optomap® | ILUVIEN® Intravitreal Implant

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History

In patients with Diabetic Macular Edema (DME), whose chronic inflammation has not been managed by anti-VEGF medications, corticosteroids are typically employed. Until recently, these medications needed to be readministered every few months creating a substantial burden of treatment upon the patient. In September 2014 the FDA approved the use of ILUVIEN, a 3-year, .19mg fluocinolone acetonide intravitreal implant. The tiny implant (3.5mm x 0.37mm) is injected into the vitreous and generally visualized in the anterior portion of the posterior segment. In some cases the implant is not immediately visualized. In these cases **opto**map ultra-widefield retinal imaging is invaluable in finding and documenting the dispensed implant.

Examination

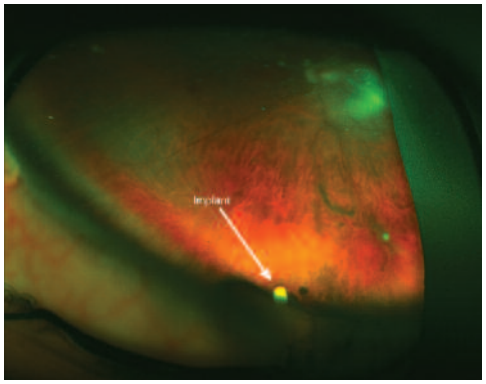
Each patient is imaged with **opto**map immediately preceding administration of ILUVIEN to document the condition of the eye at the time of the procedure and immediately following to verify delivery. ILUVIEN is injected inferior to the optic disc and generally can be visualized by standard view as it passes the pupil. Immediately following the injection the patient is brought to the device and a speculum is placed. The patient is instructed to look at their toes. This can be done undilated (allowing for expedited visualization), the Pars Plana is imaged and the implant delivery is verified. The following images are selected to demonstrate how a unique use of optomap technology verified implant delivery where standard BIO, slit lamp or ultrasound would not be adequate.

Conclusion

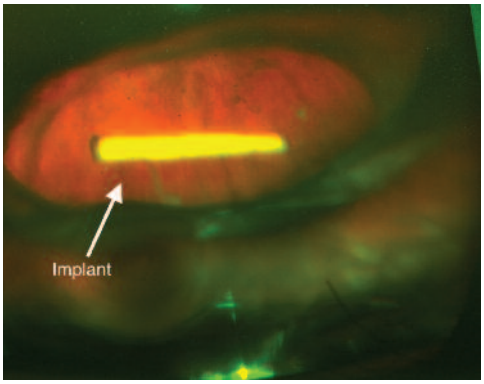
Verification of ILUVIEN implants should be done on all patients. Delayed verification of the implant may cause a number of concerns:

- Expense - the implant could be lost during an injection attempt if it is advanced too far in the syringe or the patient moves during injection.
- Doctor confidence - uncertainty that procedure is complete or may need to be repeated.
- Patient peace of mind - unlike other corticosteroid injections, ILUVIEN cannot be seen by the patient.
- Documentation - unable to verify for insurance purposes.

This unique application of **opto**map enables prompt visualization in extreme views that would not be achievable via standard BIO, slit lamp or ultrasound. The augmented value is practitioner confidence, patient peace of mind and documentation of procedural success for patient record and insurance purposes.



Ora Serrata view - the optic nerve is visible at the top of the image and immediately adjacent is an IOL artifact. This is an eccentric gaze **opto**map image. The patient is looking at their toes. Only the tip of the ILUVIEN implant rod is visible - a view almost impossible without scleral depression which would be unwise following injection.



Behind the lens view - This is a dynamic protocol in which the patient is advanced toward the device and the pupil comes into view. As the eye moves, the implant "bobs" up in the vitreous, inferior to the iris in the anterior portion of the posterior segment. As the implant "bobs" upward in this extreme view, the image is captured.

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