PURPOSE: The aim of this study is to discuss the effect and outcome of a combined photodynamic therapy and intravitreal injection of bevacizumab (1.25 mg) in occult and classic choroidal neovascularisation (CNV) due to AMD. Especially cases of occult CNV with pigment epithelium detachment (PED) are not likely to respond positively to standard photodynamic therapy, often ending up in PED enlargement or tearing of the RPE.

METHODS: In a pilot study involving 23 patients, intravitreal injections of bevacizumab were administered within 12 to 24 hours after standard PDT to reduce the post-PDT increase of proangiogenic and inflammatory factors. Before and at 1, 3 and 6 month after treatment visual acuity and OCT examinations (retinal thickness) were performed.

RESULTS: Mean visual acuity was significantly improved compared to baseline. (VA baseline 20/125, after 1 month 20/80, after 3 months 20/80, and 20/80 after 6 months) and an enlargement of the PED in occult CNV was prevented. We found no RPE rip. OCT findings in patients with occult and classic choroidal neovascularisation 1, 3 and 6 months after combination therapy showed a reduced retinal thickness compared to baseline.

CONCLUSIONS: Photodynamic therapy combined with injection of intravitreal bevacizumab tends to be more effective compared to PDT monotherapy by reducing the
post-PDT increase of vascular growth and inflammatory factors. Our short-term results are very promising. Further studies are necessary to show the long-term effect of PDT and anti-VEGF combination therapy.