An Attempt to Save Vision in Idiopathic Panuveitis: A Case Report

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INTRODUCTION

- Uveitis is a leading cause of preventable blindness worldwide. Panuveitis is defined as inflammation involving the iris, ciliary body, and choroid. Uveitis is classified as infectious, noninfectious, or masquerade based on etiology.

- Noninfectious uveitis is managed with corticosteroids, with immunosuppressants or biologics reserved for chronic or refractory cases. We report a severe idiopathic panuveitis unresponsive to intravenous steroids and TNF inhibitors, where vitrectomy served as a therapeutic option after failure of maximal medical therapy.

CASE PRESENTATION

A 25-year-old female with no prior medical history was admitted for evaluation of bilateral panuveitis with retinal detachment after failing oral prednisone therapy. She reported progressive vision loss, severe bilateral eye pain (8/10), and photosensitivity for several months. Vision was limited to light and dark perception in the right eye and severely blurred in the left. There were no systemic symptoms or family history of autoimmune or infectious disease. On examination, slit-lamp and fundus findings showed severe intraocular inflammation (Table 1). B-scan ultrasonography revealed complete retinal detachment in both eyes with mild vitreous debris.

Differential Diagnosis:
Extensive workup for autoimmune (SLE, sarcoidosis, ANCA-associated vasculitis, Behçet's disease) and infectious etiologies (tuberculosis, syphilis, HIV, hepatitis) was negative.

Treatment:
The patient received intravenous methylprednisolone (1 g/day for 3 days) with minimal improvement. Persistent inflammation and bilateral retinal detachment warranted surgical repair. Despite systemic corticosteroids and infliximab (5 mg/kg), vision remained poor. Two months after symptom onset, she underwent bilateral phacoemulsification with intraocular lens placement and pars plana vitrectomy with silicone oil tamponade for vision preservation.

Outcome and Follow-up:
At two weeks postoperatively, the patient reported no significant improvement in vision but remained under close ophthalmologic follow-up.

LEARNING POINTS

1. Uveitis is one of the major causes of blindness in the world.

2. Recent advances in laboratory studies have made it possible to order selective tests based on a patient's symptoms and physical exam. This is not only time saving but also cost effective.

3. Early diagnosis, treatment and patient compliance are the key factors in saving vision for non-responders to anti-inflammatory therapy.

INVESTIGATIONS

	Reference range	Patient's results
SSA & SSB (Anti-Sjogren's Syndrome A&B)	0 - 40 AU/mL	4 and 2 AU/mL
ANA	<1:80	<1:80
ANCA	None	None
ENAI	0-19 units	2 units
C3, C4	Normal	Normal
Anti dsDNA	<1:10	<1:10
Anti smith antibodies	0- 40 AU/mL	2 AU/mL
CRP	< 8 mg/dL	<3 mg/dL
ESR	<20 mm/hr	3 mm/hr
Anti- RNP		
Anti- CCP	< 5 U/mL	5 U/mL
Anti-IL 1b	<=6.7 pg./mL	6 pg./mL
HIV antigen/ antibody	Non-reactive	Non-reactive
RPR	Non-reactive	Non-reactive
QuantiFERON TB gold test	Negative	Negative

DISCUSSION & CONCLUSION

Uveitis can be infectious or noninfectious, though most cases are idiopathic. Infectious causes such as syphilis, tuberculosis, Lyme disease, Whipple's disease, toxoplasmosis, and herpes viruses must be ruled out before immunosuppression. Noninfectious etiologies are usually autoimmune, commonly linked to spondyloarthropathies like ankylosing spondylitis, psoriatic arthritis, and IBD.

In this patient, extensive workup was negative. Despite high-dose steroids and TNF inhibitors, inflammation persisted, resulting in bilateral vision loss. Early initiation of systemic immunosuppressants and biologics (adalimumab, infliximab, rituximab, tocilizumab) reduces steroid dependence and vision-threatening complications. Vitrectomy may aid refractory cases by clearing inflammatory mediators and managing retinal detachment or vitreous opacity.

CONCLUSION
Idiopathic uveitis usually responds to corticosteroids, but refractory forms may cause irreversible blindness despite aggressive therapy. Prompt recognition, exclusion of secondary causes, early use of immunosuppressants or biologics, and multidisciplinary management are essential. Surgical options like vitrectomy should be considered when medical therapy fails.

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