



Management of Self-Inflicted Traumatic Suprachoroidal Hemorrhage in a Patient with Schizophrenia



UPSTATE
MEDICAL UNIVERSITY

Peter Fioramonti BS¹, Isaac Kim MD², Robert Swan MD²

¹Norton College of Medicine, SUNY Upstate Medical University, Syracuse, NY

²Department of Ophthalmology & Visual Sciences, SUNY Upstate Medical University, Syracuse, NY

Introduction

Management of ocular traumas necessitates an in-depth understanding of both the anatomy of the eye and the pathophysiological processes that underlie such injuries. This is particularly evident in the case of a 33-year-old male with a history of schizophrenia, who, after discontinuing Risperidone 3 mg BID for 2.5 months, underwent a psychotic episode in which he attempted to dig out his own eye, resulting in a traumatic suprachoroidal hemorrhage. This analysis of this case illustrates the critical role of comprehensive knowledge in ocular anatomy and pathology, alongside a collaborative, multidisciplinary approach. Such a strategy enables the effective management and treatment of ocular injuries, regardless of their rare and complex origins.^{1,2}

Clinical Evaluation

Visual acuity assessment: Right eye 20/30; Left eye 20/200.

Intraocular pressure (IOP): Normal IOP in the right eye (17 mmHg) and slightly reduced in the injured left eye (9-12 mmHg).

Pupillary responses and extraocular movements: Unaffected pupillary reactions and full range of eye movements, indicating no direct neurological impairment from the injury.

Anterior segment examination: The left eye exhibited significant subconjunctival hemorrhage (Fig 1a) and a crescent-shaped peripheral nasal epithelial defect (Fig1b).

Dilated fundus examination: Identified hemorrhagic choroidals without evidence of retinal detachment or vitreous hemorrhage (Fig 2a, Fig 2b).

B-scan ultrasound: Revealed choroidal folds and hemorrhage (Fig 3), necessitating management to preserve retinal health and prevent choroidal neovascularization. The absence of retinal detachment or vitreous hemorrhage might suggest a less immediate risk to vision.

CT imaging: Hyperdensity in the left globe and posterior orbital wall indicated hemorrhage, affirming the globe's integrity and guiding the management strategy (Fig 4).

Imaging

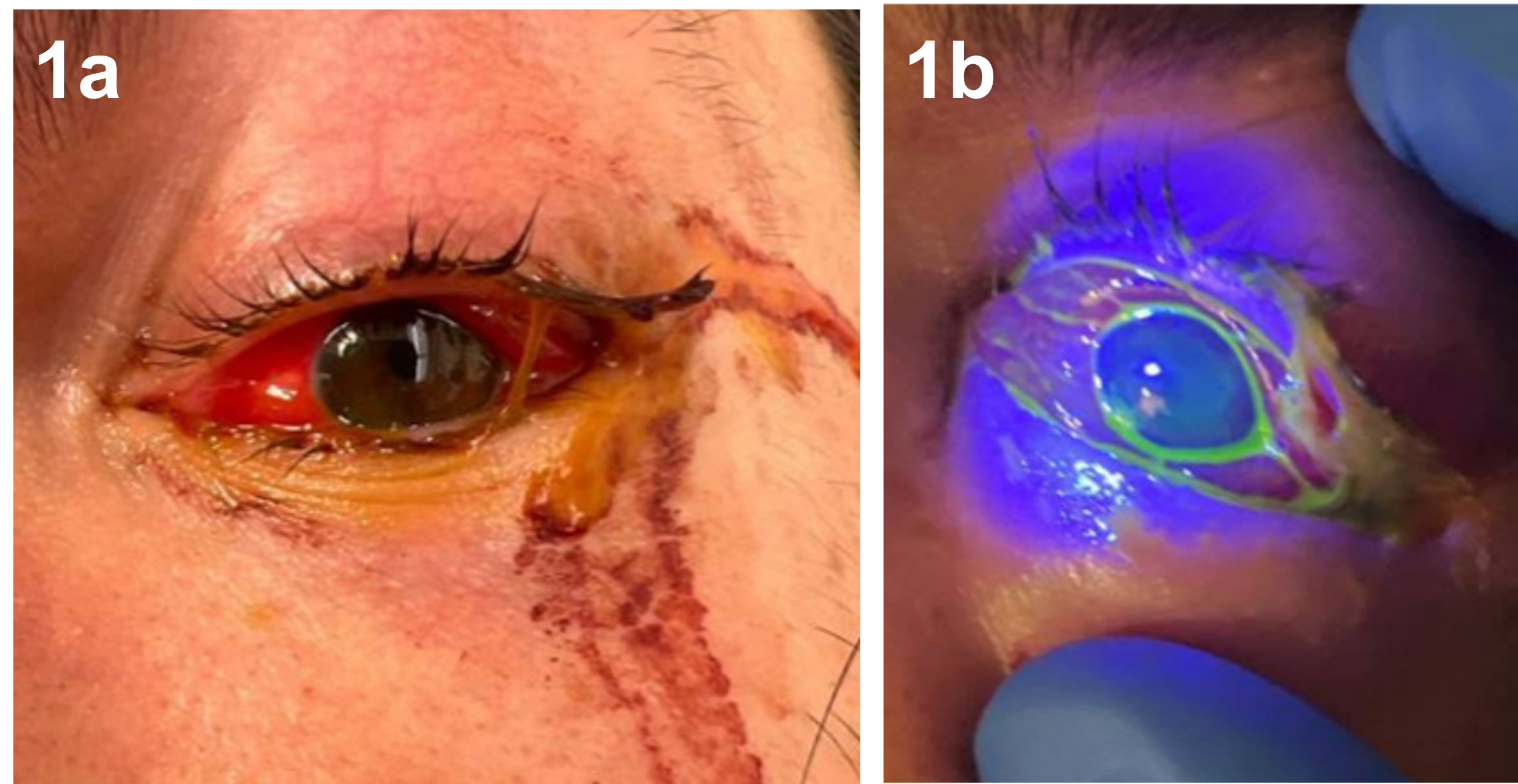


Figure 1a. Gross image of left eye
Bullous subconjunctival hemorrhage, with sparing in nasal and inferior regions. There are no clear conjunctival or scleral lacerations and no signs of a ruptured globe.

Figure 1b. Gross image of left eye stained with fluorescein under UV light
Crescent-shaped peripheral nasal epithelial defect, Seidel negative, no clear corneal laceration, no opacity or infiltrate.

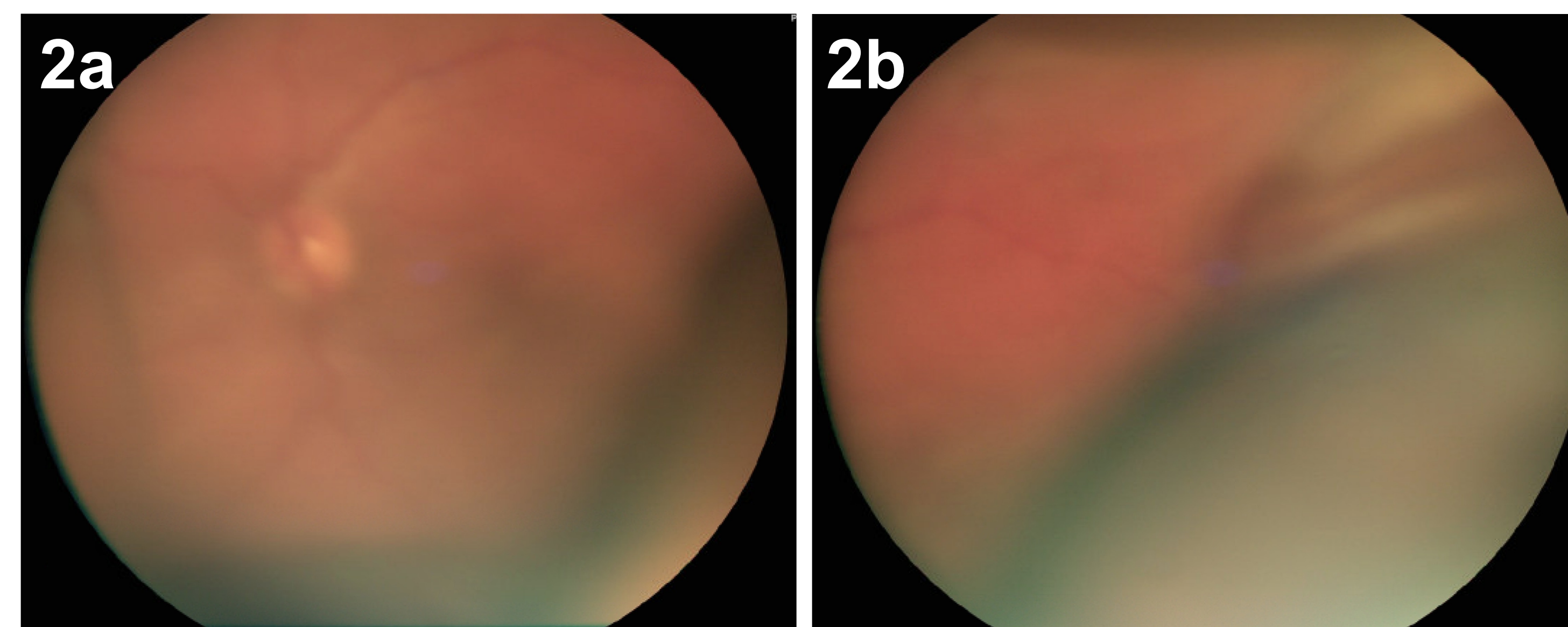


Figure 2a. Dilated fundus exam of left eye (center)
Normal disc, macula, and vessels, C/D ratio = 0.2, with intraretinal hemorrhage visible in periphery.

Figure 2b. Dilated fundus exam of left eye (periphery)
Intraretinal hemorrhage abutting a temporal hemorrhagic choroidal.

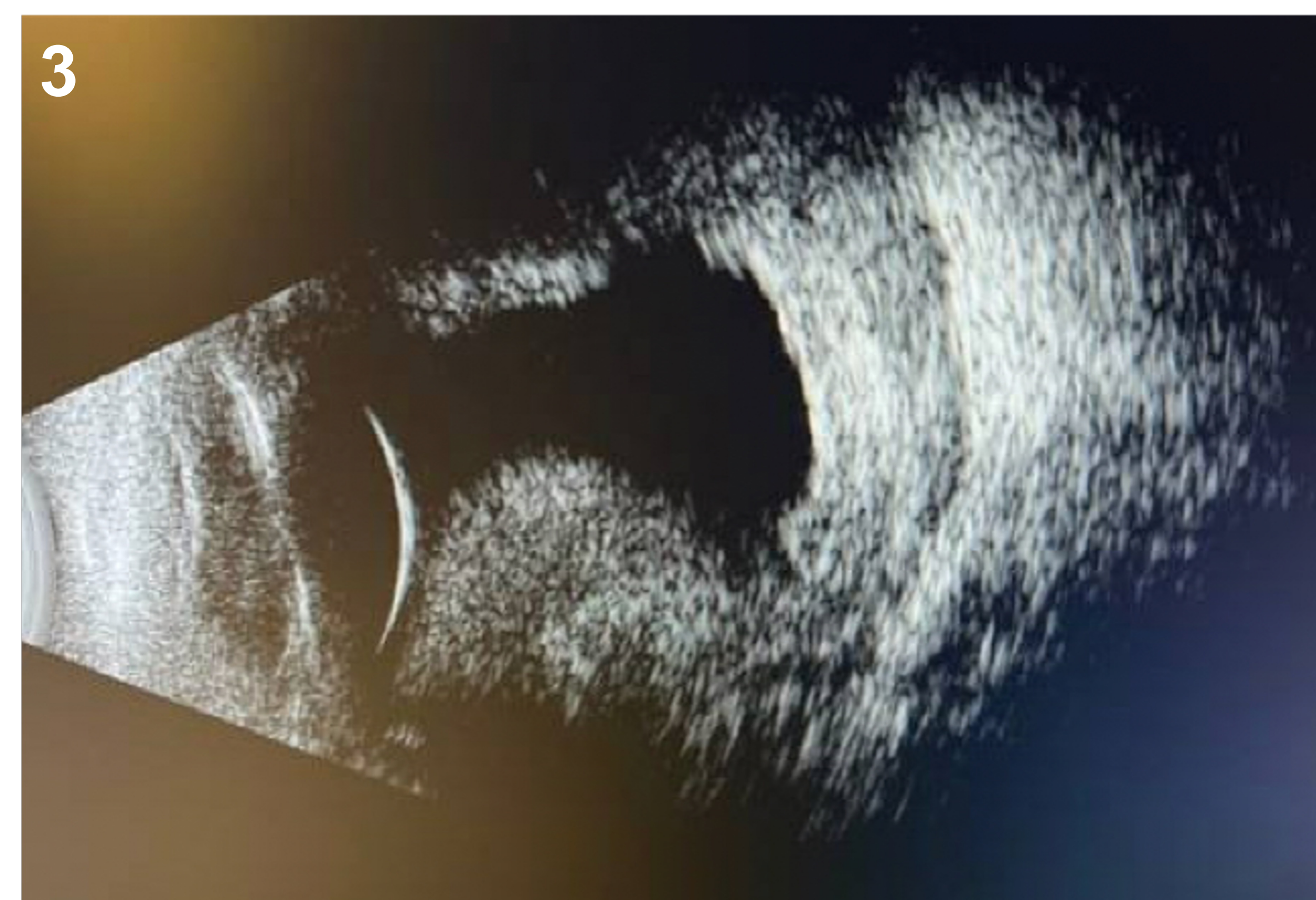


Figure 3. B-scan of left eye
Choroidal folds and hemorrhagic regions, particularly temporally and inferiorly, showing hyperechoicity but no signs of retinal detachment or vitreous hemorrhage.

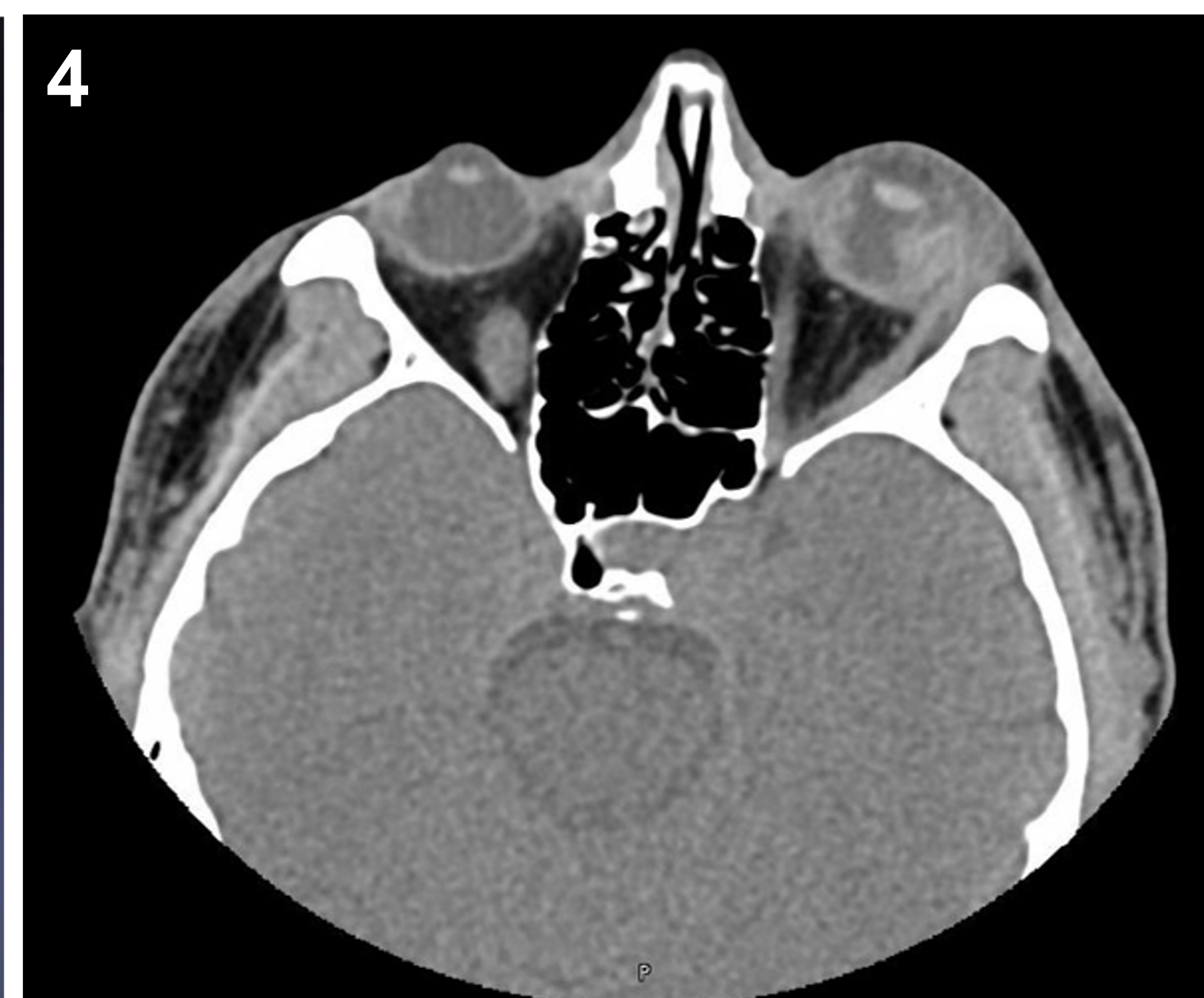


Figure 4. CT orbit
Hyperdensity in the left globe and along the posterior orbital wall, suggestive of suprachoroidal hemorrhage, without evidence of globe rupture.

Interventions

Medication adjustment: Risperidone dosage set to 1 mg twice daily, chosen for historical compliance and positive response.

Antibiotic therapy: Ofloxacin (0.3%) eye drops in the left eye, four times daily, to prevent bacterial infection.

Anti-inflammatory: Prednisolone acetate eye drops (Pred Forte 1%), four times daily, to mitigate inflammation.

Cycloplegic treatment: Atropine sulfate (1%) eye drops, twice daily, for pain relief and prevention of synechiae.

Ocular protection: Patient advised to consistently use an eye shield, removing only for eye drops, ensuring injury protection.

Visual acuity and IOP monitoring: Scheduled visits ensure healing, visual progress, and IOP are tracked, focusing on potential complication management.

B-scan ultrasound and CT imaging follow-up: Imaging planned to observe hemorrhagic choroidal resolution and check for further ocular or orbital issues.

Conclusion

This case highlights the vital role of ophthalmologists in multidisciplinary healthcare for unique ocular traumas and underscores the importance of a complete eye exam in all trauma scenarios. Emphasizing a deep understanding of ocular anatomy and pathology, this case demonstrates successful management of rare eye traumas, stressing personalized care to prevent secondary complications and preserve vision. The consistent visual improvement and stable ocular health of the patient, without complications, showcase the effectiveness of this approach, indicating a positive recovery trajectory.³

References

- 1 - Patton N. Self-inflicted eye injuries: a review. *Eye (Lond)*. 2004;18(9):867-872. doi:10.1038/sj.eye.6701365
- 2 - Large M, Andrews D, Babidge N, Hume F, Nielssen O. Self-inflicted eye injuries in first-episode and previously treated psychosis. *Aust N Z J Psychiatry*. 2008;42(3):183-191. doi:10.1080/00048670701827259
- 3 - Foo R, Tsai A, Lim L. Management of Suprachoroidal Hemorrhage. *EyeNet Magazine*. May 2018. [https://www.aao.org/eyenet/article/management-of-suprachoroidal-hemorrhage]



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