Long-term results of intravitreal dexamethasone implant in patients with non-infectious uveitis

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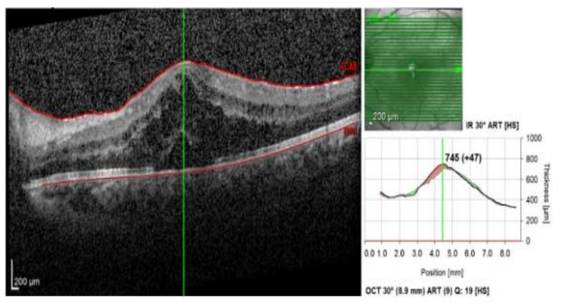
Background:
To evaluate the long-term results and re-injection requirement of dexametasone implant (DEX-implant) (Ozurdex; Allergan, Inc) in eyes with non-infectious uveitis.

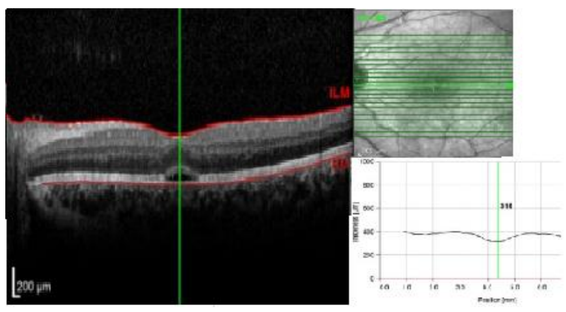
Patients & Methods:
Thirty-two eyes of 30 patients with non-infectious uveitis injected with DEX-implant for macular edema and/or persistent vitreous haze and followed-up for at least one year were included. Best corrected visual acuity (BCVA), central macular thickness (CMT), IOP at each visit, vitreous haze score, pre/post-injection medications and recurrence rate, the number of injection and occurence of complications were retrospectively reviewed.

Results:
The mean age of the patients was 37.8 (15-60) years and the mean post-injection follow-up period was 22.5±10.9 (12-62) months. *Etiology of uveitis* was Behçet disease in 14 (46.7%), idiopathic uveitis in 11 (36.7%), HLA-B27 associated uveitis in 2 (6.7%), multiple sclerosis in 2 (6.7%) and sarcoidosis in 1 (3.3%). *Indications for DEX-implant* were cystoid macular edema in 18 (56.3%), persistent vitreous haze in 9 (28.1%) and both in 5 (15.6%) eyes. *The vitreous haze score* improved significantly during all follow-up period. (p<0.001) *The mean BCVA* improved from 0.89±0.54 logMar units to 0.58±0.46, 0.46±0.46, 0.40±0.48 and 0.41±0.51 logMar at 1,3,6 and 12 months respectively. (p<0.001) *The mean CMT* improved from 503±146 µm from baseline to 369±138 µm at 1, 368±165 µm at 3, 313±129 µm at 6 and 303±87 µm at 12 months. (p<0.001) A *re-injection* was not needed in 23 (71.9%) eyes. *The mean intraocular pressure* (IOP) (17±4.8 mmHg at baseline) was 22.7±7.9 mmHg (p<0.001), 20.4±6.7 mmHg (p<0.05), 16.4±5.5 mmHg (p>0.05) and 16±5.3 mmHg (p>0.05) at 1,3,6 and 12 months respectively. *Cataract* surgery was needed in 9/32 eyes (28.1%). DEX-implant was used as an adjuvant along with systemic therapy in 25 (83.3%) and as monotherapy in 5 (16.7%) patients.

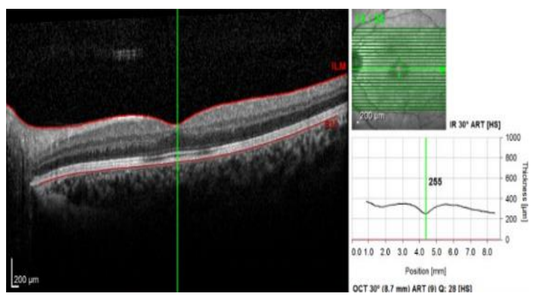
Case 1 : A 21-year-old female patient with Behçet uveitis



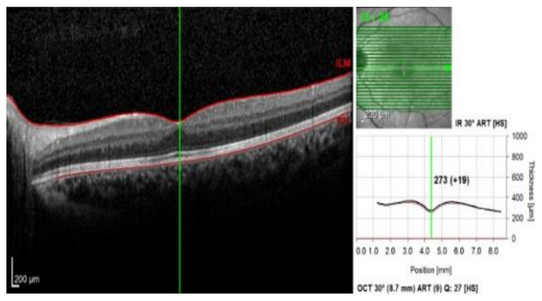
a**. Pretreatment** OCT showing CME with CMT of 745 µm. BCVA is 0.70 logMAR.



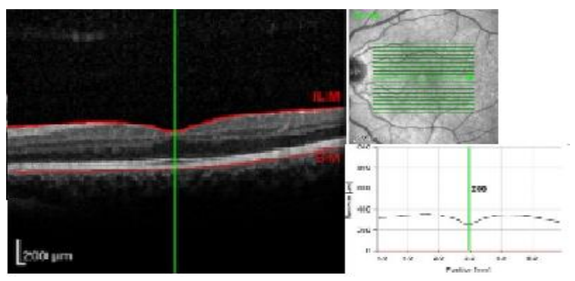
b. **1st month.** CMT:318 µm , BCVA : 0.30 logMAR



c. **3rd month.** CMT:255 µm, BCVA : 0.20 logMAR.

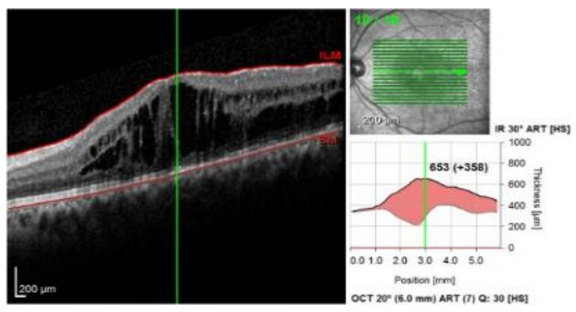


d. **6th month.** CMT:273 µm, BCVA: 0.10 logMAR.

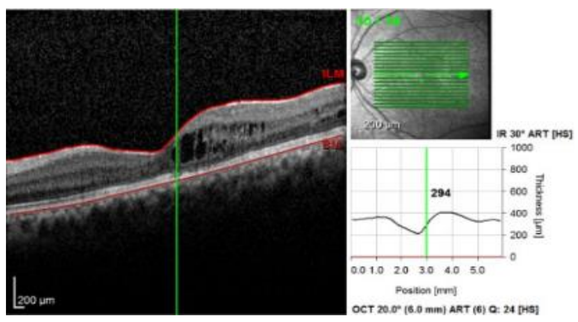


e. **12th month**. CMT: 266 µm, BCVA : 0.00 logMAR.

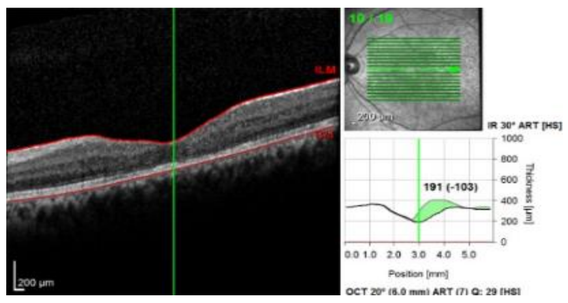
Case 2: A 28-year-old male patient with chronic idiopathic uveitis



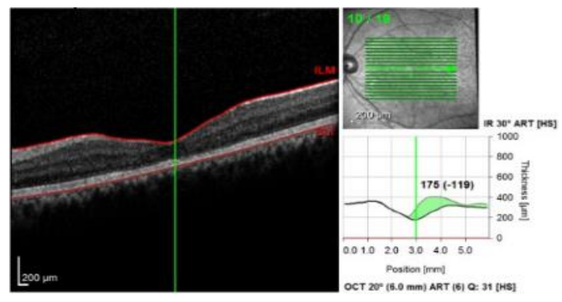
a. **Pretreatmen**t OCT showing CME with CMT of 653 µm. BCVA is 1.00 logMAR.



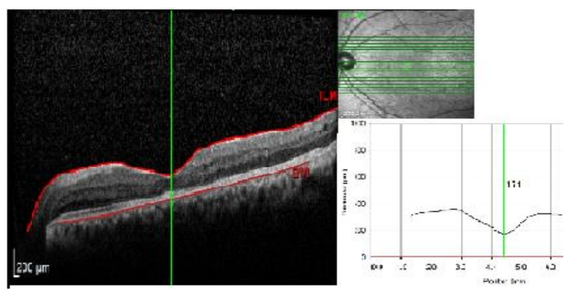
b. **1st month.** CMT: 294 µm, BCVA: 0.30 logMAR.



c. **3rd month.** CMT:191 µm, BCVA: 0.20 logMAR.



d. **6th month.** CMT:175 µm, BCVA: 0.20 logMAR.



e. **12th month**. CMT: 171 µm BCVA : 0.10 logMAR.

Comments: In acute exacerbations of posterior segment inflammations causing severe vitreous haze and macular edema, the DEX-implant serves as an “extinguisher” providing a rapid resolution of acute inflammation and saving time until the adjustment of systemic treatment. It also offers the opportunity of avoiding systemic side effects, particularly in patients not responding to optimal systemic treatment and in patients with unilateral involvement not associated with a systemic disease but with significant ocular complications. Differentiation of infectious and non-infectious forms of uveitis, masquerade syndromes, exclusion of patients with a history of glaucoma or IOP elevation prior to implantation is especially important.

Conclusions: DEX-implant is an effective and safe adjuvant therapy providing long-term control of inflammation in patients with chronic uveitis. However, a careful selection of patients is crucial in order to avoid severe complications.