Vogt-Koyonagi-Harada-like Disease Induced by Hepatitis C Treatment - Twice

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Introduction

- Vogt-Koyanagi-Harada (VKH) disease is an autoimmune disease involving inflammation of melanocyte-containing tissues (e.g. uvea, ear, meninges)
- While panuveitis with serous retinal detachment is the most common phenotype, there are also patients with a predominantly papillitis-like picture[1,2]

Case Presentation

- 55-year-old AA woman presented to an outside office for blurry vision and floater in left eye. Her BCVA was 20/20 OD and 20/200 OS with optic disc edema OU. She was admitted to hospital for 3-day course of IV methylprednisolone and discharged on high dose oral prednisone with slow taper
- PMHx significant for chronic hepatitis C recently treated with Mavyret (glecaprevir and pirbentsavir). She had a remote history of partial treatment with interferon alpha 12 years ago
- On 3-week follow-up after hospitalization, BCVA HM OD and CF OS. Uveitic lab-work, LP, and MRI brain and orbit all unremarkable. She was referred to a local retina specialist
- At follow-up with a local retina specialist, images from 12 years ago were discovered (Figure 1). At that time, the patient was seen for decreased vision during interferon therapy and found to have focal serous retinal detachments, and vascular leakage, all depicting a VKH-like picture. This was why interferon was discontinued
- She presented to SUNY Upstate eye clinic for second opinion. She had BCVA of CF1' OU and bilateral optic pallor without any signs of active ocular inflammation on exam. OCT EDI and B-scan showed choroidal thickening (Figure 2).
- A diagnosis of the papillitis subtype of VKH was made and she was referred back to the retina specialist for a steroid injection

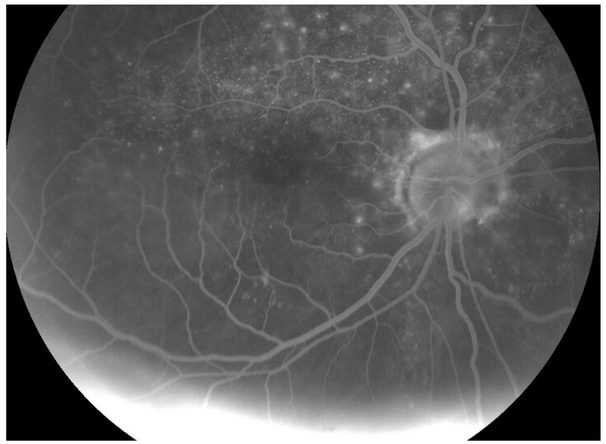

Figure 1. FA showing numerous hyperfluorescent pinpoint leakage - classic 'starry sky' VKH picture found in outside retina office records when patient was seen 12 years ago while on interferon alpha treatment

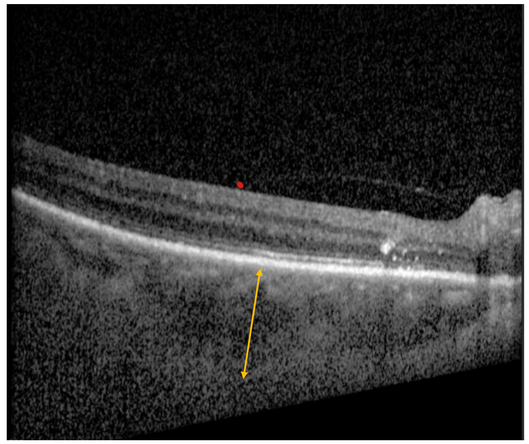

Figure 2. OCT mac EDI showing thickened choroid, serving as a proxy for disease activity in papillitis type of VKH-like disease[3]

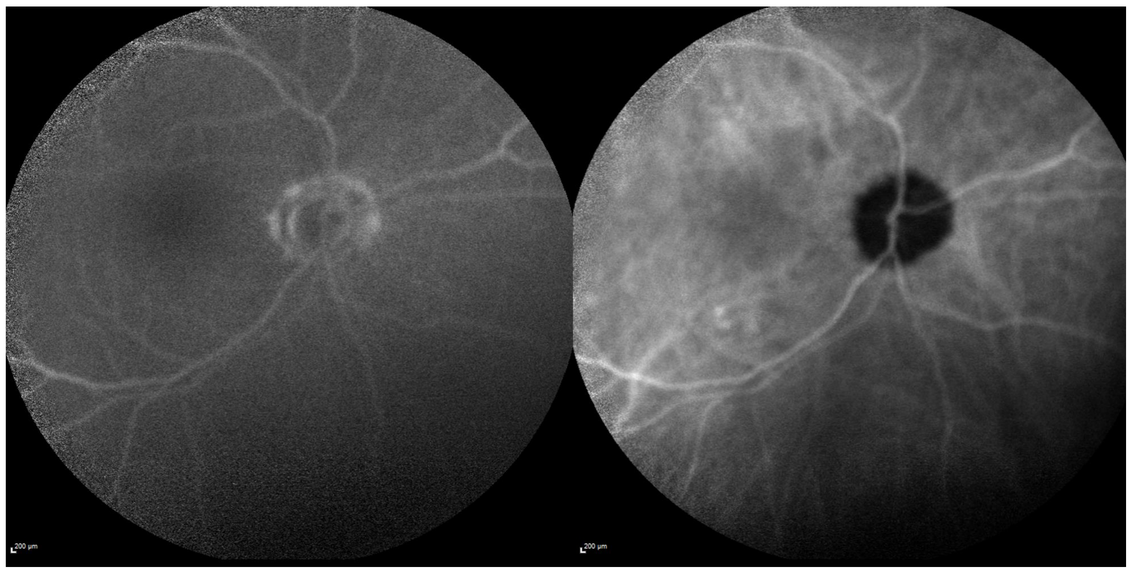

Figure 3. FA showing staining at the nerve head and ICGA showing ICG choroidal vascular flow void on initial presentation to SUNY Upstate eye clinic

Discussion

- The precise cause and pathophysiology of VKH is unknown. A VKH-like syndrome has been reported to be triggered by certain medications including checkpoint inhibitors and hepatitis C treatments[4,5]
- Our patient developed VKH-like inflammation twice, approximately 12 years apart, each time while on hepatitis C therapy, and with complete quiescence of disease in between
- Her first episode was a classic VKH picture induced by interferon alpha. The second episode was a papillitis picture induced by new hepatitis C treatment glecaprevir and pirbentsavir
- There have been previous case reports of VKH-like disease in patients with treatment for hepatitis C virus with interferon alpha. Interferon alpha is thought to induce generation of autoimmune response and is implicated with autoimmune diseases, including VKH[5]
- To our best knowledge, Mavyret (glecaprevir and pibrentsavir) has not been reported to be associated VKH-like disease

Conclusion

- Patients presenting with a VKH-like uveitis should be asked about medication history for treatment of hepatitis C
- The papillitis subtype is rare but should be considered in patients with unusual optic neuritis

References

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