



## VALSAVA RETINOPATHY AFTER A WORLD CUP MATCH: CASE REPORT

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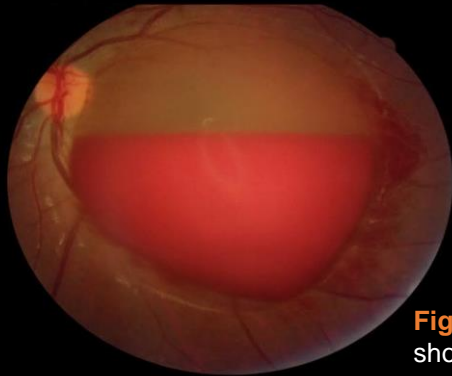
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### BACKGROUND

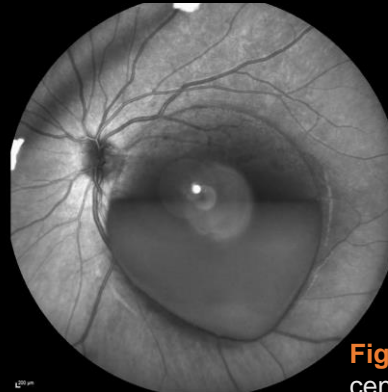
Subhyaloid hemorrhage (SHH) defined as collection of blood between the posterior hyaloid (vitreous) and retina occurs with many conditions including valsalva retinopathy (1). Valsalva retinopathy can be a subhyaloid or internal sub-limiting hemorrhage. The Valsalva maneuver comprises forcible exhalation against the closed glottis and produces a sudden increase in the venous blood pressure owing to a rise in intrathoracic or intraabdominal pressure. As the sudden rise in intraocular venous pressure occurs, a spontaneous rupture of retinal perifoveal capillaries ensues, leading to a sudden, painless loss of vision in an otherwise healthy eye. (2) The most common presenting symptom is blurred vision or a central scotoma but patients with a gross preretinal haemorrhage may present with a complete loss of vision (3).

## CASE REPORT

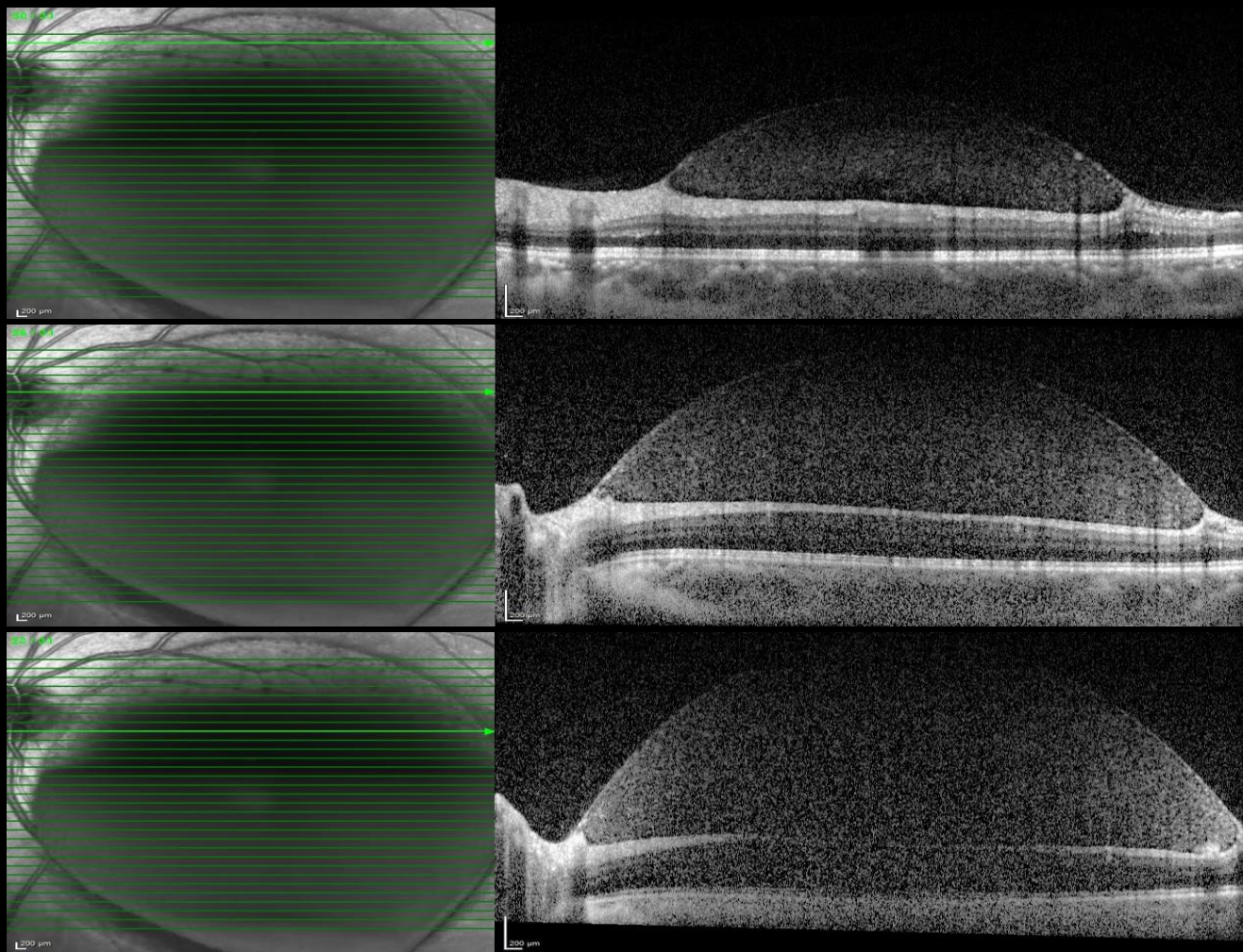
A 19 years old girl without comorbidities admitted at ophthalmology emergency unit with sudden and painless loss of visual on left eye vision 5 days prior while watching the match Brazil and Croatia at Qatar FIFA World Cup when she shouted out a lot of Brazil's game. During the ophthalmologic evaluation, her visual acuity (VA) was 1.0 on her right eye and hand motion (HM) on her left eye (OS). Biomicroscopy and intraocular pressure were normal in both eyes. Fundoscopy of the right eye showed no changes. But fundoscopy of the left eye showed preretinal hemorrhage affecting the macular region. The patient have undergone ophthalmic examination including color fundus retinography, near infrared reflectance and spectral-domain optical coherence tomography (SD-OCT) (Figures 1-3). The diagnostic hypothesis of valsalva retinopathy was made due to the history and findings on clinical and imaging examinations. Nd:YAG laser treatment was indicated.



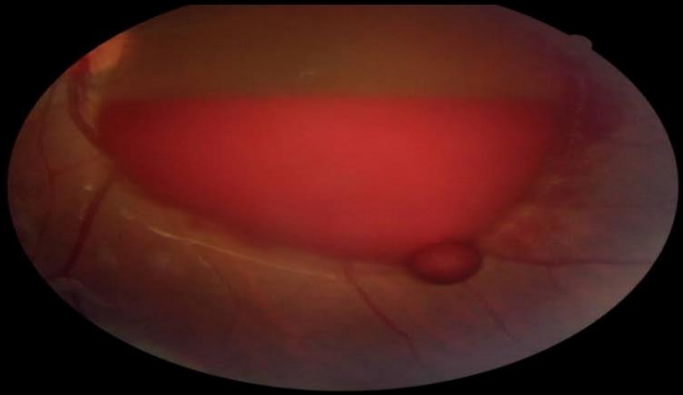
**Figure 1.** Color fundus of left eye showing a pre retinal hemorrhage



**Figure 2.** Near InfraRed Reflectance showing central blockage due to hemorrhage



**Figure 3.** OCT B Scan showing internal sub-limiting hemorrhage



**Figure 4.** Retinography immediately after ND YAG laser treatment at the inferior margin of the lesion

## DISCUSSION

Preretinal haemorrhages secondary to Valsalva retinopathy usually resolve by themselves in a few weeks to several months (4). However, a quick recovery is desired by most of the patients belonging to a younger age group, in these cases, ND-YAG laser is an option. ND-YAG laser treatment is a non invasive method, which enables the drainage of the extensive premacular subhyaloid haemorrhage into the vitreous (1). This method is used for premacular subhyaloid haemorrhages owing to Valsalva retinopathy, proliferative diabetic retinopathy, retinal artery macroaneurysm, branch retinal vein occlusion.(5). If there is an insufficient spontaneous resorption or no drainage with Nd:YAG laser due to coagulated blood, vitrectomy (PPV) can be the best treatment option. Unfortunately our patient did not evolve with total resolution of the blood after yag laser, and vitrectomy was indicated.

## CONCLUSION

Valsalva Retinopathy is a preretinal hemorrhage. Diagnosis is primary based on history and ophthalmologic examination. The OCT can be used to determine the location of the hemorrhage. Management can be observation of spontaneous resolution or Nd:YAG laser can be an option to disrupt the MLI and produce a faster resolution. In cases that hemorrhage do not resolve, PPV is an option.

## REFERENCES

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