

INTRODUCTION

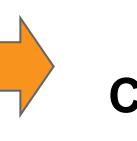
Traumatic macular holes are a rare condition, more often related to blunt eye injuries, that can cause permanent visual loss and scotomas. The treatment can be interventionist although spontaneous closure occurs until 3 months after trauma.

In this paper we aimed to discuss a case of traumatic lamellar hole with conservative treatment and spontaneous closure.

Case report of a 23 yo patient and correlation to previous literature.



Blunt eye injury during soccer



Slit-lamp examination of the affected eye showed conjunctival injection, clear and compact cornea, no evidence of superficial damage to the eyeball, and no lens injury.

Left eye fundus examination and retinography showed blurred optic nerve, hemorrhages in papillary-macular axis and inferior temporal retina and peripherical degenerations. OCT revealed lamellar hole in OS.

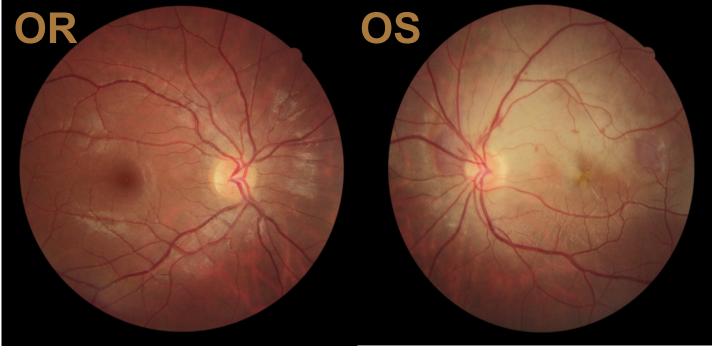


Figure 1 Retinography at admission

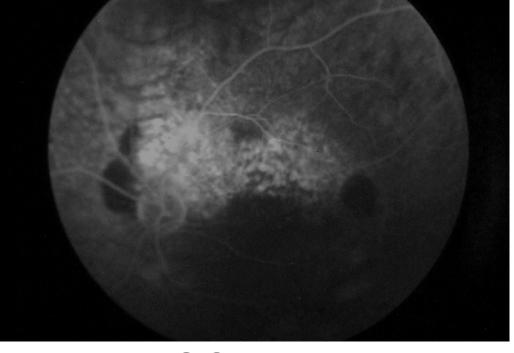


Figure 2 OS angiography at admission

REFERENCES

1. Faghihi H, Ghassemi F, Falavarjani KG, Saeedi Anari G, Safizadeh M, Shahraki K. Spontaneous closure of traumatic macular holes. Can J Ophthalmol. 2014;49(4):395-8. 2. Theodossiadis PG, Grigoropoulos VG, Emfietzoglou I, Nikolaidis P, Papathanasiou M, Theodossiadis GP. Spontaneous closure of lamellar macular holes studied by optical coherence tomography. Acta Ophthalmol. 2012 Feb;90(1):96-8.

SPONTANEOUS CLOSURE OF TRAUMATIC LAMELLAR HOLE: CASE REPORT

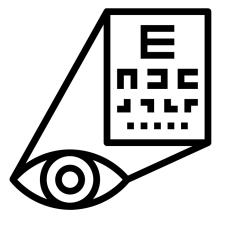
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METHODS

RESULTS

Vision loss Central scotoma



OR 20/25 **OS** 20/150 (peripheric field)

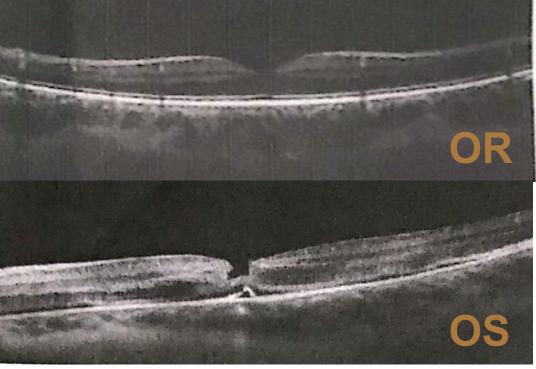


Figure 3 OCT at admission

Underwent panphotocoagulation of periphery and conservative treatment.

After 3 months follow up, the OCT image showed complete hole closure and reorganization of retina layers.



Figure 4 OS OCT after 2 months

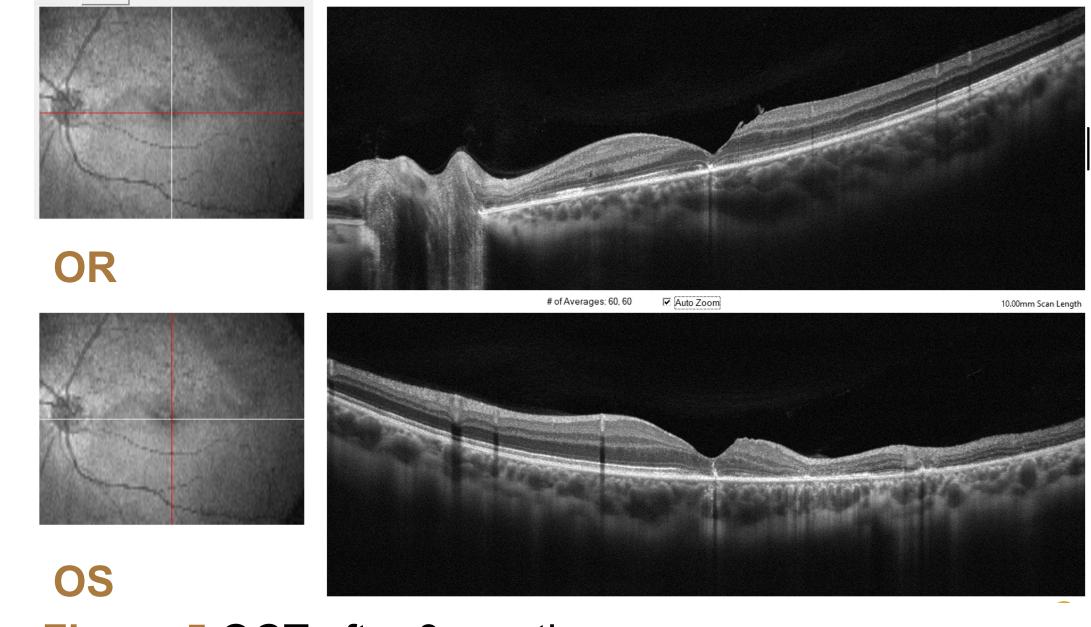


Figure 5 OCT after 3 months

DISCUSSION

Traumatic lamellar holes are usually consequence of a blunt eye injury, more frequently occurring in patients with previous retinal alterations. The pathophysiology includes extrinsic force against the globe that can lead to alterations in the vitreoretinal interface.

The treatment is individualized from observation to vitrectomy. Spontaneous closure occurs in 40% of all patients after 2 weeks to 3 months of follow-up. Seriated OCT analysis can help to predict the outcome, since an increasing size hole is a worse prognostic factor. Young patients with minor alterations in OCT image are eligible for conservative treatment before deciding for vitrectomy.

Our patient improved anatomic and functionally during the 3 months following the trauma.



3 MONTHS FOLLOW UP



^{3.} Purtskhvanidze K, Balken L, Hamann T, Wöster L, von der Burchard C, Roider J, et al. Long-term follow-up of lamellar macular holes and pseudoholes over at least 5 years. Graefe's Arch Clin Exp Ophthalmol. 2018 Jun 1;256(6):1067–78.

^{4.} Fiorentzis M, Seitz B, Viestenz A. Traumatic Macular Hole. Klin Monbl Augenheilkd. 2019;236(8):990-8.

^{5.} Kuhn F, Morris R, Witherspoon CD, Mann LR. Epidemiology of blinding trauma in the United States Eye Injury Registry. Ophthalmic Epidemiol. 2006 Jun;13(3):209–16.