Bilateral persistent placoid maculopathy following COVID-19 vaccination

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Background

- Persistent placoid maculopathy was originally described by Golchet et al in 2006.
- Idiopathic bilateral chorioretinopathy, most commonly seen in Caucasian men in the 6-7th decades of life
- No viral/flu-like prodrome
- Eyes typically quiescent
- Vision is normally preserved early on but may deteriorate due to CNV, RPE atrophy and disciform scarring
- 30 cases in total reported in case reports/series

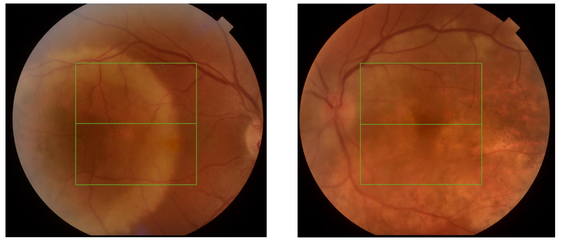
Case presentation

- 58-year-old man otherwise fit & healthy
- Developed "rash" on palms and feet since 1st dose AstraZenaca vaccine in March 2021
- Diagnosed with palmoplantar pustulosis and palmar psoriasis in June 2021 by dermatologist
- Had 2nd dose AstraZenaca vaccine in July 2021, when psoriasis worsens and was started with 60mg oral Prednisolone
- August 2021: deteriorating vision- BE VA HM

Bloods

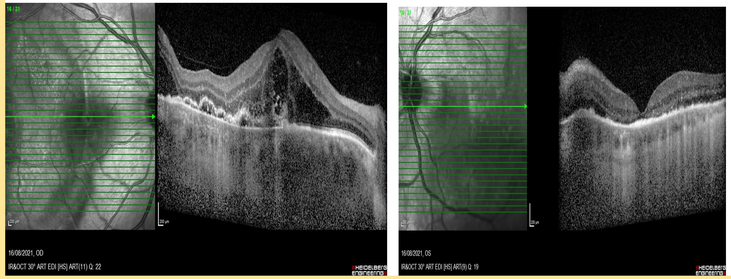
- Full blood count: WCC 13, Platelet 468, Neutrophil 10.97, Plasma viscosity 1.91
- ESR 66, CRP 27
- Urea & electrolytes, liver function test, bone profile normal
- Autoimmune screen: MPO-ANCA raised, otherwise negative
- Infective screen: Q-gold negative, VDRL negative, HIV negative

Investigations



Fundus photograph:
plaque-like hypopigmented, white/yellowish foveal/perifoveal lesions sparing the peripapillary area (multifocal along vascular arcades)

Fundus autofluorescence:
Specked hyperautofluorescence for acute lesions but hypoautofluorescence as RPE cells atrophy



OCT Macula:
ONL and photoreceptor outer segment/RPE hyperreflectivity, significant subretinal fluid in the right eye macula, also signal attenuation at areas of RPE atrophy with choroidal hyperreflectivity

Differential diagnoses

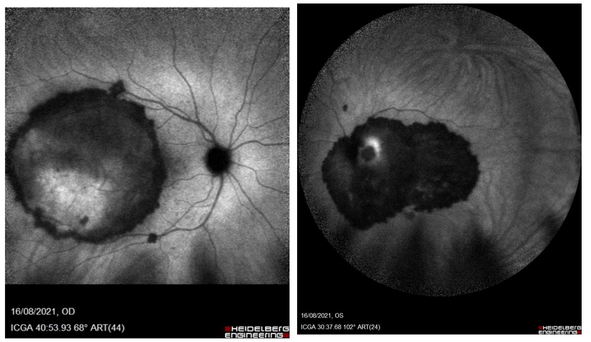
- Persistent placoid maculopathy
- Macular serpiginous choroiditis
- Acute posterior multifocal placoid pigment epitheliopathy

Interventions and Outcome

- Positive MPO-ANCA prompted rheumatology review
- No evidence of renal/pulmonary involvement, unlikely Granulomatosis with polyangiitis
- Active lesions and subretinal fluid on retina responded to oral corticosteroid, with gradual functional improvement.

FFA & ICG

FFA: early hypofluorescence with late punctate hyperfluorescence fill-in/staining



ICG: early and persistent hypocyanescence plaques

Conclusion

- COVID-19 vaccination has been accompanied by reports of inflammatory events.
- Our case demonstrated a likely inflammatory or autoimmune response to the COVID-19 vaccine affecting choriocapillaris causing hypoperfusion/ischaemia/vasculitis.

References:
1. Golchet PR, Jampol LM, Wilson D, Yannuzzi LA, Ober M, Stroh E. Persistent placoid maculopathy: a new clinical entity. Ophthalmology. 2007 Aug 1;114(8):1530-40.
2. Kolomeyer AM, Brucker AJ. Persistent placoid maculopathy: a systematic review. Retina. 2018 Oct 1;38(10):1881-95.