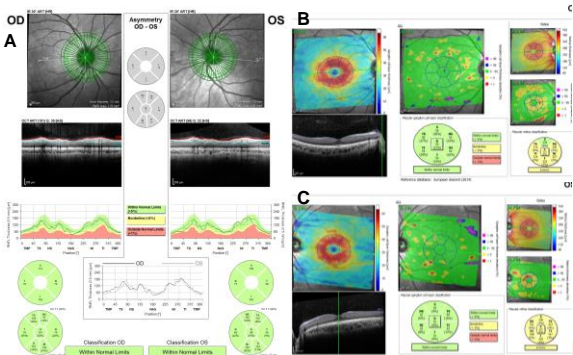


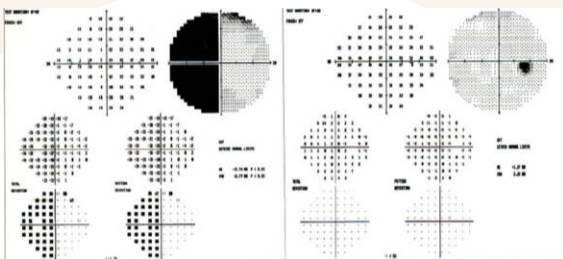
## Case report:

A 13-YO Caucasian girl was referred for neuro-ophthalmologic examination 2 months after developing blurred vision and pain in the left eye. The visual loss was observed one month following SARS-CoV-2 infection. On examination BCVA was 20/20 in the right eye, and 20/200 in the left eye. Fundi examination was normal on the right and showed hyperemia of the optic disc and venous congestion in the left eye. She could read 10/10 of the Ishihara color plates with the right eye, and 6/10 plates with the left eye. There was temporal hemianopia on field examination of the left eye. The remaining of the neurological examination was unremarkable. OCT showed normal peripapillary retinal nerve fiber layer thickness in both eyes, but macular thickness was slightly decreased in both eyes (< 5%). Serum search for AQP4-IgG was unrevealing whereas search for MOG-IgG was not performed. Cerebrospinal fluid analysis disclosed 3 cells/mm<sup>3</sup> (60% were neutrophils), and protein content of 24 mg%. Search for CSF specific oligoclonal bands was not performed. Brain MRI showed a small T2-hyperintense lesion in the intraorbital segment of the left optic nerve with no gadolinium enhancement. The patient received IV pulses of methylprednisolone for 5 days but had no visual recovery.

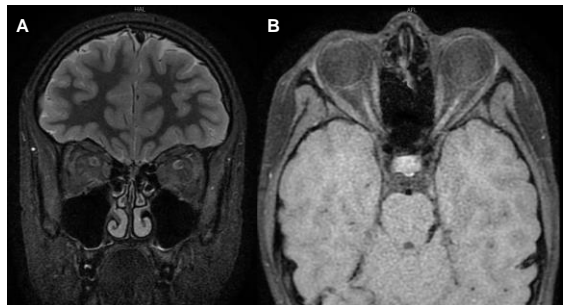
**Figure 1.** OCT showing the peripapillary retina of both eyes (A), total thickness of the retina and macular ganglion cell layer in the right (B) and left (C) eyes.



**Figure 2.** Field examination showing temporal hemianopia of the left eye.



**Figure 3.** Brain MRI showing mild hypersignal in the left optic nerve.



## Discussion:

Previously reported neuro-ophthalmologic complications of SARS-CoV-2 infection include retinal vasculitis, papillophlebitis, increased intracranial pressure and optic neuritis. Most cases of optic neuritis following SARS-CoV-2 infection have been reported in adults. Our patient was a child who developed optic neuritis one month after COVID-19. Only two months later she was given IV pulses of steroids with no response.

## Final comments:

This report shows that optic neuritis following SARS-CoV-2 infection may occur in children and be associated with poor visual outcome.

## References:

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