



An Unexpected Response: Cyclosporine Ophthalmic Emulsion (Restasis®) on Bilateral Scleritis

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INTRODUCTION

- **Scleritis** = Severe vision threatening inflammation of the white colored outer part of the eye
- **3 Main Types:** Diffuse, Nodular, Necrotizing — inflammatory (40-50%), idiopathic (30-40%), infectious (5-15%)
 - **Presentation:** Ocular pain, Lacrimation, Diffuse Eye Redness, and Photophobia
- **Diagnosis:** Clinical+ Slit-Lamp exam (**deep scleral violaceous hue**) - “posterior scleritis” needs Ultrasound or CT
 - **Prognosis:** ~14% with scleritis develop significant vision loss in 1 year
 - **First Line Treatment:** Topical Corticosteroid Eyedrops + Oral NSAIDs

CASE PRESENTATION

Patient A: 29-year-old female with chronic bilateral scleritis, idiopathic panuveitis, and dry eye syndrome.

Patient B: 63-year-old male with chronic bilateral nodular scleritis.

- **Treatment History:** Poor response to traditional therapies. Initiated Restasis® for bilateral scleritis.
- **Clinical Outcome:** Significant improvement in scleritis symptoms, stable scleral inflammation.

- **Treatment History:** Unresponsive to artificial tears and Xiidra® (Lifitegrast); significant improvement with Restasis®
- **Clinical Outcome:** Notable reduction in scleritis symptoms with Restasis®, plan to simplify regimen.

DISCUSSION

- As seen in these two case studies, bilateral scleritis improved with Restasis® despite poor response to traditional treatments.
- Although Restasis®, also known as 0.05% cyclosporine ophthalmic emulsion, is commonly used for chronic dry disease by reducing inflammation and increasing tear production. Restasis® may improve scleritis by the following mechanisms:
 - **Anti-Inflammatory Effects:** Suppressing inflammation by inhibiting inflammatory T cell response and promoting healing of scleral tissue.
 - **Increased Tear production:** Stimulating tear production to help maintain ocular surface health and alleviate discomfort as scleritis can lead to a cascade of dryness and irritation.
- **Sparse Literature:** A separate case study (Gumus et al., 2009) found topical 0.05% cyclosporine A provided effective long-term control of idiopathic orbital myositis with scleritis, particularly in those with recurrent disease or adverse systemic effects. While another older case study (Rosenfeld et al., 1960) reported successful 4-week resolution of necrotizing scleritis using topical 2% cyclosporine, followed by a 12-week taper, with no recurrence observed in the following year.

CONCLUSION

- **Efficacy in Scleritis:** Preliminary evidence suggests Restasis® may be effective in managing scleritis symptoms in patients that have not responded to traditional therapies.
- **Potential for Broader Application:** May serve as a valuable addition to the scleritis treatment regimen.
- **Need for Further Research:** Emphasizes the importance of larger-scale, controlled studies to validate cyclosporine’s topical effects on scleritis patient.
- **Clinical Implications:** Introduction of Restasis® could change the standard treatment approach, improving long term patient outcomes and tolerability in scleritis management especially in recurrent or steroid-averse cases.

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ACKNOWLEDGEMENTS

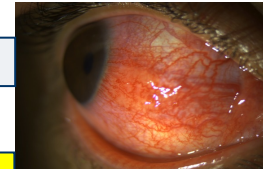


This study was funded in part by unrestricted grants from Research to Prevent Blindness, Inc. New York, New York and Lions District 20-Yr, Syracuse, New York. No other significant financial interests or relationships to disclosure.



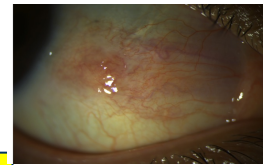
Patient A

OD

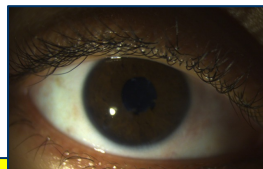


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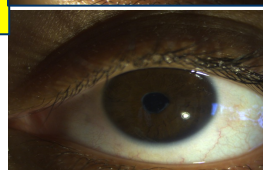
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Week 2

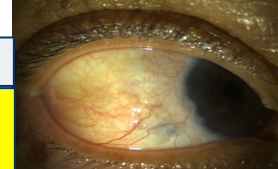


Week 7



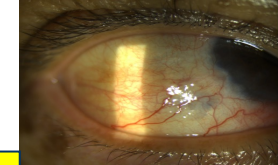
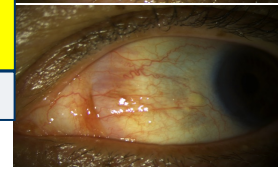
Patient B

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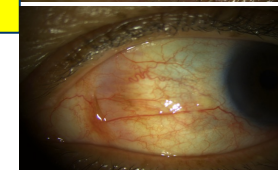


Week 0*
Started Restasis® 3 days before imaging

OS



Week 4



Week 11

