

Sir,
Short-term changes of visual hallucinations after intravitreal injection of ranibizumab in neovascular age-related macular degeneration

Visual hallucinations are frequently reported by patients with severe forms of age-related macular degeneration (AMD). The phenomena, which are also known by the eponym Charles–Bonnet syndrome,¹ have also been described in AMD patients after treatment including macular photocoagulation,² photodynamic therapy,³ limited macular translocation,⁴ and intravitreal Bevacizumab (Avastin) injection.⁵ Our study aims to describe the occurrence and course of visual hallucinations after intravitreal Ranibizumab (Lucentis) injection.

Case report

One hundred consecutive patients with AMD were interviewed 1 h before Lucentis injection and 2 weeks after administering a standardized questionnaire. Exclusion criteria were score ≤ 8 on Abbreviated Mental Test and corrected LogMAR visual acuity (VA) ≥ 1.0 in the better eye. At 1 h before and 2 weeks after the injection, each patient was asked whether they observed any luminous or coloured visual phenomena or experienced any visual hallucinations.

Patients with unstructured visual phenomena such as coloured, white, or dark patches, lights, stars, or other unstructured shapes were classified into group I. Patients with structured hallucinations such as faces, flowers, and people were classified into group II and those without visual hallucinations into group III. (See Table 1 for the results.) One of the patients from group III who developed unstructured visual hallucinations for the first time, an 86-year-old woman, described seeing green and pink unstructured shapes occurring every half an hour since the injection. Her VA was 0.78 pre- and 0.98 post-injection in the treated eye, and 0.78 unchanged in the non-treated eye. The second patient, an 84-year-old woman, started seeing cloudy black spots with flashes of lights a few times every day since the injection. Her VA was the same pre- and post-injection: 0.54 in the treated eye and 2.0 in the non-treated eye. All patients were aware of the unreality of the events.

Comments

Our preliminary results demonstrated that Ranibizumab treatment may improve or at least prevent worsening of visual hallucination in patients with wet AMD in the short term. We recommend further work to define the long-term results.

Conflict of interest

The authors declare no conflict of interest.

Acknowledgements

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Table 1 Visual hallucinations during the first 2 weeks after the injection

	Group I	Group II	Group III
Number of all patients in each group	11	4	85
Patients with no change in visual hallucinations	6	2	N/A
Patients with decrease in the intensity of visual phenomena	3	2	N/A
Patients who stopped experiencing visual hallucinations	2	0	N/A
Patients who reported unstructured visual phenomena for the first time	N/A	N/A	2

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Sir,
Intraocular filarial infection

Filarial infestation by genus *Dunnifilaria* has been reported only in animals.