

Long Term Response of Early Initiation of Azathioprine in Case of Harada's disease

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ABSTRACT

A 40 years old female presented with complaints of sudden diminution of vision and black spots in left eye associated with headache since a week. Fundus examination revealed yellowish subretinal fluid at macular area and some chorioretinal atrophy like lesions. After an array of investigations, patient was diagnosed with Harada's disease and started on pulse dose steroids and oral Azathioprine. Regular follow ups revealed maintained visual acuity over the year with no evidence of recurrence.

KEYWORDS: *Harada disease, optical coherence tomography (OCT), fundus fluorescein angiography (FFA), serous retinal detachment, Azathioprine*

1. INTRODUCTION

Vogt-Koyanagi-Harada (VKH) syndrome is an idiopathic multisystemic granulomatous autoimmune disease featuring inflammation of melanocyte rich tissues including the eye, central nervous system (CNS), inner ear, and skin. It is characterized by panuveitis with iridocyclitis, serous retinal detachments, diffuse choroidal swelling and optic disc hyperemia.^[1] It may be associated with neurologic manifestations: tinnitus, meningismus and cutaneous manifestations: alopecia, poliosis, vitiligo. Harada's disease component is mainly characterized by bilateral exudative uveitis with or without pleocytosis of cerebrospinal fluid.^[2] The key to successful therapy in VKH syndrome is early diagnosis, long term treatment and serial follow ups.

2. CASE DESCRIPTION

A 40-year-old female, presented with sudden diminution of vision with black spots in the left eye and headache since one week. Patient was systemically healthy, but mentioned that such a similar kind of occurrence had happened before, but self-resolved in a few days. On initial ocular examination, the best corrected visual acuity (BCVA) of the right eye was 20/20 and 20/125 in the left eye. Anterior segment appeared normal in both eyes. The intraocular pressures were within normal range. Right eye funduscopy showed single chorioretinal atrophic scar in the inferotemporal quadrant (Figure 1a), while left eye showed yellow tinge

of serous macular detachment with multiple hypopigmented lesions and chorioretinal atrophic patches in the temporal quadrant (Figure 1b).

OCT scan of the right eye revealed normal architecture, while left eye showed a myriad of findings. There were few intraretinal cystic spaces; large subretinal fluid cavity with multiple septae and areas of hyper reflectivity likely to be fibrin (Figure 2a,b). Enhanced depth imaging showed choroidal thickening in the area of macula. A fundus fluorescein angiography was advised which showed diffuse hyper fluorescence at macula with staining of chorioretinal patches temporal to macula (Figure 3a,b). No evident pin point leaks also suggested that the disease has already crossed its acute phase and might require aggressive and prolonged treatment. [2]

Based on systemic, clinical, FFA and OCT findings, final diagnosis of Harada disease was made and patient was started on steroid (Methylprednisolone) pulse therapy for 3 days followed by oral steroids and tab Azathioprine (50 mg TDS) after consultation with the physician and rheumatologist. A CSF tap was advised by the physician, which revealed no abnormality. One-month post treatment, patient's BCVA improved to 20/20 in both eyes. OCT scan of left eye revealed a flat retina with trace subretinal fluid and decrease in choroidal thickness (Figure 4a). Oral Azathioprine was tapered from 50mg TDS (3 months) to 50mg BD (3 months) and 50mg OD (3 months) in consultation with the rheumatologist. Sequential scans were done every three months (Figure 4b) till one year and patient maintained a stable visual acuity with no recurrences or systemic events at 1 year.

FIGURE LEGENDS



Figure 1a - Fundus photo of right eye showing a chorioretinal atrophic scar
Figure 1b - Fundus photo of left eye showing serous macular detachment with multiple hypopigmented lesions and chorioretinal atrophic patches

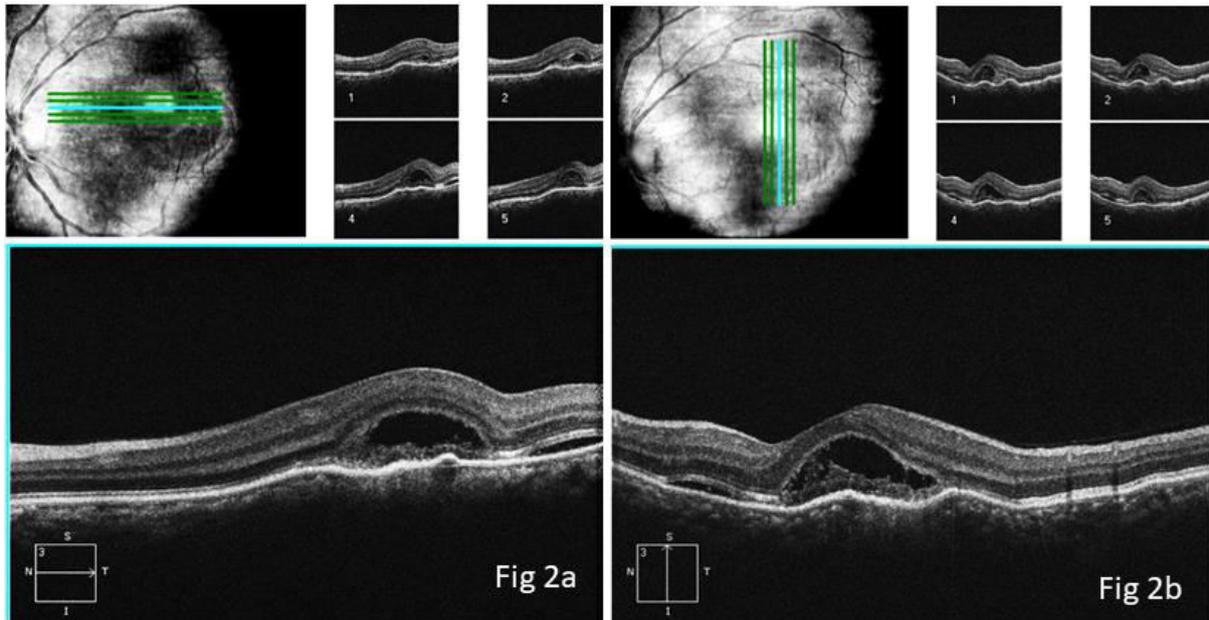


Figure 2 a, b -OCT of left eye showing few intraretinal cystic spaces, large subretinal fluid cavity with multiple septae and areas of hyper reflectivity. Enhanced depth imaging showed choroidal thickening in the area of macula.

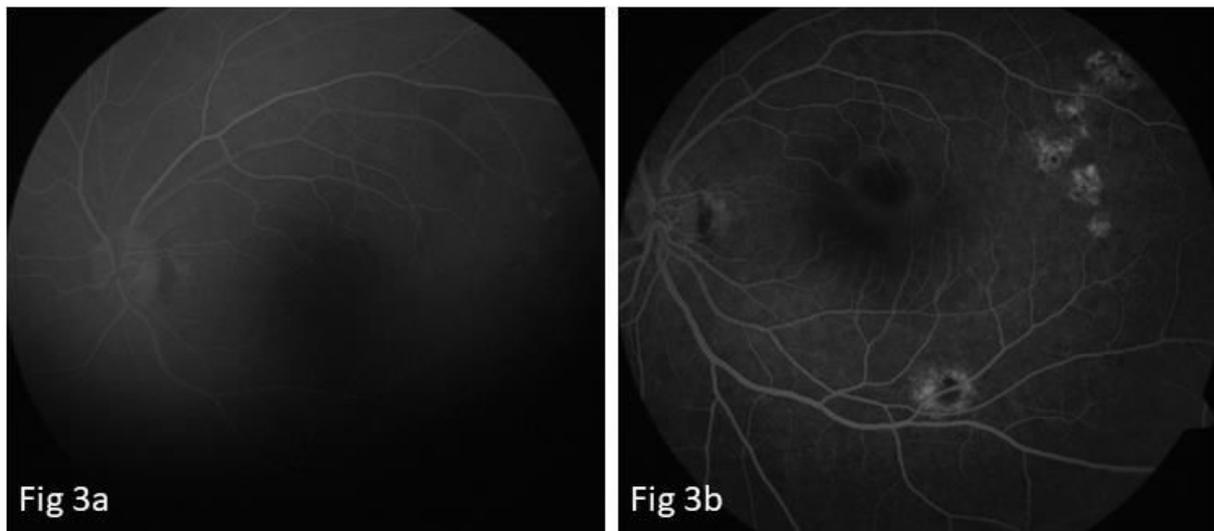


Figure 3a - Early phase fundus fluorescein angiogram of left eye early stippled leaks temporal to macula.

Figure 3b - Late phase fundus fluorescein angiogram of left eye showing pooling of dye in subretinal space at macula and staining of chorioretinal atrophic patches and no evident pin point leaks

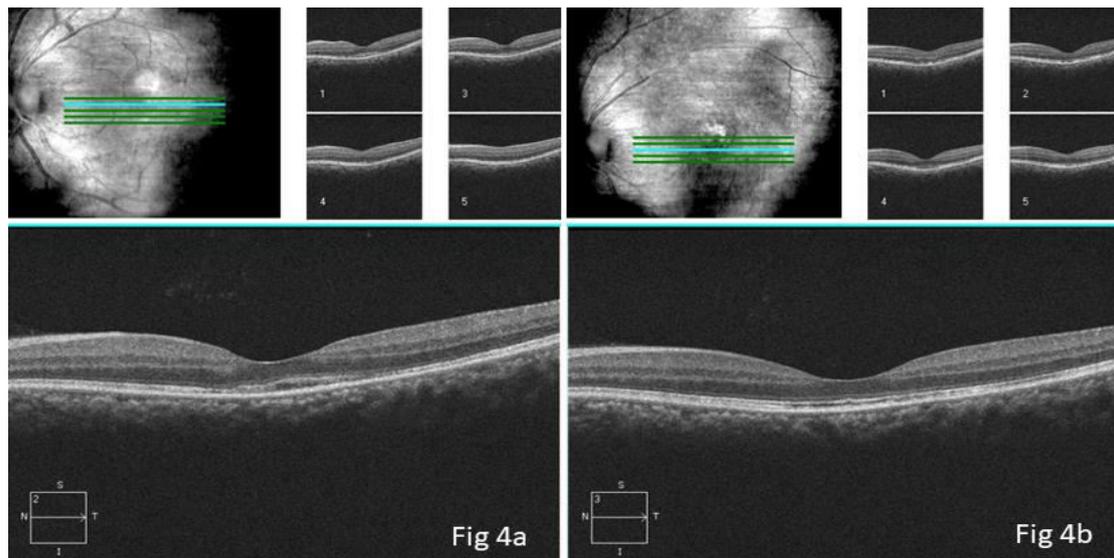


Figure 4a - 1 month follow-up OCT scan of left eye showing a flat retina with trace subretinal fluid and decrease in choroidal thickness

Figure 4b – 1 year follow-up OCT scan of left eye showing remodeling of outer retina at the macula and normal retinal architecture

3. DISCUSSION

Vogt-Koyanagi syndrome is characterized by uveitis, alopecia, poliosis, vitiligo and dysacusia, whereas Harada's disease is characterized by bilateral exudative uveitis with or without pleocytosis of cerebrospinal fluid.^[2] The course of the disease includes 4 stages, namely, prodromal, acute uveitis, convalescent and chronic/recurrent uveitis and the clinical features vary depending upon the disease stage.^[2] If diagnosed and treated in the early stages, the chances of the disease progressing further or recurrences go significantly down. The prognosis of the disease is mainly dependent on the duration and the number of recurrent episodes of inflammation.^[3] Lai TY et al in their study showed that patients receiving treatment for less than 6 months were more likely to have recurrences (58.8%) compared to those treated for 6 months or more (11.1%).^[4]

Systemic steroids are the mainstay to control active inflammation, prevent recurrences and also reduce the incidence and severity of extraocular manifestations.^[2] But with recent evidences coming up, Immunosuppressant therapy is considered to be the first-line treatment and have been associated with lesser evidences of recurrence.^[5] The positive side is that the long term systemic side effects of corticosteroid are prevented, and patients on immunosuppressants like Azathioprine, Mycophenolatemofetil and Cyclosporin A are reported to have better visual acuity outcomes when compared to corticosteroid therapy along.^[5] The down side is that the patient has to be monitored with serial systemic tests at timely intervals as long as the patient is on therapy, and most of these drugs could be very expensive on a long run, and procurement could be an issue especially in developing nations.

In our case, we suspected that this was unlikely to be the first attack of the disease since there were chorioretinal atrophic patches already present in both eyes. Hence, the patient was started on early immunosuppressive therapy and oral steroids were tapered off within one month. Azathioprine was selected in conjunction with a rheumatologist's opinion due to its good efficacy in this disease, cost effectiveness, less systemic side effects and ease of availability in our vicinity. [6] The immunosuppressants were continued till 9 months with sequential monitoring of blood counts and renal function. We believe she did not develop any systemic changes or recurrent ocular manifestations henceforth.

4. CONCLUSION

VKH syndrome has good prognosis if dealt on time. Our case highlights the importance of early detection of disease, commencing with an early immunosuppressive therapy and following the patient long term.

COMPETING INTERESTS

The authors declare that they have no competing interests.

FINANCIAL INTERESTS

Nil

PATIENT CONSENT

The patient has viewed the content and images of this case report and has consented to the submission of the case report for publication.

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