



A Case of White Dot Syndrome

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Abstract

White dot syndromes are a group of inflammatory chorioretinal disorders with multiple white lesions at the level of the retinal pigment epithelium and outer retina causing visual disturbances. We report a case of multiple evanescent white dot syndrome (MEWDS) in an elderly male presenting with diminution of vision and a paracentral blind spot, highlighting the role of favourable visual outcome with early and conservative management along with multimodal imaging.

Keywords: White dot syndrome, MEWDS, optical coherence tomography, fundus autofluorescence, chorioretinal inflammation

Introduction

White dot syndromes comprise a heterogeneous group of posterior uveitic entities. They affect the outer retina, retinal pigment epithelium (RPE), and choroid. These include multiple evanescent white dot syndrome (MEWDS), acute posterior multifocal placoid pigment epitheliopathy (APMPPE), punctate inner choroidopathy (PIC), and others. MEWDS typically presents with sudden, unilateral visual symptoms. There could be recurrence although rarely. The course is usually self-limiting. The aetiology of the syndrome remains ambiguous and there is no definite evidence of systemic involvement.

Case Presentation

A 72-year-old male presented with sudden blurring of vision and paracentral scotoma in the right eye for 5 months. He had no history of ocular pain, redness, photophobia, trauma, or systemic illness. He had previously undergone cataract surgery in both eyes a year ago.

On examination, best-corrected visual acuity (BCVA) was 6/12 in the right eye and 6/9 in the left eye. Anterior segment examination of both eyes was normal with no signs of anterior chamber or vitreous inflammation. Intraocular pressure was within normal limits.

Fundus examination of the right eye revealed multiple small, greyish-white lesions at the level of the RPE clustered around the posterior pole and peripapillary area. The left eye fundus was relatively within normal limits.

Fundus autofluorescence (FAF) showed multiple hypoautofluorescent spots with surrounding hyperautofluorescent halos in right eye. Spectral-domain optical coherence tomography (OCT) demonstrated disruption of the ellipsoid zone and focal RPE irregularities corresponding to the lesions. Fluorescein angiography (FA) revealed early punctate hypofluorescence with late mild staining. There was no evidence of retinal vasculitis or choroidal neovascular membrane.

Based on clinical findings and multimodal imaging, a diagnosis of multiple evanescent white dot syndrome, a subtype of white dot syndrome, was made.

The patient was managed conservatively with systemic non-steroidal anti-inflammatory medication and topical eyedrops of the same group of drugs. At 4-week follow-up, BCVA improved to 6/9, with significant resolution of fundus lesions and restoration of the ellipsoid zone on OCT. It gradually improved to

6/6 on 8-week follow up of the patient with complete resolution of the fundus changes.

Discussion

MEWDS is an uncommon inflammatory disorder predominantly affecting young myopic females although can be seen in others. The disease is usually unilateral and otherwise self-limiting. Multimodal imaging plays a crucial role in diagnosis, particularly FAF and OCT, which demonstrate characteristic changes in the outer retina and RPE. Differentiation from other white dot syndromes and infectious chorioretinitis is essential to avoid unnecessary treatment.

Conclusion

White dot syndrome, particularly MEWDS, should be considered in patients presenting with acute visual symptoms and characteristic fundus findings which do not point to other acute inflammatory disorders. Early diagnosis using multimodal imaging and careful observation results in an excellent visual prognosis.

References:

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