistically significant, Dr Billwitz noted.

In 50 per cent of the patients with AMD, a dry retina was documented. The other half of the patients were worse either angiographically or clinically, after roughly four weeks, requiring additional anti-VEGF treatments.

In the diabetic group, all of the patients improved in 50 per cent of the patients with AMD, a dry retina was documented. The other half of the cases were diagnosed as wet, when in fact they were dry. Later, after cataract surgery and anti-VEGF injection, they were in fact determined to be dry, clinically, she said.

Albert Augustin MD, the DGI session’s chairperson, commented that although three injections were generally applied, it was not a strict rule. An individual patient may present with a dry retina after one Avastin injection, as well, if that is all he needs.

Visual acuity results were very good, overall, Dr Billwitz emphasised. Vision improved in nine AMD patients, remained unchanged in one, and was worse in three DME patients. By contrast, visual acuity was better in all seven of the DME patients.

Dr Billwitz explained that roughly half of the trial patients had already undergone treatments with anti-VEGF monotherapy, PDT monotherapy, numerous PDT/triamcinolone treatments, or Avastin/triamcinolone applications. Most of these took place as off-label Lucentis treatments, she said.

Combined treatment of cataract surgery and intravitreal anti-VEGF can therefore be to their advantage. Overall, half of the patients clearly profited from the procedure, she observed. Furthermore, she noted no intra- or postoperative complications.

VEGF inhibitors inhibit both angiogenesis and oedema development. This is particularly significant in patients with diabetic macular edema, as corroborated by the results, she noted. The DME patients underwent intensive therapy with grid-laser coagulation prior to the study and had retinal thickening on HRT-retina module images. As compared to laser coagulation, using intravitreal injections did not lead to visual field defects, she noted.

The advantages of the combined therapy of phaco/PCL and anti-VEGF included a better fundus view for diagnostics and therapy, no additional procedure for patients, and better visual results and therefore higher patient satisfaction.

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