Unique case of presumed ocular tuberculosis presenting as bilateral pseudoretinitis pigmentosa

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ABSTRACT

Ocular tuberculosis is often a challenging diagnosis with extremely diverse clinical manifestations and, most times, impractical bacilli isolation. Here we describe an unprecedented case of presumed ocular tuberculosis presenting with bilateral pseudoretinitis pigmentosa and retinal vasculitis.

1. Case report

A 47-year-old female was referred due to progressive painless visual loss noticed approximately one year before. She had no relevant medical history and no family history of acquired or inherited eye disease. She denied any systemic symptoms and her general physical examination was unremarkable. Best corrected visual acuity was 20/25 in the right eye (OD) and 20/30 in the left eye (OS). Slit-lamp exam showed no signs of anterior segment inflammation. Fundoscopy in OU revealed optic discs with no pallor, diminished foveal reflex, arteriolar attenuation and diffuse retinal hypopigmentation sparing only the macula. Rare linear clumps of pigment were seen in mid-periphery alongside the blood vessels in OU (Fig. 1A). Fundus autofluorescence in OU showed an abnormal perifoveal hyperautofluorescent ring and dense stippled hypoautofluorescence from the macula through the mid-periphery (Fig. 1B). Spectral domain optical coherence tomography (SD-OCT) showed vitreous cells, inner nuclear cystoid hyporeflective spaces and circumferential outer retinal thinning, preserving only the foveal region (Fig. 1D). Fluorescein angiography in OU revealed extensive stippled window defect preserving only the perifoveal region, with late diffuse capillary leakage, predominantly involving veins (Fig. 2E). Standard automated perimetry (SAP) disclosed severely constricted visual fields in OU and full-field electroretinography showed undetectable scotopic and photopic responses. Autoimmune retinopathy, retinitis pigmentosa and its infectious endemic mimickers were considered as differential diagnoses, leading to an extensive laboratory and imaging work-up that included rheumatologic, autoimmune, infectious and oncologic markers. Surprisingly, Mantoux test was found strongly positive, 18 mm induration (Fig. 1C). Chest computed tomography showed a calcified nodule in the apical segment of the upper right pulmonary lobe, compatible with a previous primary lesion of circumscribed tuberculosis. The patient was, then, referred to the Pneumologist to begin empiric anti-tuberculosis traditional regimen with Ethambutol, Rifampicin, Isoniazid and Pyrazinamide for a two-month period followed by a four-month period of the last two drugs. Corticosteroids were not used as adjunct treatment. Right after completion, fluorescein angiography was repeated showing resolution of vascular leakage (Fig. 2F). At the one-year follow-up visit, BCVA, SAP and SD-OCT remained all unchanged from baseline.

2. Discussion

Commonly associated with other causes such as chronic syphilitic uveitis, ocular trauma and cancer-associated retinopathy,1 bilateral pseudoretinitis pigmentosa has not been formally related to ocular tuberculosis to this date. Although its most common presentation is tubercular choroiditis, due to the broad variety of manifestations, ocular tuberculosis is something to always consider in the differential diagnosis, especially with concurrent local or individual epidemiology. Alike retinal vasculitis and serpiginous-like choroiditis, an immune-mediated hypersensitivity reaction could possibly play a role in the pathogenesis of these fundoscopic signs,2 mimicking an autoimmune retinopathy. Despite still having one of the highest rates of systemic tuberculosis in the world,3 ocular cases as the one presented are rare and often misdiagnosed in Brazil.

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3. Conclusion

Ocular tuberculosis is often a challenging diagnosis with extremely diverse clinical manifestations and, most time, impractical bacilli isolation. Here we described an unprecedent case of presumed ocular tuberculosis presenting with bilateral pseudoretinitis pigmentosa and retinal vasculitis.

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Authorship

All authors attest that they meet the current ICMJE criteria for Authorship.
Declaration of competing interest

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