



# Comotio Retinae After Mechanical Trauma: Case Report

Beatriz de Sá Mota<sup>1</sup>, Igor Neves Coelho<sup>2</sup>, Daniel da Rocha Lucena<sup>3</sup>, Marcus Felipe Jardim do Nascimento<sup>1</sup>, Taina Rolim Machado Cornelio<sup>1</sup>, Sarah Mota Goncalo<sup>1</sup>, Loyze Petronio Leite<sup>1</sup>, João Victor Notini Arcanjo<sup>1</sup>

<sup>1</sup>Residente da Escola Cearense de Oftalmologia, <sup>2</sup>Preceptor da Escola Cearense de Oftalmologia, <sup>3</sup>Preceptor-chefe da Escola Cearense de Oftalmologia

## PURPOSE

Comotio Retinae is an ophthalmic condition characterized by retinal pallor resulting from the disruption of the outer segments of photoreceptors, usually due to mechanical ocular trauma. This condition can affect both the central and peripheral regions of the retina, referred to as Berlin edema when it involves the macular region. The manifestations of Comotio Retinae vary in intensity and prognosis, classified as concussion and retinal contusion, the latter being more severe and characterized by pallor associated with retinal hemorrhage.

This report aims to present a case of Comotio Retinae after mechanical ocular trauma.

## METHODS

This is a descriptive, single-arm case report for which a complete review of the patient's medical records was carried out. Reports and images of his retinographies were also compiled.



48<sup>th</sup> BRAVS Meeting

**RETINA  
2024**

CONNECTING SCIENCE  
TO REAL WORLD

# Comotio Retinae After Mechanical Trauma: Case Report

Beatriz de Sá Mota<sup>1</sup>, Igor Neves Coelho<sup>2</sup>, Daniel da Rocha Lucena<sup>3</sup>, Marcus Felipe Jardim do Nascimento<sup>1</sup>, Taina Rolim Machado Cornelio<sup>1</sup>, Sarah Mota Goncalo<sup>1</sup>, Loyze Petronio Leite<sup>1</sup>, João Victor Notini Arcanjo<sup>1</sup>

<sup>1</sup>Residente da Escola Cearense de Oftalmologia, <sup>2</sup>Preceptor da Escola Cearense de Oftalmologia, <sup>3</sup>Preceptor-chefe da Escola Cearense de Oftalmologia

## RESULTS

Male patient, 42 years old, reported mechanical ocular trauma (blow) to the right eye (OD). Initial ophthalmic examination showed visual acuity of 20/50 in OD and fundoscopy revealed marked pallor in the upper third of the retina involving the macular region, associated with superior preretinal hemorrhage. The evaluation classified the case as Comotio Retinae associated with retinal contusion.

## DISCUSSION

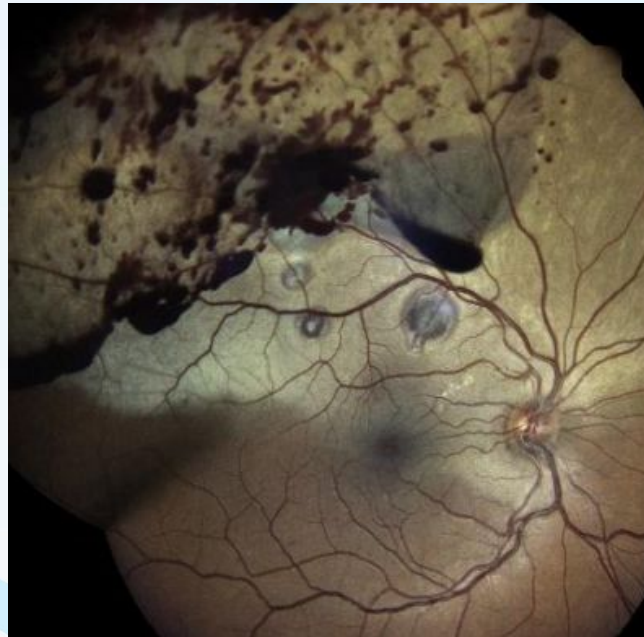
In many cases, Comotio Retinae has a favorable prognosis, and there is no consensus on the need for medical therapies. However, the use of corticosteroids has shown promising results in reducing edema as well as improving visual acuity. Given the described diagnosis, the administration of this drug was chosen, aiming not only for the improvement of visual acuity but also to minimize the risks of future complications.

# Comotio Retinae After Mechanical Trauma: Case Report

Beatriz de Sá Mota<sup>1</sup>, Igor Neves Coelho<sup>2</sup>, Daniel da Rocha Lucena<sup>3</sup>, Marcus Felipe Jardim do Nascimento<sup>1</sup>, Taina Rolim Machado Cornelio<sup>1</sup>, Sarah Mota Goncalo<sup>1</sup>, Loyze Petronio Leite<sup>1</sup>, João Victor Notini Arcanjo<sup>1</sup>

<sup>1</sup>Residente da Escola Cearense de Oftalmologia, <sup>2</sup>Preceptor da Escola Cearense de Oftalmologia, <sup>3</sup>Preceptor-chefe da Escola Cearense de Oftalmologia

**Figure 1:** Retinography examination showing retinal pallor associated with areas of retinal hemorrhage



48<sup>th</sup> BRAVS Meeting

**RETINA  
2024**

CONNECTING SCIENCE  
TO REAL WORLD

# Comotio Retinae After Mechanical Trauma: Case Report

Beatriz de Sá Mota<sup>1</sup>, Igor Neves Coelho<sup>2</sup>, Daniel da Rocha Lucena<sup>3</sup>, Marcus Felipe Jardim do Nascimento<sup>1</sup>, Taina Rolim Machado Cornelio<sup>1</sup>, Sarah Mota Goncalo<sup>1</sup>, Loyze Petronio Leite<sup>1</sup>, João Victor Notini Arcanjo<sup>1</sup>

<sup>1</sup>Residente da Escola Cearense de Oftalmologia, <sup>2</sup>Preceptor da Escola Cearense de Oftalmologia, <sup>3</sup>Preceptor-chefe da Escola Cearense de Oftalmologia

## CONCLUSION

This case report emphasizes the importance of early diagnosis and the adoption of effective therapeutic measures in managing Comotio Retinae. Continuous monitoring and prompt intervention were crucial to optimize visual recovery and prevent long-term complications.

## REFERENCES

1. Mansour, A.M., W.R. Green, and C. Hogge, Histopathology of commotio retinae. Retina, 1992. 12(1): p. 24-8.

2. Park JY, Nam WH, Kim SH, Jang SY, Ohn YH, Park TK. Evaluation of the central macula in commotio retinae not associated with other types of traumatic retinopathy. Korean J Ophthalmol. 2011;25(4):262-7.
3. . Shakin JL, Yannuzzi LA. Posterior segment manifestations of orbital trauma. Adv Ophthalmic Plast Reconstr Surg. 1987;6:115-35.
4. Blegen HM, Santamaria JA, Mehta A, Reed DS, Drayna PM, Davies B. Patterns and prognosis of commotio retinae in orbital wall fractures. Ther Adv Ophthalmol. 2019;11:2515841419862133.

