

# KYRIELEIS ARTERIOLITIS ASSOCIATED WITH JENSEN'S NEURORETINITIS

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## PURPOSE

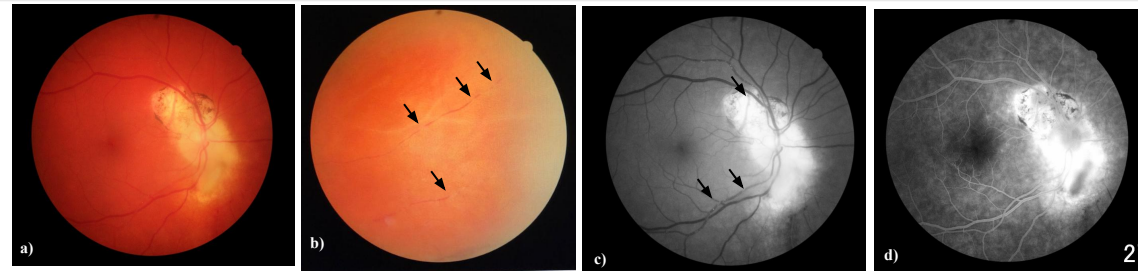
To describe *Kyrieleis arterioliitis*, a clinical finding associated with severe ocular inflammation.

## METHODS

Case report through analysis of medical records and multimodal exams with a review of literature.

## RESULTS

A 47-year-old woman presented to us with unilateral ocular pain for 4 days when blinking her right eye. She reported a crescent scotoma in the temporal visual field of this eye, and has a history of optic neuritis (10 years ago). She reported that, at the time, all serologies were negative, including for toxoplasmosis. She had already investigated Multiple Sclerosis, with negative CSF and MRI results. She denied other comorbidities, including joint pain, skin or mucosal lesions. The best-corrected visual acuity in the right eye was 20/25, and intraocular pressure 12 mmHg. Biomicroscopy showed a reactive pupil, an intense papillary reaction in the upper tarsal conjunctiva, without chamber reaction. In funduscopy, papilledema was visualized. Corticosteroids were started and a return visit was requested. In 10 days, biomicroscopy evidenced edema regression, it showed also an exudative lesion on the optic disc with an area of peridiscal hemorrhage, thinning of the vessels and the presence of *Kyrieleis arterioliitis* in the temporal and inferior regions. It also evidenced tapered epiretinal hemorrhage in the temporal region, diffuse RPE rarefaction, areas of ischemic retina in the middle periphery at 360 degrees, with applied retina. An angiography with contrast was performed, which showed leakage of the optic disc due to neuritis until late stages, which, associated with the finding of *Kyrieleis arterioliitis*, led to the diagnostic hypothesis of Jensen's neuroretinopathy due to probable toxoplasmosis. Treatment with oral sulfamethoxazole + trimethoprim was started and new serologies were requested.



**Figures:** Right eye (OD) colour retinography (a and b), red-free retinography (c) and fluorescence angiography (d) Arrows pointed to *Kyrieleis Arterioliitis*

## DISCUSSION

*Kyrieleis arterioliitis*, also known as segmental retinal arteritis, is a rare pattern of arterioliitis seen on funduscopy as pale yellow exudates or periarterial plaques around the branches of the central retinal artery. The most recent studies on the subject argue that *Kyrieleis arterioliitis* does not reflect periarterial damage as previously believed, but rather originates from damage to the endothelium of the arterial branches. This uncommon clinical finding, which maintains with uncertain pathology, can be present in severe inflammatory ophthalmologic conditions, including posterior uveitis caused by *Toxoplasma gondii*, as in the case that is reported in this article. Other possible infectious agents like *Treponema pallidum*, Cytomegalovirus, Herpes Simplex Virus- 1 and 2, *Mycobacterium tuberculosis* and *Varicella-Zoster Virus* are described in the literature, as well as non infectious causes. An important differential diagnosis are the atheromatous plaques, and the fluorescein angiography helps distinguish the diseases, in which in *kyrieleis* there is no evidence of occlusive phenomenon or leakage. This *kyrieleis* plaques can be the initial manifestation in ocular toxoplasmosis and reflects the severity of the inflammation. Its presence, however, does not denote a worse prognosis. Although the plaques are generally reversible with control of the ocular inflammation, they can persist after the resolution of chorioretinitis.

## REFERENCES

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