Introduction: Diabetic retinopathy (DR) is one of the leading causes of blindness and visual impairment worldwide. Until recently, the treatment of DR included laser photocoagulation, anti-VEGFs, steroid injections and surgery. In more severe cases, such vitreous hemorrhage or vitreous macular traction syndrome, pars plana vitrectomy may result in improvement in visual acuity (VA) as well intravitreal steroid injections for persistent diabetic macular edema (DME). For many patients the anti-VEGF offer good outcomes, however, these drugs are injected into the eye, approximately every month or every two months, leading to a significant burden of injections and visits not only for the patient, but also for care givers, physicians, and health care system. Moreover not all patients respond sufficiently and recurrence of DME is often. New long-lasting medications are required and are now available in order to decrease the frequency of intravitreal injections and provide patients a continuous and sustained treatment. The aim of this study is to assess effectiveness as well safety one year after FAc implant.

Materials and Methods: Retrospective study of 10 chronic DME patients treated with FAc and with a previous insufficient response to anti-VEGF intravitreal injections. VA, central macular thickness (CMT), macular volume (MV) and intraocular pressure (IOP) were evaluated at baseline, month 1 and them every 3 months until month 12.

Results: Mean age of patients was 60.5 years. 50% male and 50% female, 60% phakic and 40% pseudophakic, without previous vitrectomy and with a mean duration of DME of 2.7±0.9 years (mean ± standard deviation). From baseline to M6 it was observed a mean gain of 15.8 letters that decrease until M12 to baseline values due to cataract formation. However CMT consistently decreased from 483.9 μm to 343.6 μm at last observation (p=0.013) as well MV from 10.54 mm3 to 8.95 mm3 (p=0.047). There was a mean change of 1.1 mmHg from baseline to month 12.

CONCLUSIONS: The results at our hospital demonstrated that patients with chronic DME treated with 1 Iluvien implant achieved significant anatomic and visual improvement. Despite the cataract formation with steroids and recurrent disease, VA is expected to recover after removing of cataracts. Due to the recurrence and chronic nature of DME, long-term steroid implants become candidates for treatment of this disease. Real-life experience demonstrates that treatment with Iluvien is an effective and safe option for patients with poor response to anti-VEGFs.