

Changes in Macular Perfusion after ILUVIEN implant for Diabetic Macular Edema: an OCTA study

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Summary slide

- This OCTA study evaluated changes in macular perfusion in patients affected by diabetic macular edema (DME) and treated with ILUVIEN® (fluocinolone acetonide intravitreal implant) 0.19 mg
- The qualitative and quantitative assessment demonstrated that this treatment is not associated with worsening in retinal perfusion
- Areas of reperfusion may be related to reversible retinal vessel closure secondary to leukostasis

Background

- Recent evidences suggest that macular perfusion doesn't modify after 12 months of intravitreal aflibercept therapy
- Because nonperfusion is expected to progress in diabetic retinopathy, this finding may represent a beneficial association between anti-VEGF therapy and macular vascular density

Association of Intravitreal Aflibercept With Optical Coherence Tomography Angiography Vessel Density in Patients With Proliferative Diabetic Retinopathy A Secondary Analysis of a Randomized Clinical Trial

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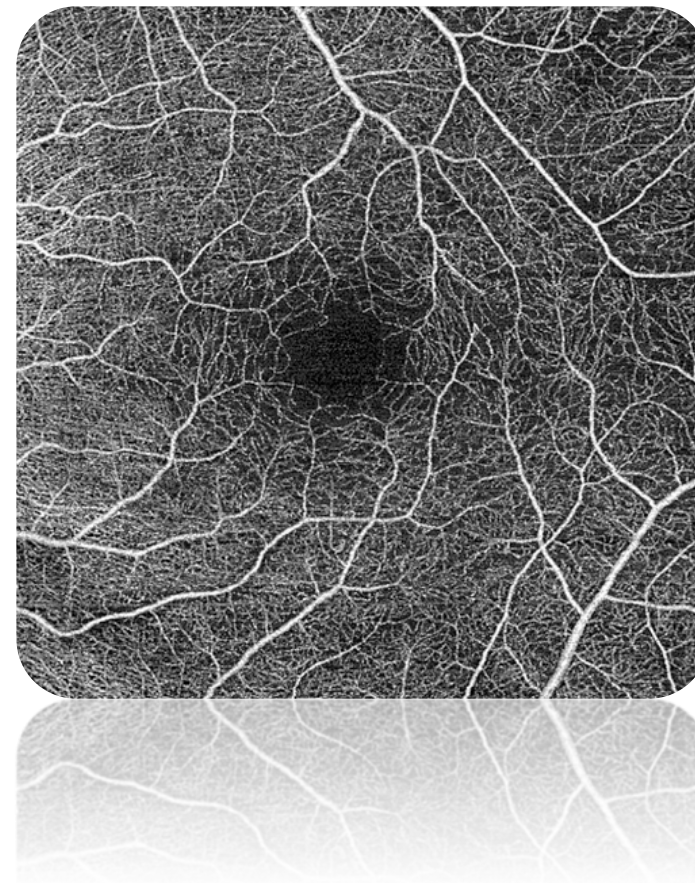
Purpose

- To investigate changes in macular perfusion in patients affected by diabetic macular edema (DME) and treated with ILUVIEN[®] (fluocinolone acetonide intravitreal implant) 0.19 mg




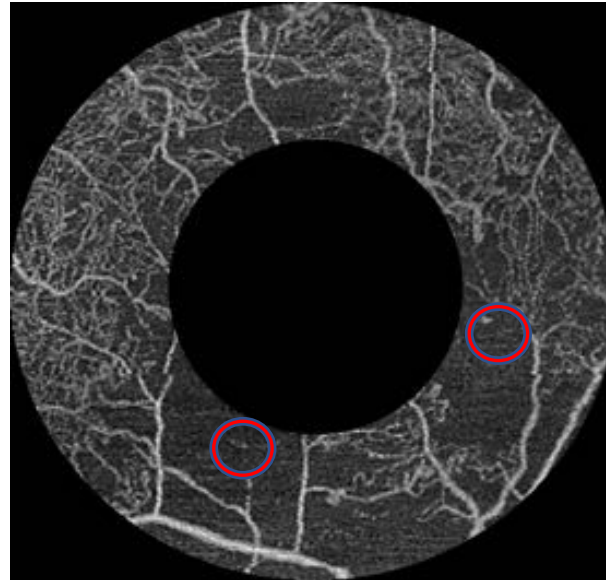
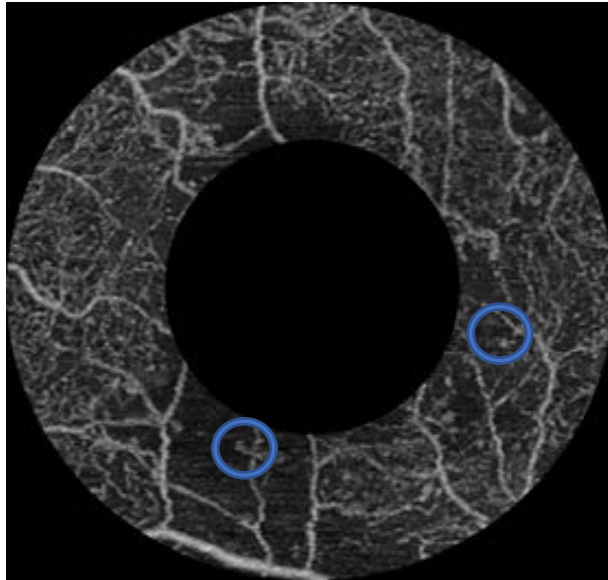
Methods

- Ten patients (10 eyes) older than 18 years of age and with type 2 non-proliferative DR and DME at baseline were included
- Nice patients (9 eyes) without disease were included for comparison
- All patients were treated with the ILUVIEN® implant
- In order to investigate macular perfusion changes, patients had two OCTA scans: (i) baseline, and (ii) 4-month FU OCTA images

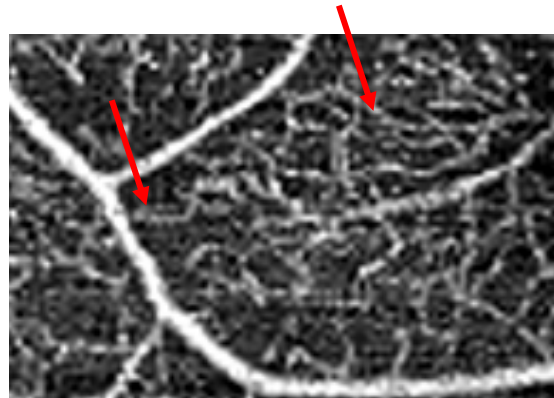
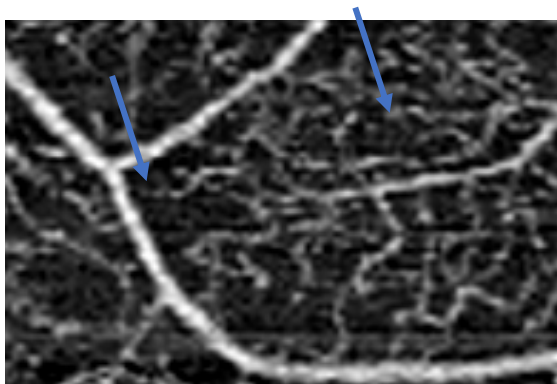


Results – Qualitative grading

 Loss of perfusion



 Reperfusion



Baseline

4-month FU

The qualitative grading demonstrated that treatment was associated with both areas of loss of perfusion and regions of reperfusion

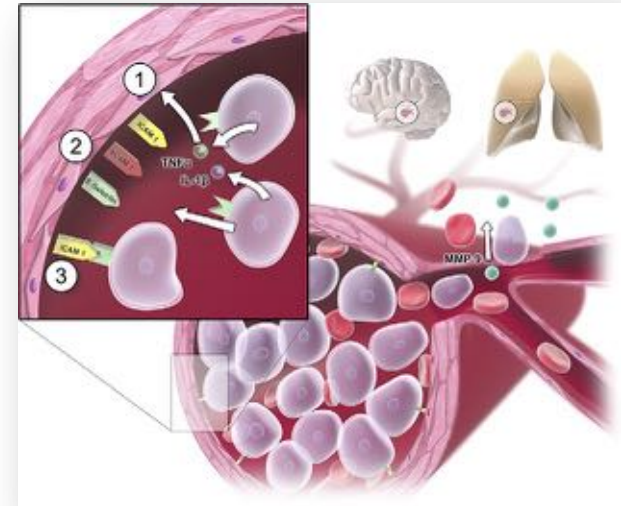
Results – Quantitative analysis

		Baseline	4-month FU	P value
DR eyes treated with Iluvien	Parafoveal perfusion density	64.1±1.8%	66.1±2.9%	0.013
	Perifoveal perfusion density	64.4±2.1%	65.2±2.6%	0.024
DR eyes without treatment	Parafoveal perfusion density	63.7±2.3%	63.1±4.4%	0.875
	Perifoveal perfusion density	64.0±4.1%	64.2±3.7%	1.0

The quantitative analysis proved a slight improvement in macular perfusion at the 4-month FU visit

Conclusions

- This study confirms recent OCTA evidences that intravitreal treatments are not associated with worsening in retinal perfusion
- Reversible retinal vessel closure (areas of reperfusion) may be related to leukostasis
- Inflammation suppression with Iluvien is associated with areas of reperfusion and an overall no worsening of macular perfusion



Thanks for your attention