



INSTITUTO DE  
CIRURGIA OCULAR  
DE BRASÍLIA



Importance of Optomap ultra-wide field to show the retinal tear of the bullous retinal detachment and to identify the tear in the contra-lateral eye. Report of two consecutive cases

Luiz EO Sousa<sup>1</sup>, Gabriel GK Sousa<sup>2</sup>, Luiz CK Sousa<sup>3</sup>, Alípio Sousa-Neto<sup>4</sup>, Raul NG Vianna<sup>5</sup>

**ABSTRACT: PURPOSE:** we understand that the gold standard for exam the retina still binocular indirect Ophthalmoscopy, and this consecutive two cases demonstrate the importance of diagnosis of the retinal tear to indicate the treatment, to evaluate de contra- lateral eye and to show to the patient what he has and what should be done. This is an important tool in the process of gain the confidence of the patient. In the great majority of the cases, the patient doesn't know the surgeon whom he was referred to perform the surgery. **METHODS:** We present two consecutive cases of bullous retinal detachment whom the patients had vision of counter fingers, at first evaluation. They were seen with 15 days of difference in time frame. First one MGF, 61 years old, myopic, pseudophake 7 years ago. The second one MAF, 73 years old emmetrope, only presbyopia, no surgeries. The Optomap ultra-wide field was used for diagnosis of the tears, of both eyes at first visit, to show the retinal tear in the retinal detachment, right before the laser treatment (3rd day pos operative pneumatic retinopexy) and right after the laser treatment. All the images were showed to the patients and families. **RESULTS:** The Optomap showed retinal tear in the supero-temporal quadrant in the first patient e superior quadrant in the second patient. The contra-lateral eye of both patients had horse shoes teras en the temporal quadrant. They underwent to laser procedures in the contra-lateral eyes and to pneumatic retinopexy with 0.3 ml C3F8 gás. Ten minutes after the procedure with had position, the bullous retinal detachment partially regressed and the optic nerve and the macula could be seen. In the third pos-operative day they had laser treatment of the tears. **DISCUSSION:** The use of the Optomap ultra-wide field facilitate the diagnosis of the tears, of the detached eyes and the contra-lateral eyes, was an important tool of explanation to the patients and their families, and the evaluation of the evolution could be well documented

**INTRODUCTION:** A rhegmatogenous retinal detachment (RRD) can occur in eyes with peripheral retinal degenerations like lattice degeneration, snail-track degeneration, retinal tears/holes, degenerative retinoschisis, cystic retinal tufts, and, rarely, zonular traction tufts.[6] With improving technology and better outcomes over the past few decades, we have seen an increase in surgical correction of refractive errors, particularly myopia. <sup>1</sup> The Optos Optomap Daytona Panoramic 200Tx (Daytona, Optos□, UK) is one such device that can be used for retinal screening of peripheral degenerative lesions.[20-22] It is a confocal laser scanning ophthalmoscope designed to obtain wide-field images of the retina, more than 200° in one single image. This image can be obtained even without pharmacological mydriasis with an acquisition time of <0.4 seconds.[23] Hence, Ultrawide field imaging is increasingly being used in teleophthalmology settings, especially for screening of diabetic retinopathy.[24,25] Although this device has been touted as a baseline retinal examination tool in a number of ocular pathologies like cataract, eye trauma, and diabetic retinopathy,[26-28] there is little evidence in the literature reporting its sensitivity and specificity for the identification of peripheral retinal lesions.[20-22] Also, there is a huge variation in the detection rate of peripheral lesions ranging from 57% to 74% on the non-dilated Optomap images.[20,21] Identification of lesions on Optomap images can vary between readers[20,22] and these variations can be used to identify readers with a minimum basic level of retinal training for maximum agreement with retinal examination findings.

**Purpose:** we presented these two consecutive cases to demonstrate the importance of diagnosis of the retinal tear to indicate the treatment, to evaluate de contra-lateral eye and to show to the patient what he has and what should be done. This is an important tool in the process of gain the confidence of the patient. In the

great majority of the cases, the patient doesn't know the surgeon whom he was referred to perform the surgery

**CASE DESCRIPTION:** We present two consecutive cases of bullous retinal detachment whom the patients had vision of counter fingers, at first evaluation. They were seen with 15 days of difference in time frame. First one MGF, 61 years old, myopic, pseudophakia 7 years before.

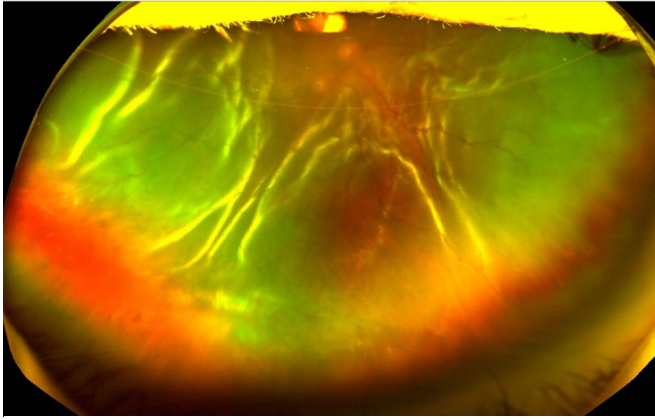


Fig 1 OD retinal detachment

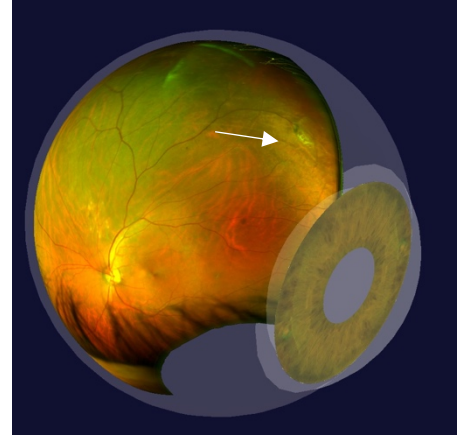


Fig 2 Lattice degeneration OS



Fig 3 OS Pos immediate laser Photocoagulation  
Lattice degeneration OS

The second one MAF, 73 years old emmetrope, only presbyopia, no surgeries. The Optomap ultra-wide field was used for diagnosis of the tears, of both eyes at first visit, to show the retinal tear in the retinal detachment, right before the laser treatment (3rd day pos operative pneumatic retinopexy) and right after the laser treatment. All the images were showed to the patients and families.

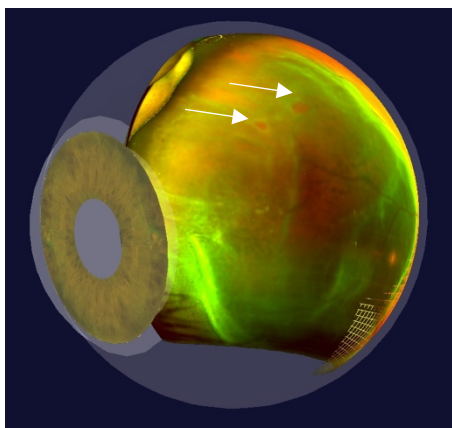


Fig 4 OD retinal detachment. Two superior tears (arrows)

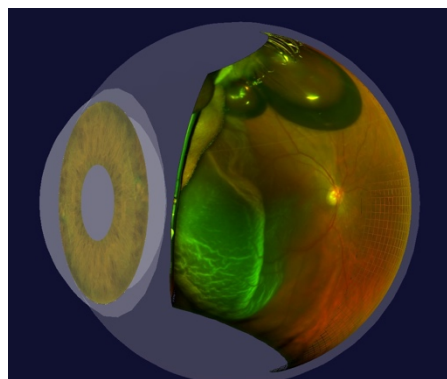


Fig 5. 15 minutes after C3F8 gas injection

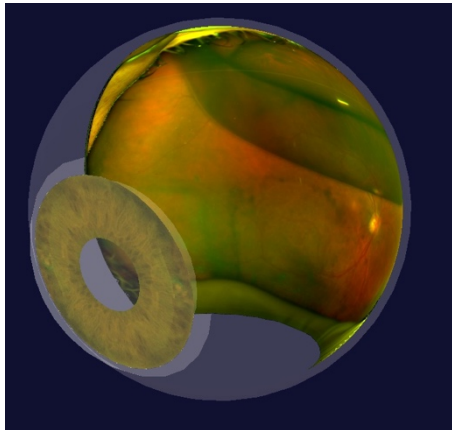


Fig 6. OD retina reattached, 3 days after C3F8 gas injection.

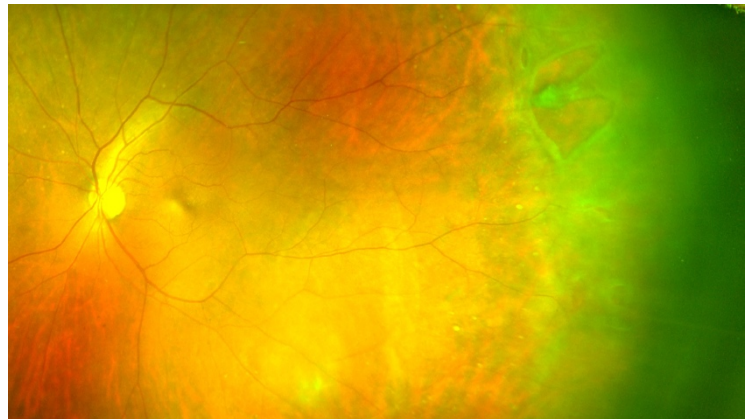


Fig 7 OS Horse shoe tear (white arrow) and five other retinal breaks at the contralateral eye, with no symptoms. See arrows.

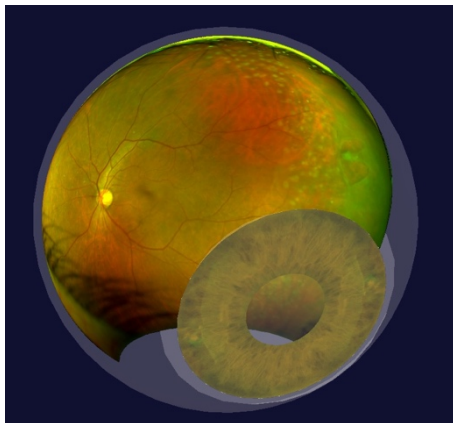


Fig 8. Horse shoe retinal tear at contralateral eye. Pos immediate laser optomap

**RESULTS:** The Optomap showed retinal tear in the supero-temporal quadrant in the first patient e superior quadrant in the second patient. The contra-lateral eye of both patients had horse shoes tears in the temporal quadrant. They underwent to laser procedures in the contra-lateral eyes and to pneumatic retinopexy with 0.3 ml C3F8 gas. Fifteen minutes after the procedure with head position, the bullous retinal detachment partially regressed and the optic nerve and the macula could be seen. In the third pos-operative day they had laser treatment of the tears.

**DISCUSSION:** The use of the Optomap ultrawide field facilitate the diagnosis of the tears, of the detached eyes and the contra-lateral eyes. It was an important tool of explanation to the patients and their families, and the evaluation of the evolution could

**FINAL COMMENTS:** Retinal detachment is a blind disease. It is very important show to the patients and their families the disease and what should be expected with the treatment. Optomap is a technology that gives this opportunity to the ophthalmologist.

## References

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1. Medical Student of 10 period Uniceplac Brasilia DF Brazil
2. Medical Student of 7 period Uniceplac Brasilia DF Brazil
3. Director of Instituto de Cirurgia Ocular de Brasilia (ICOB) Brazil
4. Professor of Oftalmologia da Universidade federal Fluminense –UFF Niterói Brazil