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## HIGHLIGHTS

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Photo Essay

# Angiographic and spectral domain optical coherence tomography features in case of Vogt–Koyanagi–Harada disease

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**Key words:** SD – OCT, FA, ICG, VKH

A 13-year-old male patient came with diminution of vision in right eye for last 10 days. His best-corrected visual acuity (BCVA) was 20/120 OD and 20/30 OS. Anterior segment OU was normal. Dilated fundus OU showed multiple serous retinal detachments, elevation of the peripapillary retinochoroidal layer and hyperemia of optic nerve head [Fig. 1]. Spectral domain optical coherence tomography (SD-OCT) and combined fluorescein-indocyanine green angiography (FA-ICGA) confirmed the diagnosis of Vogt–Koyanagi–Harada (VKH). SD-OCT showed multilobular serous retinal detachment, subretinal septas, and hyperreflective dot reflexes in subretinal fluid [Fig. 2]. Early-phase FA showed multiple points of dye leakage at the level of the retinal pigment epithelium (RPE), and late-phase FA showed pooling of dye [Fig. 3]. ICGA revealed multiple hypofluorescent dark spots during the early and late phase [Fig. 3]. Following the course of intravenous pulse therapy and oral steroids, BCVA improved to 20/20 OU with resolution on OCT after 1-month [Fig. 4].

## Discussion

Vogt–Koyanagi–Harada disease is a bilateral granulomatous panuveitis associated with autoimmunity against the melanocytes accompanied by neurologic, auditory, and/or integumentary symptoms and signs. The acute uveitic stage of VKH is characterized by bilateral anterior and/or posterior segment involvement with exudative retinal detachment.[1]

In acute stage VKH, specific fundus fluorescein angiography findings include choriocapillaris filling delay, multiple pinpoint leakage at the level of RPE, choroidal folds, and pooling of dye in areas of serous detachment in the late phase.[2]

Indocyanine green angiography shows early choroidal stromal vessel hyperfluorescence and leakage, fuzzy choroidal stromal vessels in the intermediate phase, and the presence of hypofluorescent dark spots.[3]

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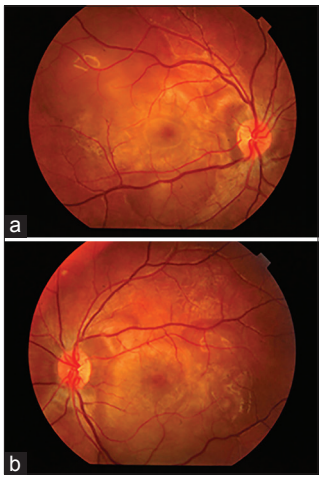


**Figure 1:** Fundus photograph of OD (a) and OS (b) showing multiple serous retinal detachments, elevation of the peripapillary retinochoroidal layer, and hyperemia of optic nerve head

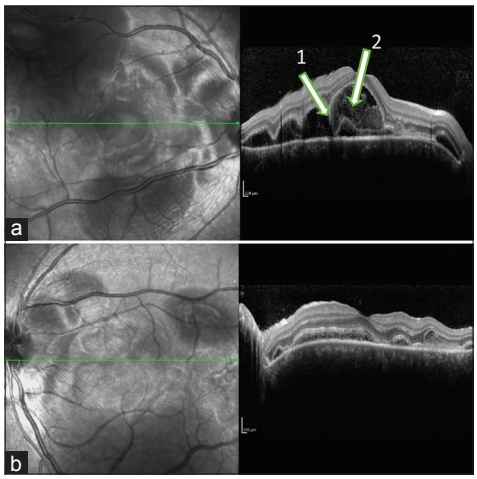


**Figure 2:** Spectral domain optical coherence tomography of OD (a) and OS (b) showing multilobular serous retinal detachment in OU, subretinal septas (1) (c) and hyper-reflective dot reflexes (2) (d) seen in OD

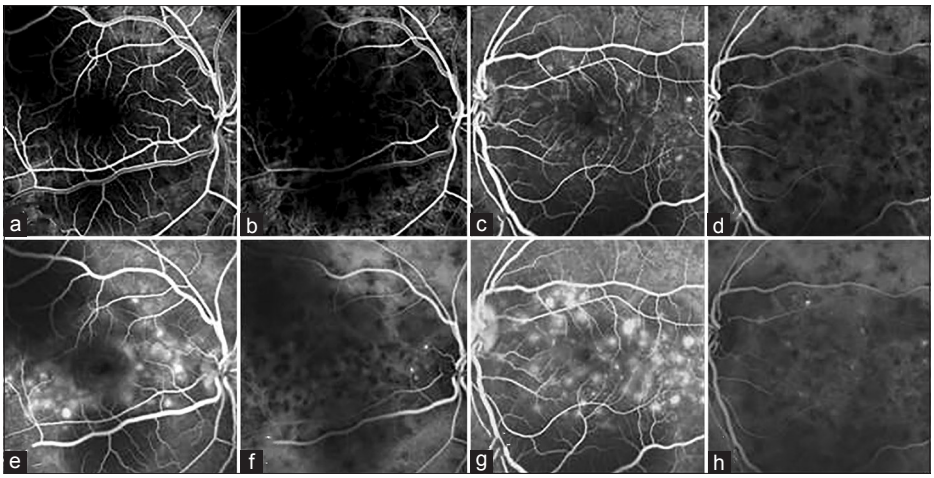


**Figure 3:** Fluorescein angiogram early phase of OD (a) and OS (c) showing multiple pinpoint leakage and late phase of OD (e) and OS (g) showing pooling of dye. Indocyanine green angiography OU (b, d, f, h) showing hypofluorescent dark spots in both early (b and d) and late phases (f and h)

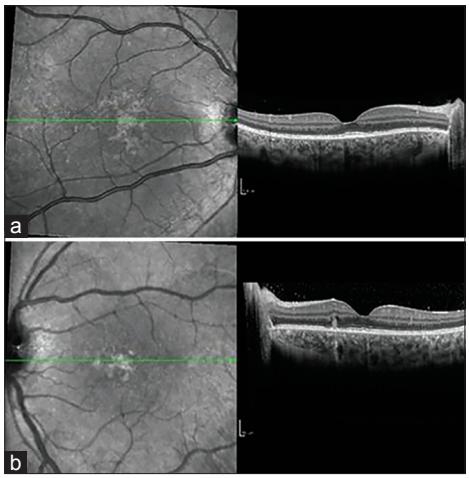


**Figure 4:** Spectral domain optical coherence tomography 1-month post steroid treatment of OD (a) and OS (b) showing resolution

Optical coherence tomography reveals multilobular serous retinal detachment and subretinal septas that divide the subretinal space into several compartments which contain numerous hyper-reflective dot reflexes.[4] These represent inflammatory products like fibrin. Undulations and bumps on the RPE surface have also been described.[5] There is complete resolution of the serous retinal detachments and subretinal septas after steroid pulse therapy.

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