



Hakan Kaymak

# Two studies find a strong rationale for combination treatments in AMD

Dermot McGrath  
in Nice

WITH so much attention in recent years focussed on the performance of anti-VEGF compounds in the treatment of age-related macular degeneration (AMD), is there still a role for photodynamic therapy (PDT) in the treatment regimen of today's AMD patients? The answer is emphatically yes, according to the authors of two studies presented at the 9th EURETINA Congress.

"Combination therapies which target all the various components of AMD – intravitreal triamcinolone for the anti-inflammatory effect, PDT for the vaso-occlusive effect and anti-VEGF therapy to inhibit VEGF – is significantly more effective and safer than PDT monotherapy in the treatment of CNV secondary to AMD," said Süleyman Kaynak MD, Dokuz Eylül Faculty, Izmir, Turkey.

**All patients underwent ophthalmic examination, fluorescein angiography and OCT before and after treatment, with a mean follow-up of 12 months in group one and 11 months in group two.**

Dr Kaynak said that combination therapy offers two main advantages in the treatment of exudative AMD: greater medical effectiveness compared to monotherapy as well as greater overall cost effectiveness.

Dr Kaynak noted that AMD is a multifactorial disease and physicians should therefore aim to treat as many of the relevant factors as possible.

Dr Kaynak's study included 80 eyes of 80 patients diagnosed with CNV secondary to AMD between January 2005 and July 2008.

The patients were divided into two groups: group one, in which 40 patients received photodynamic therapy only, and group two of 40 patients who received combination treatments comprising 4mg intravitreal triamcinolone (IVTA) injections, followed by PDT and then anti-VEGF injections of 1.25mg bevacizumab in 20 eyes and 0.3mg pegaptanib sodium in 20 eyes four days after the IVTA injection. All patients underwent ophthalmic examination, fluorescein angiography and OCT before and after treatment, with a mean follow-up of 12 months in group one and 11 months in group two.

The decrease in vision of less than three lines in group one patients was 67 per cent

and group two 87 per cent at the six-month mark, and 56 per cent and 80 per cent after one year respectively, reported Dr Kaynak. At 12 months, central foveal thickness decreased an average of 50µm in group one and 125µm in group two based on pre-treatment measurements. The mean number of PDT sessions was 2.00 in group one and the mean number of combined treatment sessions was 1.15 in group two.

Summing up, Dr Kaynak said that tri-therapy for the treatment of AMD with CNV decreases the frequency and number of treatment sessions for an improved visual prognosis for patients.

The beneficial role of PDT in combination with anti-VEGF therapy was also highlighted by Hakan Kaymak MD, who presented the results of a retrospective non-randomised study carried out at Bundesknappschafts Hospital Eye Clinic in Sulzbach, Germany.

Dr Kaynak's study included 115 eyes of 110 patients with exudative AMD, 56 of whom received an intravitreal injection of bevacizumab only and the other 59 a combination of PDT followed by bevacizumab injection two days later.

Patients underwent visual acuity, OCT, and fluorescein angiography checks at baseline and at four, 12 and 25 weeks postoperatively. The need for re-injection was also controlled every month.

The results after six months showed that macular thickness decreased by about 150µm in both groups with no statistically significant difference between patients in the monotherapy or combination therapy groups. Both groups of patients showed a similar mean decrease in lesion size over the follow-up period and a similar improvement in mean visual acuity.

The key difference between the two groups, however, was the indication for retreatment at the end of the six-month follow-up point, said Dr Kaymak.

"There was no indication for retreatment in 78 per cent of the patients treated by a combination of PDT with Avastin injection compared to 41 per cent of the patients

treated by Avastin injection alone. This is the main take-home message – the combination of PDT with Avastin injection seems to be advantageous because of fewer

retreatments, which means less risk of complications and less costs," he said.

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