Refractory inflammatory CNV in Punctate Inner Choroidopathy

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Introduction

Punctate inner choroidopathy is a distinct type of posterior uveitis that is often bilateral and seen in younger populations, most often females and myopes.

PIC is characterized by multiple discrete yellow-white lesions at the level of retina, RPE and/or choroid.

Infectious etiology should be excluded prior to initiation of anti-inflammatory therapy.

Case Presentation

A 29 year old myopic female presents with 4 weeks of photopsias and 1 week of blurred central vision in her right eye. She is otherwise healthy. Dilated fundus examination reveals clear vitreous bilaterally and several yellow-white macular lesions of the right eye.

OCT reveals CNV with subretinal fluid. IVFA shows focal punctate hyperfluorescence and leakage.
ICG shows focal hypocyanescence. Humphrey visual field shows enlarged blind spot.. Fundus autofluorescence shows focal hypo-autofluorescence surrounded by hyper-autofluorescence.

Work up for infectious and autoimmune causes of posterior uveitis was unrevealing.

The CNV was initially treated unsuccessfully with intravitreal anti-VEGF and an oral Prednisone taper.

Intravitreal triamcinolone was successful in halting CNV progression.

Case Presentation (continued)

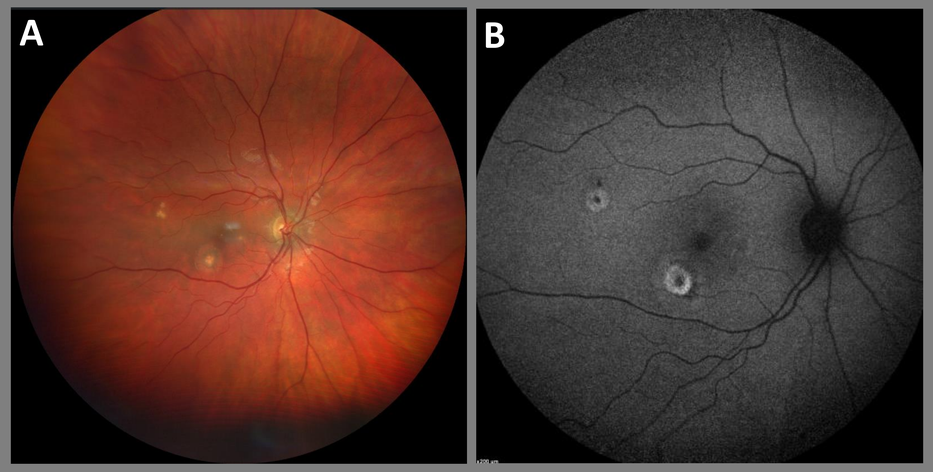

Figure 1A: fundus photograph illustrating macular lesions at presentation.
Figure 1B: fundus autofluorescence showing RPE hyper and hypoautofluoresence corresponding to lesions

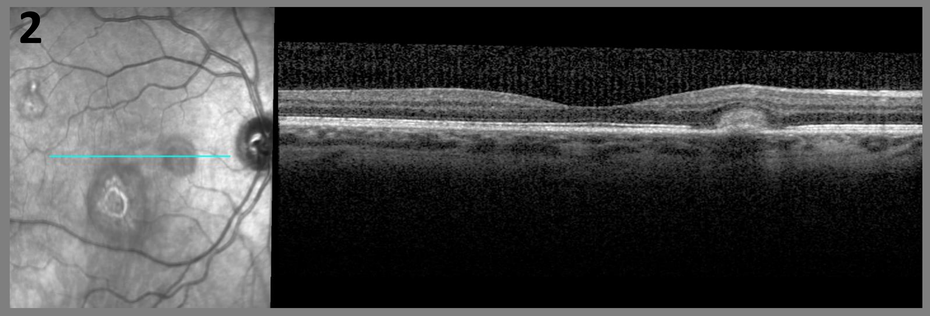

Figure 2: en face macular SD-OCT image of lesions and cross section revealing choroidal neovascular lesion

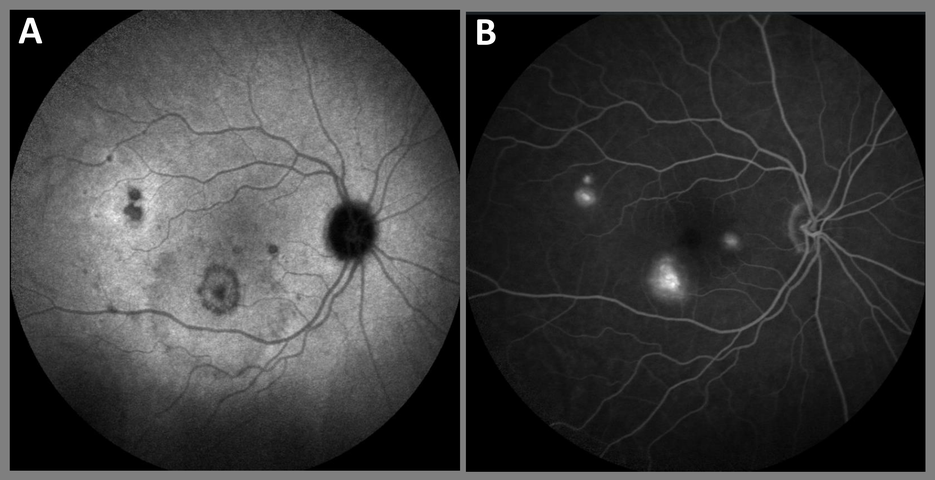

Figure 3A: ICG angiography showing multiple hypocyanescent lesions. 3B: IVFA showing multiple hyperfluorescent lesions with late leakage

Discussion

Punctate inner choroidopathy (PIC) is a white dot syndrome usually seen in otherwise healthy young myopic females.

Presenting symptoms often include metamorphopsia, photopsia, paracentral scotomas and asymmetric central visual loss. PIC lesions are small (100-200um), never associated with vitritis and rarely spread beyond the posterior pole.

Visual prognosis is generally favorable.

Conclusion

PIC is a rare idiopathic inflammatory posterior uveitis most commonly affecting young myopic women. It presents without vitritis. Although visual prognosis is generally favorable, there are high rates of CNV formation which may lead to visual morbidity and require systemic or intraocular treatments.

In refractory cases, inflammatory CNV can be treated with intravitreal corticosteroids with success as shown in this case. Rarely systemic immunomodulatory therapy may be needed.

References

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