

# A Typical Presentation of Purtscher's Retinopathy

## Uma Apresentação Típica da Retinopatia de Purtscher

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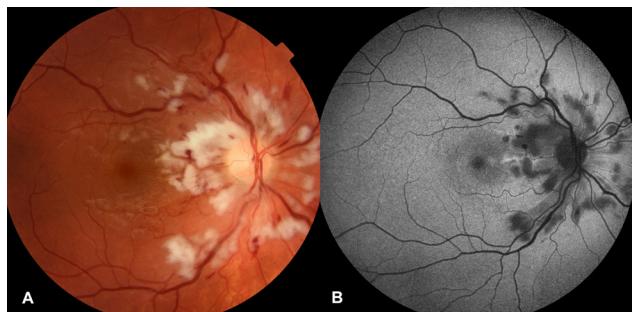
**KEYWORDS:** Retina; Retinal Diseases; Visual Acuity

**PALAVRAS-CHAVE:** Acuidade Visual; Doenças Retinianas; Retina

### IMAGE DESCRIPTION

Purtscher's retinopathy is a rare, sight-threatening retinal disorder associated with numerous types of trauma. It has been firstly described in 1910 by Otmar Purtscher.<sup>1,2</sup> Although the exact pathogenesis remains unclear, all clinical features suggest microembolic occlusion of the retinal precapillary arterioles.<sup>3</sup> It frequently leads to sudden but reversible visual loss following the precipitating condition. Apart from the treatment of the underlying etiology, no therapeutic guidelines exist.<sup>4</sup>

A 25-year-old male presented to our emergency department with sudden, unilateral and painless visual loss 1 week after the surgical correction of a lumbar spine fracture due to severe lumbar trauma. Best-corrected visual acuity (BCVA) was 20/200 in the affected eye and fundoscopic examination revealed multiple cotton-wool spots, Purtscher flecken and intraretinal hemorrhages with peripapillary distribution (A). Fundus autofluorescence displayed several hypofluorescent areas (B). Optical coherence tomography showed hyperreflective inner retinal layers and subretinal fluid. Full examination of the fellow eye was unremarkable. The patient started a course of high-dose oral steroids, followed by a slow tapering. After 1 month, BCVA was 20/25 and fundoscopy revealed a complete resolution of the retinal findings. Optical coherence tomography displayed mild inner retinal atrophy and focal extrafoveal ellipsoid zone disruption with complete reabsorption of subretinal fluid.



**Figure:** (A) Fundoscopic examination revealed multiple cotton-wool spots, Purtscher flecken and intraretinal hemorrhages with peripapillary distribution; (B) Fundus autofluorescence displayed several hypofluorescent areas.

### ETHICAL DISCLOSURES

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**Patient Consent:** Consent for publication was obtained.

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## RESPONSABILIDADES ÉTICAS

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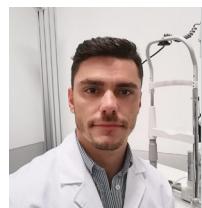
**Confidencialidade dos Dados:** Os autores declaram ter seguido os protocolos da sua instituição acerca da publicação dos dados de doentes.

**Consentimento:** Consentimento do doente para publicação obtido.

**Proveniência e Revisão por Pares:** Não comissionado; revisão externa por pares.

## REFERENCES

1. Purtscher O. Noch unbekannte befunde nach schadel-trauma. Ber Dtsch Ophthalmol Ges. 1910;36:294-301.
2. Purtscher O. Angiopathia retinae traumatica. Lymphorrhagien des Augengrundes. Graefes Arch Ophthalmol. 1912;82:347-371.
3. Agrawal A, McKibbin MA. Purtscher's and Purtscher-like retinopathies: a review. Surv Ophthalmol. 2006;51:129-36. doi: 10.1016/j.survophthal.2005.12.003.
4. Miguel AI, Henriques F, Azevedo LF, Loureiro AJ, Maberley DA. Systematic review of Purtscher's and Purtscher-like retinopathies. Eye. 2013;27:1-13. doi: 10.1038/eye.2012.222.



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