ANTI-PLGF, A SAFER ALTERNATIVE FOR ANTI-VEGF, IN THE TREATMENT OF AMD?

VAN DE VEIRE S., VINORES S., MAZZONE M., VAN BERGEN T., STASSEN J.M., MOONS L., STALMANS I., CARMELIET P.

Purpose: To design additional or adjunctive therapeutic strategies to improve the current treatment options for CNV. The efficacy and safety of anti-PlGF therapy as monotherapy as well as in combination with anti-VEGF treatment was checked.

Methods: To assess the ability of anti-PlGF to suppress CNV, a laser-induced murine CNV model was used and the size and vascularity of the lesions were evaluated on choroidal flat-mounts and serial sections.

Results: Anti-PlGF suppressed choroidal neovascularization. Combination treatment of anti-PlGF with an antibody to VEGFR2 augmented the CNV suppression. Additionally, anti-PlGF suppressed the local inflammation, while anti-VEGFR2 did not. Anti-PlGF treatment proved to be safe for the retinal vascular development, and did not cause retinal neurodegeneration.

Conclusion: Our study explored the role of PlGF in CNV and the therapeutic potency and safety of anti-PlGF antibodies in the treatment of this disease. With these efforts we are hoping to improve the visual prognosis of the vast population suffering from this blinding disease.