Purpose: To evaluate whether performing early pars plana vitrectomy (PPV) affects visual outcomes of patients with retained lens fragments after a complicated cataract surgery (CS).

Methods: A retrospective chart review of 35 patients who underwent PPV for retained lens fragments, at Gazi University, Ophthalmology Department. Associated ocular co-morbidities, time interval between CS and PPV, and their effect on visual prognosis were evaluated.

Results: The mean follow-up period after PPV was 5.2 months. 18 patients (51%) had PPV within 1 week of CS (group A, mean: 2.5 days), and 17 patients (49%) had PPV after more than 1 week of CS (group B, mean: 35.9 days). In group A, 12 (70%) patients had preexisting ocular co-morbidities like proliferative diabetic retinopathy (PDR), severe non-PDR, degenerative myopia, previous rhegmatogenous retinal detachment And 5 of them had vitrectomized before CS. In group B only 4 patients (23.5%) had preexisting ocular co-morbidities like PDR, and mild glaucoma. The mean pre-PPV logMAR visual acuity (VA) was 1.51 in group A and 2.35 in group B. At the most recent examination, the mean logMAR VA had improved to 0.9 in group A and 1.4 in group B (P <0.05).

Conclusion: PPV causes significant improvement in final VA's in both groups. In early PPV group, in which visual expectation was lower due to more prevalent pre-existing ocular co-morbidities, the visual improvement was significantly better than the delayed PPV group (P <0.05). Therefore performing early PPV can be vision saving even in eyes with pre-existing ocular co-morbidities.