ECRONICON OPEN ACCESS

EC OPHTHALMOLOGY
Case Report

Characterizing the White Dot Syndromes, Atypical Presentation of Inflammatory Chorioretinopathy during the Covid-19 Dilemma - Case Presentation

Bedan Aseel Hamoud* and Habeb Mustafa

Consultant Ophthalmic Surgeon, Ashford and Saint Peter's Hospitals NHS Trust, Chertsey, Surrey, United Kingdom

***Corresponding Author:** Bedan Aseel Hamoud, Consultant Ophthalmic Surgeon, Ashford and Saint Peter's Hospitals NHS Trust, Chertsey, Surrey, United Kingdom.

Received: March 06, 2023; **Published:** April 20, 2023

Abstract

Introduction: Acute posterior multifocal placoid pigment epitheliopathy APMPPE is a self-limiting disease non granulomatous inflammation of unknown ideology, it usually affects healthy young men and women, full recovery of the vision occurs after few months. We present a case that we followed her up for 3 years with recurrent attacks of choroiditis with atypical presentation of APMPPE that resulted in permanent loss of vision, she needed more than one immunosuppressant to control the disease.

Purpose: To highlight the presentation and management of atypical cases of uveitis. Early treatment can prevent visual loss.

Setting/Venue: Ophthalmology department at Ashford & St. Peter's Hospitals NHS Foundation Trust.

Keywords: *White Dot Syndromes; Inflammatory Chorioretinopathy; Covid-19 Dilemma; Acute Posterior Multifocal Placoid Pigment Epitheliopathy (APMPPE)*

Introduction

Patients with acute posterior multifocal placoid pigment epitheliopathy APMPPE usually present with a bilateral white creamy lesion at the level of pigment epithelium involving both eyes, the disease is monophasic lasting one to two months with good prognostic outcomes. On the other hand, serpiginous choroiditis is a disease that affects both eyes, being active in one eye at a time, it involves the macula or the peripapillary areas, it has a prolonged relapsing nature with ultimate choroidal atrophy. When the fovea is involved in the choroiditis, the central vision would be affected permanently. Nevertheless, in APMPPE complete recovery is the norm with almost perfect vision even when the macula is affected. There are, however, patients with overlapping presentation between the two diseases [1], we are discussing one such a case that present to us at the peak of the covid-19 pandemic.

Case Report

We reviewed the notes of a 17-year-old lady referred to our clinic with drastic bilateral loss of vision. She had a severe bang in the right side of her head 4 weeks earlier, left a right sided temporal haematoma, 3 weeks later she developed a severe migraine lasted 2 - 3 days for the first time. Few days later the vision started to deteriorate. She was healthy, not on any medication apart from a contraceptive patch. She has no history of foreign travel outside Europe in the last 12 months, she does not have cats at home.

Visual acuity VA was hand movement in the right eye, 6/36 in the left. Anterior segments were normal. There was mild cell infiltration, mainly centrally in the vitreous of both eyes. The fundi showed macular white lesions, very mild changes at the periphery. Optical coherent tomography OCT confirmed a swelling of the retina/choroid. The discs were healthy. Fundal auto-fluorescein FAF and fundal photos were taken. She was diagnosed with chorioretinitis/ retinochoroiditis, with possible acute posterior multifocal placoid pigment epitheliopathy APMPPE. We arranged a magnetic resonance imaging MRI head and orbits, chest x-ray, fundus fluorescence angiography FFA, and a full blood investigations.

Results

Her vision deteriorated to hand movement and counting finger in each eye. Her blood test investigations, MRI and chest x-ray were normal, no infection noticed. HLA A29, HLA B52 were negative. FAF showed hypo- fluorescence centrally in the macular lesions with hyper-fluorescence at the periphery. FFA showed early stages of leakage of fluorescence, hypo-fluorescent areas of the lesion with late hyper-fluorescent with leakage of fluorescent at the discs bilaterally. We started her on high dose of systemic steroid. This treatment was a bit challenging during the first wave of covid-19 when a very high infection rate was there in the community. After several weeks of treatment her VA improved to 6/60, 6/9 in each eye, the fundal lesions were still showing placoid lesions bilaterally with more distinct margins. The disease quiescent for a while, although with scarred retinae, nevertheless, her vision reached 6/9, 6/6 5 months after the first episode. The eyes were quite for 3 months without treatment, then the vision started to deteriorate again, with mild activity of the disease. We put her on systemic steroid plus mycophenolate this time, we kept seeing her, the vision stabilized at 6/12, 6/6 in each eye.

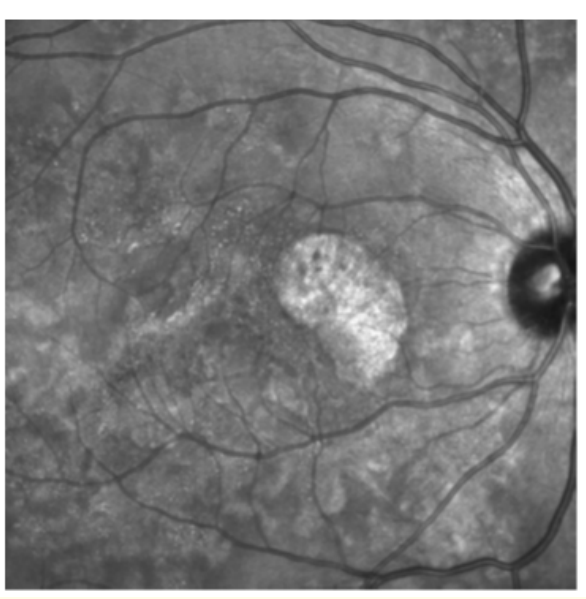

Figure 1: *Fundal photos and fundal autofluorescence showing the lesion extent in the right eye.*

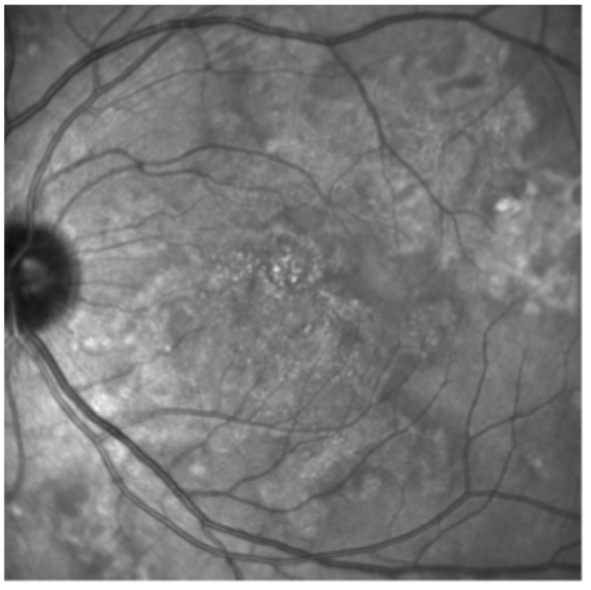

Figure 2: *Fundal photos and fundal autofluorescence showing the lesion extent in the left eye.*

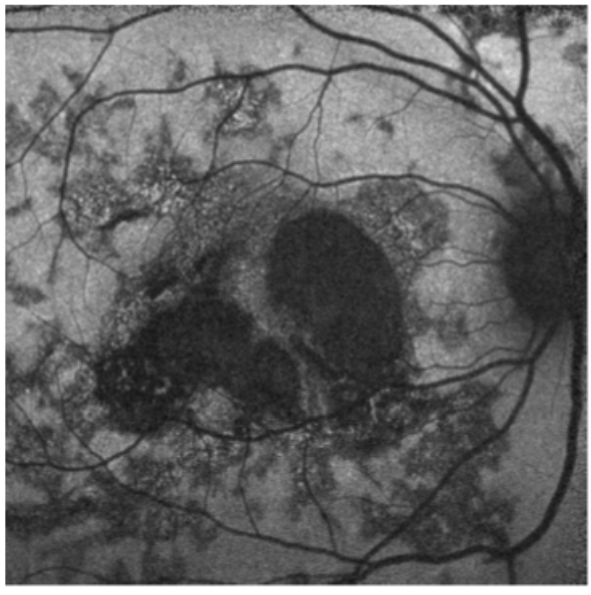

Figure 3: *Fundal photos and fundal autofluorescence showing the lesion extent in the right eye.*

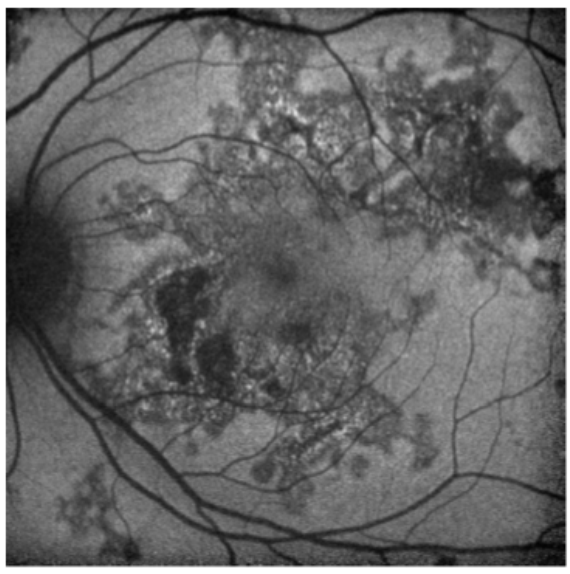

Figure 4: *Fundal photos and fundal autofluorescence showing the lesion extent in the left eye.*

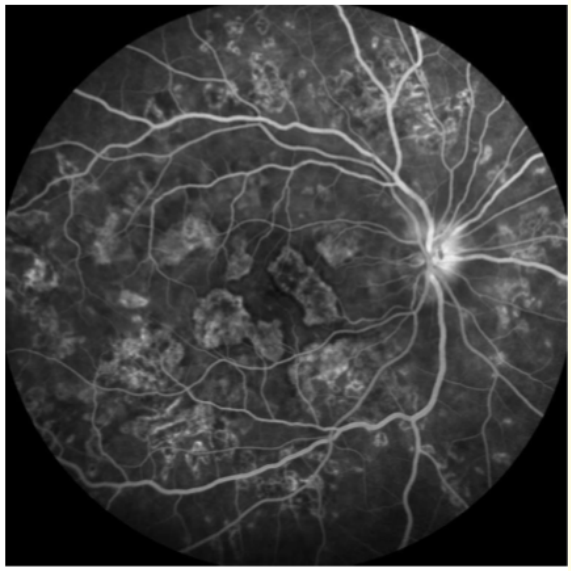

Figure 5: *RE Fundal Fluorescein Angiography high lighting the lesions.*

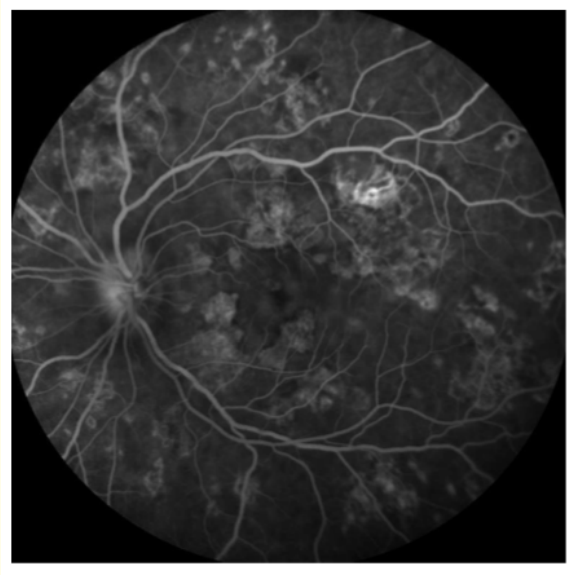

Figure 6: *LE fundal fluorescein angiography high lighting the lesions.*

Conclusion

Inflammatory chorioretinopathies of unknown aetiology are common uveitic entities that affect relatively young, otherwise healthy, patients.

These diseases primarily affect the posterior uveal tract and may present with white inflammatory lesions in retina, pigment epithelium, and/or choroid. Some of these conditions, like APMPPE and multiple evanescent white dot MEWD have a self-limited course and an extremely good visual prognosis with preservation of central vision. Others, such as serpiginous choroiditis, subretinal fibrosis and uveitis syndrome, can have a relentless and progressive course, require treatment with corticosteroids and other immunomodulatory agents, and can lead to blindness.

Viral infections have been associated with many of these conditions, but otherwise they have no identifiable cause. In the future, these entities may be proven to be autoimmune or infectious or both. It is also thought that these entities may represent different phenotypic disease manifestations of a single agent, differing in appearance only because of the underlying genotype of the individual affected.

Many of these conditions may be associated with serious retinal or choroidal sequelae, such as choroidal neovascularization or macular scars that could result in delayed visual loss even after the original disease process has become inactive [2,3].

Bibliography

1. BE Jones., *et al*. "Relentless placoid chorioretinitis: A new entity or an unusual variant of serpiginous chorioretinitis?" *Archives of Ophthalmology* 118.7 (2000): 931-938.

2. S Daniele., *et al*. "Progression of choroidal atrophy in acute posterior multifocal placoid pigment epitheliopathy". *Ophthalmologica* 212.1 (1998): 66-72.

3. M Olivia Jorge Simao Claudia Farinha. "Management of Acute Posterior Multifocal Placoid Pigment Epitheliopathy (APMPPE): Insight from multimodal imaging with OCTA". *Ophthalmological Medicine* (2020).

Volume 14 Issue 5 May 2023