

Shield Removal

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9 year old Male patient

C/O whitish discoloration OD

Bilateral excessive lacrimation ,severe itching , OD> OS

On topical steroids →no response.



Examination

	OD	OS
Vision	HM	0.7
Palpebral conjunctiva	Giant papilla	Giant papilla
Bulbar conjunctiva	Mild hyperemia	Horner Taranta spots
Cornea	Ulcer 5x6 mm Central Covered with elevated plaque	Peripheral erosions

Diagnosis

- Bilateral **VKC**
- Right: Central, **Grade C Shield Ulcer** covered with **plaque**



Management

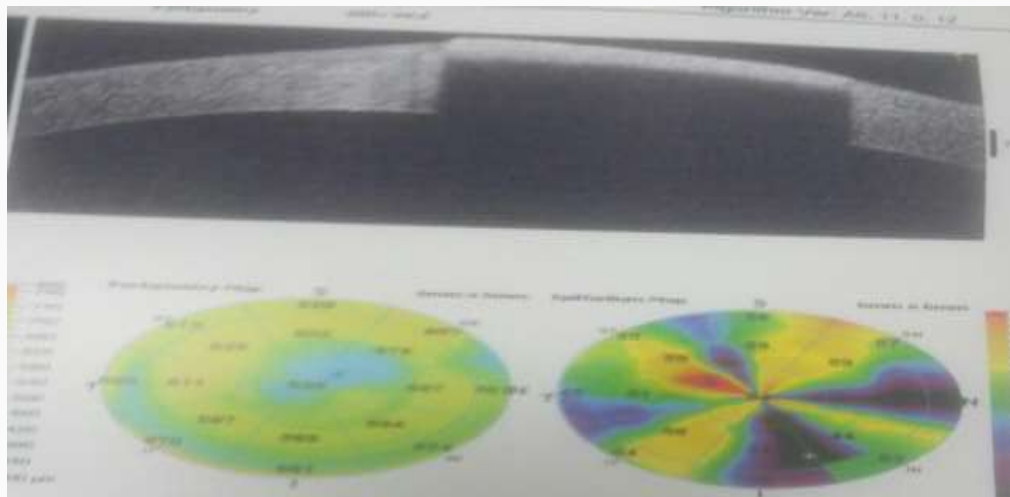
1. Increased the frequency of topical steroids for a week

No response

2. Tacrolimus eye drops(0.003% ,QID) however .

No response

3. ?? Autologous serum (for re-epithelialization)



4. Disarmament



-
- **Topical moxifloxacin and lubricants.**
 - Stopped antiallergics
 - First day post operative → Incomplete healing
 - Severe pain → **added NSAID**

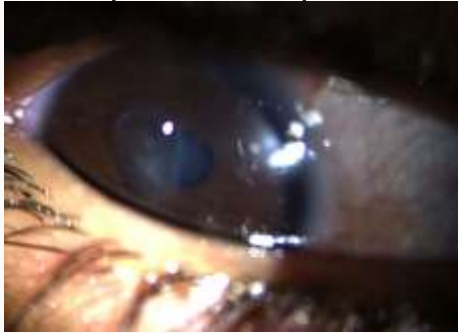
3 days post operative
complete healing

With flouresin stain



1 week post operative

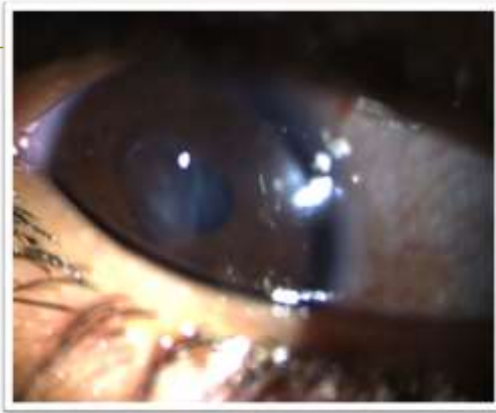
- Stopped antibiotics



Pre



Post



Pre



Post



Review of Literature

- Shield ulcers uncommon complications of severe VKC (3.25%)
- Its aetiology :
 - Mechanical theory
 - Toxic theory
- Mainly in males
- first decade

Cameron JA. Shield ulcers and plaques of cornea in vernal keratoconjunctivitis. *Ophthalmology* 1995; 102: 985–993.

- The largest study was done on a Saudi population
- 66 shield ulcers and/or plaques in 55 eyes of 41 patients with VKC
- It described the clinical presentation, treatment, and outcome

Cameron classification

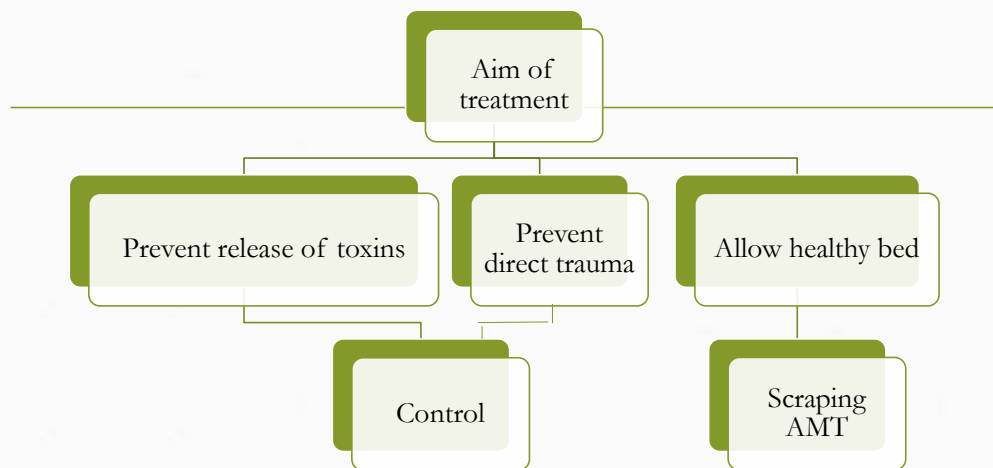
- Grade 1, ulcer with transparent ul
- Grade 2: Translucent ulcer base 1
or yellow deposits
- Grade 3 elevated Plaque



Cameron JA. Shield ulcers and plaques of cornea in vernal keratoconjunctivitis. *Ophthalmology* 1995; 102: 985–993.

Complications

- Infection
- Scaring
- Perforation
- Amblyopia
- Treatment



Management

- It differs according to the stage

Stage 1 typically had rapid re-epithelialization with medical treatment alone

(steroids , cromoglycate, antibiotics ,cyclosporine(0.05-2%) , tacrolimus(0.003% ED or 0.1%EO)oral antihistaminic and Omalizumab)

Stage 2 medical treatment or surgical

Only 8 (25%) medical treatment alone; re epithelialization time averaged 21 weeks and

Cameron JA. Shield ulcers and plaques ofcornea in vernal keratoconjunctivitis. *Ophthalmology*1995; 102: 985–993.

Stage 3 medical but prolonged, sloughed alone , surgical scraping

MEDICAL TREATMENT

Pediatr Allergy Immunol. 2015 May;26(3):256-261. doi: 10.1111/pai.12360.

Eff **Tacrolimus vs. cyclosporine eyedrops in severe cyclosporine-resistant vernal keratoconjunctivitis: A randomized, comparative, double-blind, crossover study.** **vitis.**

Pucci N¹, Caputo R², di Grande L¹, de Libero C², Mori F¹, Barni S¹, di Simone L³, Calvani A³, Rusconi F⁴, Novembre E¹.

Shoughy SS¹, Jaroudi MO¹, Tabbara KF².

Surgeries

Primary :

scraping in the OPC or the OR
keratectomy with or without AMT

Secondary AMT

In Summary

- Shiled ulcer is a **rare** condition
- **Staging** guides **Treatment**
- Some ulcers respond well to **steroids**
- Do not hesitate in **removing the plaques**
- Do not forget **IOP and KC**

