VEGF blockage prevents healthy retinal tissue regrowth in retinal vascular disease

Michael Trese, M.D.
Royal Oak, MI

Antonio Capone, M.D., Kimberly DRENSER, MD PhD

Purpose:

Purpose: To present human studies and animal data as to why complete and prolonged VEGF blockage prevents healthy retinal tissue regrowth in retinal vascular disease

Methods:

Methods: Summation of five human trials of VEGF blockage for diabetic retinopathy and retinal vein occlusion where the area of capillary drop out is measured before and at the end of VEGF blockage. In vivo studies of capillary beds at peak VEGF levels in murine OIR models treated with VEGF blockage as well as treatment by Noregen which promotes Norrin driven Wnt signaling modulation of VEGF.

Results:

the Results: Multiple human trials show that there is no change in capillary drop out area at the beginning of treatment with VEGF blockage and the end of treatment. In vivo animal studies show that complete VEGF blockage suppresses appropriate capillary regrowth and that Noregen (a modified Norrin Protein) modulation of the VEGF environment shows vessel repair and appropriate capillary growth

Conclusions:

Conclusion: VEGF blockage suppresses healthy retinal tissue regeneration in human and animal studies