Photodynamic therapy in "Secondary Sick RPE Syndrome" after repeated intravitreal injections of VEGF inhibitors in patients with wet age-related macular degeneration

Patrik Kloos, Hugo Niederberger & Christophe Valmaggia

BACKGROUND
After repeated injections of VEGF inhibitors for wet AMD some patients show therapy-resistant isolated subretinal fluid (here named secondary sick RPE syndrome). The efficacy of photodynamic therapy was examined in these cases.

PATIENTS AND METHODS
A group of in total 18 patients with wet AMD (14 eyes with occult and 4 with minimal classic CNV) showed therapy-resistant isolated subretinal fluid after repeated intravitreal injections of VEGF inhibitors (bevacizumab or ranibizumab). These eyes were treated with photodynamic therapy with verteporfin. After PDT the need for further intravitreal injections of VEGF inhibitors and visual acuity was examined.

RESULTS
After a mean number of 7.1 injections of VEGF inhibitors (bevacizumab or ranibizumab), in 14 patients one PDT, in 4 patients two PDT were performed. Twelve of 18 patients showed complete resorption of subretinal fluid and needed no further intravitreal injections during a mean of 11.6 months (4 - 26) after PDT. Six patients needed a mean of 4.3 additional injections. Twelve of 18 patients showed stable visual acuity (± 5 letters ETDRS), 6 improved more than 5 letters while none of them showed visual loss.

CONCLUSIONS
In patients with wet AMD and isolated subretinal fluid after repeated injections of bevacizumab or ranibizumab photodynamic therapy could be an option to reduce the number of further injections and to stabilise visual acuity.

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