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Topical cyclosporine A 0.05% for recurrent anterior uveitis

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Background

- Prednisolone or other steroid agents are the most common therapy for anterior uveitis
- Side effects of steroid therapy includes increase in IOP, cataract, band keratopathy, cystoid macular edema, and permanent vision loss
  - These risks are often dose dependent

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Background

- Cyclosporine A 0.05% is a well tolerated immunosuppressive drop that is commonly used to treat dry eye syndrome
- Oral cyclosporine is used to treat refractory uveitis
- There are no current reports of topical cyclosporine A 0.05% used to treat anterior uveitis

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Purpose

- To evaluate the effectiveness of treatment with cyclosporine A 0.05% eye drops in reducing frequency and severity of recurrences in patients with recurrent anterior uveitis.

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Study Design

- A retrospective case-crossover study
- Chart review from 2002-2011 of patients with anterior uveitis treated by one cornea specialist at the Kellogg Eye Center
- Demographics, episodes of anterior uveitis, severity of episodes, and treatment before and after initiation of cyclosporine A 0.05%.
- Patients with a history of herpetic disease were excluded

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Medication Summary

	Control Period	Cyclosporine period
Mean follow-up (months)	25.2 Range 3–139 Standard deviation 46.2	29.8 Range 15-48 Standard Deviation10.9
Topical NSAID	5/8	6/8
Topical steroid	4/8	3/8
Systemic steroid	3/8	0/8

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Characteristics of Uveitis Episodes

	Control Period (standard deviation)	Cyclosporine Period (standard deviation)	p - value
Average episodes/year	4.3 (2.5)	0.36 (0.32)	0.03
Average duration of episodes (days)	41.6 (20.5)	13.3 (14.0)	0.002
Average days of uveitis/days of follow-up	0.24 (0.17)	0.02 (0.02)	0.006
Average max AC cell grade per episode	1.2 (0.7)	0.53 (0.59)	0.07

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Results

- Patient who were on cyclosporine A 0.05% had fewer flares (p= .03) that were shorter in duration (p=.002) than while on traditional treatment only
- No patients stopped cyclosporine A 0.05% for side effects
  - The only side effect reported was stinging (n =1)
- One patient discontinued cyclosporine A 0.05% because she had been free of recurrence for 10 months
  - The patient presented with a flare one month after discontinuation

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Limitations and Future Directions

- Study sample was small, retrospective, and not randomized or masked

- Recommend a large, prospective, and randomized trial for further evaluation

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