

Transient therapeutic effect of vitrectomy in primary intraocular lymphoma

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Abstract This photo essay shows the transient therapeutic effect of pars plana vitrectomy (PPV) in a patient affected by primary intraocular lymphoma (PIOL). PPV is crucial for the diagnosis of PIOL, but it may also play a role in the therapeutic approach.

Keywords Primary intraocular lymphoma · Vitrectomy · Uveitis

Primary intraocular lymphomas (PIOL) are aggressive tumors that may also involve the central nervous system (CNS). PIOL are usually extranodal, non-Hodgkin, diffuse, large B-cell type lymphomas that belong to the family of primary CNS lymphomas [1]. T-cell PIOL have been also rarely reported. Clinical presentations typically include vitreous haze and a

yellowish tissue infiltrating the subretinal space, often mimicking posterior and intermediate uveitis.

The pictures show presence (Fig. 1), disappearance after diagnostic pars plana vitrectomy (PPV) (Fig. 2), and recurrence 20 days after surgery (Fig. 3) of a case of PIOL occurred in the left eye of a 70-year-old woman. Although first PPV did not allow a diagnosis, the removal of vitreous with resident inflammatory cells and mediators caused reduction of the secondary inflammatory process with regression of macular edema. Because vitritis and macular edema recurred, a second diagnostic PPV including vitreoretinal biopsy was performed. Immunohistological analysis of specimens (Fig. 4) confirmed diagnosis of PIOL, and a therapeutic regimen with intravitreal (IVT) methotrexate and rituximab was instituted.

Comment

PIOL is typically considered a Masquerade Syndrome. Diagnostic PPV is often crucial to differentiate PIOL from intermediate and posterior uveitis. Venkatesh et al. reported prolonged remission after PPV in a case of PIOL refractory to IVT chemotherapy [2]. In our case, PPV provided only a transient therapeutic effect probably due to removal of the reactive T-cell infiltrate in B-cell lymphomas [3]. In conclusion PPV is crucial in the diagnosis of PIOL, but it may also play an important role in the therapeutic approach.

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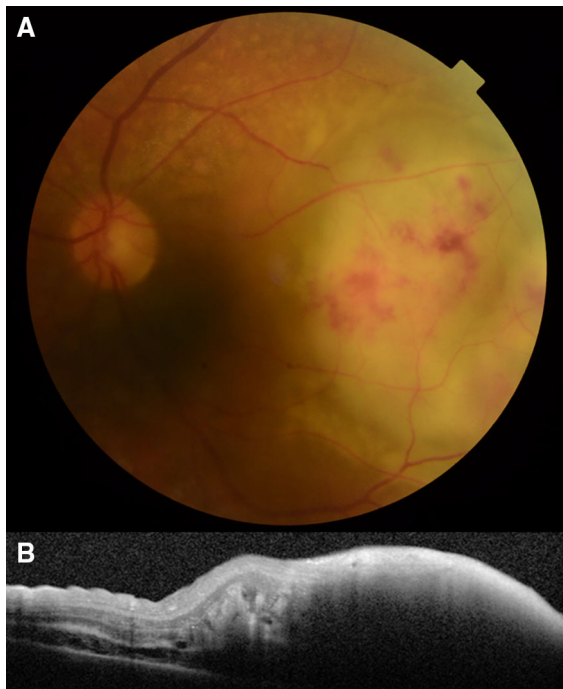


Fig. 1 Color fundus photograph (a) of a patient with PIOL showing massive yellow subretinal infiltrate that appear slightly hazy due to the overlying vitritis. b Corresponding Optical Coherence Tomography (OCT) B-scan of the macular area

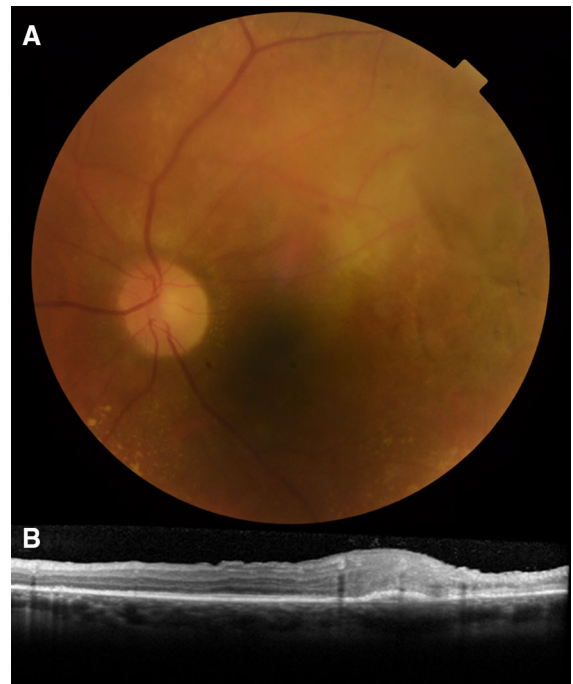


Fig. 3 Color fundus photograph (a) and corresponding OCT B-scan (b) 20 days after surgery, showing early signs of recurrence of the subretinal infiltrate in macular area

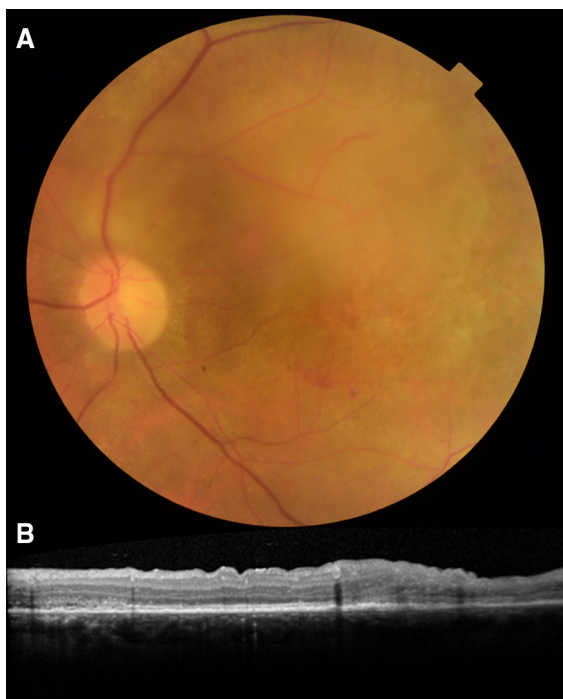


Fig. 2 Color fundus photograph (a) and corresponding OCT B-scan (b) of the same patient after diagnostic vitrectomy

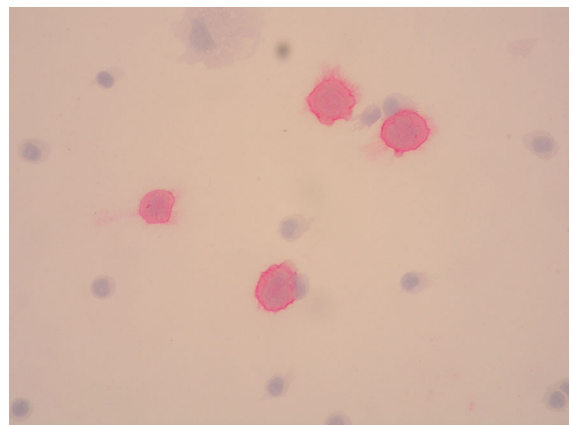


Fig. 4 Typical cytology of PIOL cells from the vitreous showing atypical large lymphoid B-cells CD 20+

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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